TENDER DOCUMENT

FOR

Survey, Design, Development, Supply, Testing, Installation and Commissioning for Virtual Feeder Segregation of 11kV Feeders using Industrial Internet of Things (IIoT) based device on existing Agriculture Distribution Transformers supplying power to Agriculture Consumers with O&M for 5 Years and Development & Integration of Online Portal with Billing System for Complete Remote Monitoring and Control

TOWARDS

Virtual Segregation of 11 kV Feeders of 6 Nos. 33/11 kV Substation (2 Nos. in each DISCOM of Rajasthan)



JAIPUR VIDYUT VITRAN NIGAM LIMITED

Corporate Identification Number (CIN): U40109RJ2000SGC016486

Office of the Superintending Engineer (Regulation) Room No. 149, Old Power House Premises, Banipark, Jaipur-302016

> TELEFAX: 0141-2209533, Email - <u>sermdf@jvvnl.org</u> Website: www.energy.rajasthan.gov.in/jvvnl

NIT No: JVVNL / SE (REGULATION) / XEN (DSM) / VFS / TN-09

DISCLAIMER

The information contained in this tender document or subsequently provided to bidder(s), written or, verbal, by or on behalf of Jaipur Vidyut Vitran Nigam Limited (JVVNL) or any of its employees, is provided to bidder(s) on the terms and conditions of this tender document and its subsequent amendment(s).

This tender document is non-transferable and is neither an agreement nor an offer by JVVNL to the prospective bidders or any other person. The purpose of this document is to provide interested parties/ bidders with information that may be required by them in the preparation of their bid for stated scope of work.

Although adequate care has been taken while preparing the tender document, however, the bidders shall satisfy themselves that document is complete in all respects. If noticed, bidders shall intimate any discrepancy in the tender document to office of the undersigned within 3 days from the date of issuance of the tender document. If no intimation is received from the parties/ bidders within the stipulated period, it shall be assumed that the tender document is complete in all respects and fulfils the expectations of the bidders.

JVVNL, its officers, employees and consultants have made best efforts to provide as accurate and reliable information as possible. However, before submitting their bids, the bidders are expected to independently assess, verify, and validate the information/ data provided in the tender document.

JVVNL reserves the right to annul the bid process and/or reject any or all of the bids submitted in response to this tender document at any stage without assigning any reasons whatsoever. In such cases JVVNL will refund the Bid Security, if any, and cannot be subjected to any liability whatsoever due to such rejection/ cancelation.

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The bidder, regardless of the conduct or outcome of the Bidding Process, shall bear all its costs associated with or relating to the preparation and submission of its bid including but not limited to preparation, copying, postage, delivery fees, expenses associated with any demonstrations or presentations which may be required by JVVNL or any other costs incurred in connection with or relating to its bid.

LIST OF ABBREVIATIONS

1.	+	Plus (Addition)		
2.	AC	Alternating Current		
3.	AEN	Assistant Engineer		
4.	Ag.	Agriculture		
5.	BOQ	Bill of Quantity		
6.	BOS	Balance-of-System		
7.	CEA	Central Electricity Authority		
7. 8.	CEIG	Chief Electrical Inspector of Rajasthan		
9.	CERC	Central Electricity Regulatory Commission		
10.	COD	Commercial Operation Date		
10.	DC	Direct Current		
11.	DCU	Data Concentrator Unit		
12.	DISCOM			
13. 14.	DISCONI	Distribution Company		
		Department of Telecommunications, Govt. of India Distribution Transformer		
15.	DT			
16.	EMD	Earnest Money Deposit		
17.	GPS	Global Positioning System		
18.	GSS	Grid Sub Station		
19.	HES	Headend System		
20.	HP	Horsepower		
21.	HT	High Tension		
22.	IEC	International Electrotechnical Commission		
23.	IEEE	Institute of Electrical and Electronics Engineers		
24.	loT	Internet of Things		
25.	lloT	Industrial Internet of Things		
26.	IS	Indian Standard		
27.	IST	Indian Standard Time		
28.	JV	Joint Venture		
29.	kV	Kilo Volt		
30.	kW	Kilo Watts		
31.	kWp	Kilo Watt peak		
32.	Lol	Letter of Intent		
33.	LT	Low Tension		
34.	MCB	Miniature Circuit Breaker		
35.	MDAS	Meter Data Acquisition System		
36.	MeitY	Ministry of Electronics and Information Technology		
37.	MIS	Management Information System		
38.	MNRE	Ministry of New & Renewable Energy, Government of India		
39.	MWp	Mega Watt Peak		
		National Accreditation Board for Testing and Calibration		
40.	NABL	Laboratories		
41.	NIT	Notice Inviting RFP		
42.	0&M	Operations and Maintenance		
43.	OEM	Original Equipment Manufacturer		

44.	PBG	Performance Bank Guarantee		
45.	PCU	Power Conditioning Unit		
46.	PF	Provident Fund		
47.	PID	Potential-induced degradation		
40		Pradhan Mantri Kisan Urja Suraksha evam Utthaan Mahabhiyan		
48.	PM-KUSUM	Yojana		
49.	POA	Power of Attorney		
50.	POC	Proof of Concept		
51.	PSUs	Public Sector Undertakings		
52.	PVC	Poly vinyl chloride		
53.	RCCB	Residual Current Circuit Breaker		
54.	RDBMS	Relational Data Base Management System		
55.	REC Ltd.	Rural Electrification Corporation, Govt. of India		
56.	RERC	Rajasthan Electricity Regulatory Commission		
57.	RESCO	Renewable Energy Service Company		
58.	RFP	Request for Proposal		
59.	RISL	RajCOMP Info Services Ltd.		
60.	RMS	Remote Monitoring System		
61.	RoW	Right of Way		
62.	RTC	Real Time Clock		
62		Rajasthan Transparency in Public Procurement Act 2012		
63.	RTPP Act 2012	including any amendments issued thereto;		
64	64. RTPP Rules 2013 Rajasthan Transparency in Public Procurement Rule			
04.	KTPP Kules 2015	including any amendments issued thereto;		
65.	RTPP (Amendment)	Rajasthan Transparency in Public Procurement		
05.	Rules 2020	(Amendment) Rules, 2020		
66.	SCADA	Supervisory Control and Data Acquisition		
67.	SSI	Small Scale Industries		
68.	SMB	Sub Miniature version Board		
69.	TPI	Third-party inspection		
70.	TPIA	Third-Party Inspection Agency appointed by Discom		
71.	TRAI	Telecom Regulatory Authority of India		
72.	UAT	User Acceptance Test		
73.	-ve	Negative		
74.	W	Watt		
75.	WO	Work Order		
76.	Wp	Watt peak		
77.	XEN	Executive Engineer		

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SECTION - A: INTRODUCTION

A.1. Background

- 1.1.1. Jaipur Vidyut Vitran Nigam Limited (JVVNL) is a public utility company under the Department of Energy, Govt. of Rajasthan and is holder of the distribution and retail supply business licenses in the State of Rajasthan (hereafter referred as "DISCOM"). The Distribution Company came in to existence on 19 July 2000 pursuant to the "Rajasthan Power Sector Reforms Transfer Scheme, 2000" and restructuring undertaken in the State under which the vertically integrated Electricity Board (Rajasthan State Electricity Board or RSEB) was unbundled and the power generation, transmission and distribution business was segregated to form 5 successor companies viz.
 - a) Rajasthan Rajya Vidyut Utpadan Nigam Limited (RVUN) to manage the electricity generation business of erstwhile RSEB
 - b) Rajasthan Rajya Vidyut Prasaran Nigam Limited (RVPN) to manage the electricity transmission and bulk supply business of erstwhile RSEB.
 - c) Ajmer Vidyut Vitran Nigam Limited (JVVNL) to manage the electricity distribution and retail supply business of erstwhile RSEB in Ajmer City Circle, Ajmer District Circle, Bhilwara, Nagaur, Jhunjhunu, Sikar, Udaipur, Chittorgarh, Rajsamand, Banswara, Pratapgarh and Dungarpur Circles.
 - d) Jaipur Vidyut Vitran Nigam Limited (JVVNL) to manage the electricity distribution and retail supply business of erstwhile RSEB in Alwar, Bharatpur, Jaipur City, Jaipur District, Dausa, Kota, Jhalawar, Sawai Madhopur, Bundi, Baran, Tonk, Karauli and Dholpur Circles.
 - e) Jodhpur Vidyut Vitran Nigam Limited (JDVVNL) to manage the electricity distribution and retail supply business of erstwhile RSEB in Sriganganagar, Hanumangarh, Churu, Bikaner District, Bikaner City, Jaisalmer, Jalore, Barmer, Jodhpur City, Jodhpur District, Sirohi, Jalore, and Pali Circles.
- 1.1.2. Rajasthan Discoms strives to provide round the clock power supply to nonagriculture consumers to allow uninterrupted socio-economic activities of these consumers, but agriculture power needs could be fulfilled through 6 to 8 hours daily reliable supply depending on the season. Thus, block hours supply pattern is followed for agriculture supply in the state.
- 1.1.3. However, typically a rural feeder has multiple categories of consumer connections i.e. agriculture as well as non-agriculture consumers (as shown below) which makes it challenging for the Discoms to ensure differentiation in hours of supply between the two category groups of consumers.
- 1.1.4. After solarization under PM-KUSUM Component C, in order to feed the agriculture load / pumps using solar energy (feeder level solarization) and injection of excess solar energy into the grid (pump level solarization) generated in day-time only, it becomes imperative to operate such 11kV feeders having agriculture connections during sun-shine hours instead of existing block hour supply schedule.

- 1.1.5. To achieve the different supply requirements of Agriculture and non-agriculture consumers, ensure proper energy accounting and avoid misuse of subsidized energy by agriculture consumers, it is essential to have separate feeder for agriculture load.
- 1.1.6. In Rajasthan, most of the 11kV feeders are not having segregated agriculture load and thus requires agriculture segregation work to be carried out prior to solarization of pumps. The need of segregation of 11kV feeders is also highlighted by MNRE in KUSUM scheme guidelines and various communications related to scheme implementation.
- 1.1.7. Conventional method of segregating power supply of agriculture consumers is to have a separate feeder and distribution network for agriculture consumers. There are many implementation level challenges in terms of cost and time of laying down entire new distribution network for a particular set of consumers under conventional approach. In addition to this, Right of Way and land acquisition issues against laying down a new distribution network makes it more difficult to implement the same.
- 1.1.8. Recognizing the complexity and cost implications associated with conventional method of physical segregation of 11kV feeders, in Sep'21 MNRE also emphasized on "Virtual Feeder Segregation" approach using Advance Information and Communication Technologies such as IIoT (Industrial Internet of Things) to upgrade the existing Distribution Transformer into Smart Distribution Transformer. This reduces cost and time of feeder segregation process drastically and also reduces implementation complexities by eliminating right of way and land acquisition issues from the entire process.
- 1.1.9. 'Virtual feeder segregation' approach can enable remote / automated schedule based disconnection / connection of supply to the connected agriculture consumer using the existing distribution transformer. The solution can also help Discoms in monitoring the load and consumption pattern for better system / power procurement planning.

	Virtual segregation approach	Conventional approach	
1	Comparatively less capital required	Capital intensive	
2	Faster implementation as upgradation of existing transformer on rotational basis can be carried out	Long implementation period as new material (poles, conductor, etc) to be installed directly at site	
3	No RoW issue as only existing transformers are upgraded	RoW issues due to completely new line erection	
4	Automated schedule-based operation with remote configuration provision (i.e. individual farmers' transformer is turned ON and OFF automatically as per the block schedule)	Manual switching operation of entire feeder at substation level for block hour supply (3 phase supply during block hours and 1 phase supply during non-block hours)	
5	Consumer meter reading, theft incidents identification and control,	Meter reading, vigilance for theft control, transformer overload check	

1.1.10. Following are some key contrasting benefits of Virtual Feeder Segregation approach:

Virtual segregation approach		Conventional approach
transformer health monitoring can be done remotely		and monitoring done manually
6	No increase in line losses as no new line erected	Increased line losses due to increase in line length

A.2. Objective

2.1.1. JVVNL intends to select competent, experienced and eligible bidders for the work of Survey, Design, development, supply, testing, installation and commissioning for virtual feeder segregation of 11kV feeders using Industrial Internet of Things (IIOT) based Device on existing Agriculture Distribution Transformers supplying power to agriculture consumers with O&M for 5 years and development & integration of online portal with billing system for complete Remote Monitoring and Control.

SECTION - B: KEY DEFINITIONS

- (1) "Act" or "EA 2003" shall mean the Electricity Act, 2003 and include any modifications, amendments, and substitution from time to time;
- (2) "AVVNL" / "Ajmer Discom" shall mean Ajmer Vidyut Vitran Nigam Limited, Ajmer
- (3) "Authorized Officer" shall mean Officer Designated by Discom for specific task
- (4) **"Bid"** shall mean the "Proposal"/ "Quotation" submitted by eligible bidders for the work envisaged under this RFP
- (5) **"Bidder" or "Bidding Entity"** shall mean Bidding Company or a Limited Liability Company (LLC) or a Joint Venture or a Proprietary Concern or an Individual or a registered Partnership Firm submitting the Bid. Any reference to the Bidder includes an entity including its successors, executors and permitted assigns severally, as the context may require.
- (6) "Bidding Portal" shall mean www.eproc.rajasthan.gov.in
- (7) "CEIG" shall mean Chief Electrical Inspector to Government.
- (8) **"Chartered Accountant"** for bidders or its Parent, Affiliate or Ultimate Parent or any Group Company incorporated in India, "Chartered Accountant" shall mean a person practicing in India or a firm whereof all the partners practicing in India as a Chartered Accountant(s) within the meaning of the Chartered Accountants Act, 1949; For bidders or its Parent, Affiliate or Ultimate Parent or any Group Company incorporated in countries other than India, "Chartered Accountant" shall mean a person or a firm practicing in the respective country and designated / registered under the corresponding Statutes/laws of the respective country.
- (9) **"Company"** shall mean a body incorporated in India under the Companies Act, 1956 or the Companies Act, 2013, as applicable;
- (10) "Commissioning" with respect to the Project/ Unit as certified by JVVNL shall mean when the IIOT based device is retrofitter on Distribution Transformer (DT), tested prior to installation at site, DT is installed at site and remote monitoring and operation is successfully established as per the technical specifications in this RFP.
- (11) **"Conflict of Interest"** shall mean a Bidder may be considered to be in a conflict of interest with one or more Bidders in the same bidding process if they have a relationship with each other.
- (12) "Control" shall mean holding not less than 51% of voting rights or of paid-up share capital.
- (13) **"Controlling shareholding"** shall mean not less than 51% of the voting rights or paidup share capital in the Company/Consortium.
- (14) "Day" shall mean calendar day.
- (15) "Effective Date" shall mean the date of issuance of work order
- (16) "Electrical Inspectorate" shall mean Electrical Inspectorate Department Rajasthan

- (17) **"Engineer-in-Charge"** shall mean Concerned XEN (DDUGJY) / AEN (O&M) of Discom as decided by respective Discoms after acceptance of LoI issued by JVVNL.
- (18) "Equity" shall mean Net Worth as defined in Companies Act, 2013.
- (19) "eproc" shall mean electronic procurement system of Rajasthan.
- (20) **"Financial Closure" or "Project Financing Arrangements"** shall mean the agreements pursuant to which the Bidder has sought financing for the Power Project including the loan agreements, security documents, notes, indentures, security agreements, letters of credit and other documents, as may be amended, modified, or replaced from time to time, but without in anyway increasing the liabilities of JVVNL.
- (21) **"Financing Documents"** mean the agreements and documents (including asset leasing arrangements) entered/to be entered into between the bidder and the Financing Parties relating to the financing of the Project.
- (22) **"Financing Parties"** means Parties financing the Project, pursuant to Financing Documents.
- (23) "JVVNL" / "Jaipur Discom" shall mean Jaipur Vidyut Vitran Nigam Limited, Jaipur
- (24) **"JdVVNL" / "Jodhpur Discom"** shall mean Jodhpur Vidyut Vitran Nigam Limited, Jodhpur
- (25) **"Letter of Award" or "LOA"** shall mean the work order issued by JVVNL to the Selected Bidder for award of contract.
- (26) "LLC" shall mean Limited Liability Company.
- (27) "Month" shall mean calendar month.
- (28) "Nodal Officer" shall mean Superintending Engineer (Regulation), JVVNL, Jaipur
- (29) **"Net-Worth"** means the Net-Worth as defined in Section 2 of the Companies Act 2013.
- (30) **"NIT" / "RFP document" / "RFP" / "Notice Inviting Tender"** shall refer to this "Request for Proposal for Survey, Design, development, supply, testing, installation and commissioning for virtual feeder segregation of 11kV feeders using Industrial Internet of Things (IIOT) Based Device on existing Agriculture Distribution Transformers supplying power to agriculture consumers with O&M for 5 years and development & integration of online portal with billing system for complete Remote Monitoring and Control.
- (31) **"Ordering Authority"** shall mean Concerned Superintending Engineer of respective Discom who shall be responsible for placing the LOA after acceptance of LoI issued by JVVNL.
- (32) **"Paid-up share capital"** means the paid-up share capital as defined in Section 2 of the Companies Act, 2013.
- (33) "Payment Officer" shall mean Sr. AO (CPC) of respective Discom
- (34) **"Performance Bank Guarantee"** shall mean the irrevocable unconditional bank guarantee to be submitted by the successful bidder as per the RFP.

- (35) **"Contract Agreement"** shall mean the Agreement signed between the Bidder and JVVNL according to the terms and conditions of the standard contract enclosed with this RFP for the project implementation.
- (36) **"Rajasthan Discoms"** shall mean all 3 Discoms in Rajasthan namely: JVVNL, AVVNL & JdVVNL
- (37) **"Project Site"** means any and all locations where Agriculture Distribution Transformers of Discom are installed.
- (38) **"Selected Bidder" or "Successful Bidder"** shall mean the Bidder selected pursuant to this RFP
- (39) "Week" shall mean calendar week.

SECTION - C: KEY BID DATA

1	NIT No.	JVVNL/SE(REGULATION)/XEN(DSM)/VFS/ TN-08	
2	NIT Issue Date	28.06.2022	
3	Bidding portal	www.eproc.rajasthan.gov.in	
4	Bidding procedure	Single Stage Two Part Bidding	
5	Programme & detail of work / "Project"	Survey, Design, development, supply, testing, installation and commissioning for virtual feeder segregation of 11kV feeders using Industrial Internet of Things (IIOT) Based Device on existing Agriculture Distribution Transformers supplying power to agriculture consumers with O&M for 5 years and development & integration of online portal with billing system for complete Remote Monitoring & Control	
6	Work Area / "Site"	29 nos. 11kV feeders of 6 nos. 33/11kV substations (Two substations under each Discom of Rajasthan)	
7	Mode of bid submission	 Technical & financial bids complete in all respect in line with this tender is to be submitted online at the eproc bidding portal only. No hardcopy is to be submitted except for documents which are to be submitted on non-judicial stamp paper in original as per this RFP e.g. a) Bid Security / EMD b) All applicable undertakings as per this RFP c) Individual power of attorney d) Joint Venture agreement e) Joint Venture power of attorney 	
8	Contract Type	Turnkey Based	
9	Contract Duration	6 months installation & commissioning period + 5 Years O&M	
10	Selection criteria	Lowest Financial bid value (L1) basis	
11	Estimated Project Cost	Rs. 8.19 Crores	
12	Bid Security / EMD	2% of Estimated cost To be deposited in Physical/ Hard Form at the office of A.O. (PPM) JVVNL Jaipur, by way of DD / Banker's Cheque in favour of Jaipur Vidyut Vitran Nigam Limited payable at Jaipur OR Bank Guarantee ("BG") in favour of Superintending Engineer (Regulation) JVVNL, Jaipur from any scheduled commercial bank in India, prior to scheduled date & time of bid submission and the scanned copy of the same is to be uploaded on Bidding Portal along with technical bid. In case of SSI units please see Section B Clause 1.1.4.c	
13	Date of downloading	28.06.2022 from 06:00 PM	
14	Pre-bid meeting	Venue: DSM Hall, Old Power House Premises, JVVNL, Banipark, Jaipur Date & Time: 07.07.2022 from 11:00 AM	

15	Bid submission start	18.07.2022 from 02:00 PM
16	Last date of online	27.07.2022 from 02:00 PM
	submission of Bid	
	(Technical & Financial)	
17	Online Technical bid	28.07.2022 from 03:00 PM
	opening schedule	
18	Financial bid opening schedule	Shall be intimated to eligible & qualified bidders through eproc who successfully establish Proof-of-concept (POC) as per the required specifications of Discoms within 7 Days period from date of request by JVVNL after evaluation of Technical bid.
19	Cost of Tender Document	Rs. 2,950 inclusive of GST @18% Cost of tender document should be in favour of "Jaipur Vidyut Vitran Nigam Limited" payable at Jaipur and shall be deposited to the office of A.O. (PPM), JVVNL, Jaipur.
20	RISL E-procurement	Rs 1,180 inclusive of GST @18%
	processing Fees	Cost of e-procurement processing fees should be in favour of MD RISL, payable at Jaipur.
21	Bid Validity	90 days from the date of opening of online Technical bid.
22	Performance Bank	3% of the DISCOM wise awarded value.
	Guarantee (PBG)	To be submitted by selected bidder to respective Discom. PBG to be in favour of respective Discom's Ordering Authority and to be submitted at its office within 1 month of date of issuance of Work order. The PBG shall be initially valid from the date of issue until 2 months (i.e., sixty (60) days) beyond the total contract period of 5 year 6 months (6 months installation & commissioning period + 5 years O&M period) from date of issuance of work order. It shall be responsibility of selected bidder to get the PBG extended, if required, such that it is valid till 2 months after completion of total contract period of project.
		In addition to Performance Security as specified above, an Additional Performance Security shall also be taken from the successful bidder in case of Unbalance Bid Amount. The Additional Performance Security shall be equal to 50% of Unbalance Bid Amount. The same shall be deposited in lump sum by the successful bidder before execution of Agreement. It shall be deposited through Demand Draft/ Banker's cheque/ Bank Guarantee (BG). Further, the Additional Performance Security shall be refunded to the bidder/ Successful Bidder after satisfactory completion of the entire work. The Additional Performance Security shall be forfeited by the Discom when work is not completed within the stipulated period by the bidder/ Successful Bidder.

- **NOTE:** Bids are to be submitted online in electronic format on Bidding Portal with scanned copies of all required documents. Documents regarding Bid Security, Cost of Tender Document and RISL E-procurement processing Fees to be submitted in physical form as detailed in subsequent clauses.
- 1.1.1. Bidders who wish to participate in this tender, will have to register on Bidding Portal (bidders registered earlier on the Bidding Portal need not to get registered again). To participate in online tenders, Bidders will have to procure Digital Signature Certificate (Class II & Class III) as per requirement under Information Technology Act-2000 using which they can sign their electronic bids. Bidders can procure the same from any CCA approved certifying agency or they may contact e-Procurement Cell, Department of IT & C, Government of Rajasthan on the address e-Procurement Cell, RISL, Yojana Bhawan, Tilak Marg, C-Scheme, Jaipur, e-mail: eproc@rajasthan.gov.in.
- 1.1.2. Bidders are also advised to refer "Bidders Manual" available under "Downloads" section on Bidding Portal for further details about the e-tendering process.
- 1.1.3. The bidders are requested to submit their bids prior to scheduled date & time to avoid event of non-submission of their bids due to non-availability/ connectivity or any other issue of Bidding portal, at last moment or any reason whatsoever. The last date of submission of bids will not be extended in such circumstances.
- 1.1.4. It is mandatory for all the participating bidders to submit the following in original **(Envelope 1)** at the office of A.O. (PPM), JVVNL, Jaipur prior to scheduled date & time of bid submission and upload the scanned copy on the eproc bidding portal along with technical bid:
 - a. DD / Banker's Cheque only of prescribed cost of Tender document as mentioned in SECTION - C: Point 18 in favour of Jaipur Vidyut Vitran Nigam Limited payable at Jaipur;
 - b. DD / Banker's Cheque only of prescribed processing fee of RISL as mentioned in SECTION C: Point 19 in favour of MD RISL, payable at Jaipur; and
 - c. Bid security of prescribed value as mentioned in SECTION C: Point 12 by way of DD / Banker's Cheque in favour of Jaipur Vidyut Vitran Nigam Limited payable at Jaipur
 OR

Bank Guarantee ("BG") in favour of Superintending Engineer (Regulation) JVVNL, Jaipur from any scheduled commercial bank in India.

- i. A Certificate of Registration under DIC's in Rajasthan shall require to be submitted in proof of SSI unit of Rajasthan for getting benefit of exemption in submission of Bid Security.
- ii. Government undertakings PSUs are exempted from submission of Bid Security on producing certificate issued by competent authority. As per RTPP Act 2013, Rule 42 (2) in case of open competitive bidding, two-stage bidding, rate contract, electronic reverse auction, bid security shall be 2% or as specified by the State Government of the estimated value of subject matter of procurement put to bid. In case of small-scale industries of Rajasthan it shall be 0.5% of the quantity offered for supply and in case of sick industries, other

than small scale industries, whose cases are pending with Board of Industrial and Financial Reconstruction, it shall be 1% of the Estimated cost of the lot(s). Concessional bid security may be taken from registered bidders as specified by the State Government. Every bidder, if not exempted participating in the procurement process shall be required to furnish the bid security as specified in the tender document.

- iii. For claiming the above benefit an affidavit on Rajasthan Non-Judicial Stamp Paper of Rs. 100/- (as per SECTION - L: Format M.2) and SSI Certificate from Govt. of Rajasthan need to be submitted in the Envelope no. 1.
- iv. Bid security shall remain valid for a period of thirty (30) days beyond the original bid validity period, and beyond any extension subsequently requested.
 In case of submission of the Bid Security in form of Bank Guarantee (BG), bid security shall be submitted in standard format as per SECTION L: Format M.1.

Both hard copy submission and online submission of scanned copy of the above documents is essential otherwise the bid (Technical Bid & Financial Bid) in electronic form will not be opened of that bidder.

- 1.1.5. Cutting/ overwriting if any in the figures of the tendered documents is required to be clarified/ indicated in words, duly signed, failing which the tender may be rejected.
- 1.1.6. Bidders shall not quote any deviation of any kind in the bid.
- 1.1.7. The bidders shall provide complete information at the time of submission of bid. If the bidders are asked to furnish some more clarification/ confirmation/ document, they shall be required to furnish the same within specified time, failing which the case shall be finalized/ decided on the basis of available information/ documents. The responsibility of ignorance of their bid on account of delay in furnishing of desired information/ documents shall be of the bidder. However, if there are any shortcomings in the submission of the information which may not materially affects the qualification criterion, then JVVNL shall have the power to consider the facts on the merit of the case and decide the bid evaluation accordingly.
- 1.1.8. All the required information shall be furnished strictly in the prescribed Formats only. Any information indicated other than the prescribed Formats shall not be entertained. The bid shall be evaluated on the basis of information furnished in the prescribed Formats only.
- 1.1.9. Clarifications regarding this tender document for any type of typographical Errors or misunderstanding of document, the version/decision of JVVNL shall be final.
- 1.1.10. JVVNL reserves the right to cancel/ withdraw or alter the tender without assigning any reason and shall bear no liability whatsoever consequent upon such a decision.
- 1.1.11. **Correspondence for enquiries and clarifications:** All correspondence in respect of this RFP and submission of the bid shall be addressed to:

The Superintending Engineer (Regulation)

Jaipur Vidyut Vitran Nigam Limited (JVVNL) Room No. 149, Old Power House Premises, Banipark, Jaipur-302016 TELEFAX: 0141-2209533 Email- sermdf@jvvnl.org, <u>xendsm@jvvnl.org</u>

SECTION - D: SCOPE OF WORK

D.1. Scope of Work

- 1.1.1. Work title: Survey, Design, development, supply, testing, installation and commissioning for virtual feeder segregation of 11kV feeders using Industrial Internet of Things (IIOT) Based Device on existing Agriculture Distribution Transformers supplying power to agriculture consumers with O&M for 5 years and development & integration of online portal with billing system for complete Remote Monitoring and Control.
- 1.1.2. Overall scope of work of the Bidder under this RFP covers:
 - a. Detailed site survey in prescribed format with GPS coordinates of each site to assess the actual work quantum and recommend the transformer capacity required at site based on actual connected consumer load.
 - b. Design and development of Industrial Internet of Things (IIoT) based Device as per the stipulated Technical Specifications, for Agriculture Distribution Transformers (DTs) for supplying power to agriculture consumers.
 - c. Inspection of material by Discom officials at manufacturer's place prior to supply of material to actual site locations.
 - d. Supply of the approved materials (including meters from empaneled vendors of Discoms and testing of meters at NABL lab cost to be borne by the successful bidder) to the Discoms sub-stores/ warehouse/ other facilities.
 - e. Supply of all such accessories/ parts which are useful and necessary for its electrical, electronic and mechanical safe operation deemed to be within the scope of this order, whether specifically mentioned or not.
 - f. Retrofitting, testing and commissioning of the IIOT Based Device with the existing DT / spare DTs of various ratings available on a rotational basis at concerned AEN office / sub-stores.
 - g. In order to ensure minimum downtime of distribution transformer supplying power to agriculture consumers, the installation of the required materials and equipment's on the existing Agriculture Distribution Transformers by the selected bidder to be carried out on rotational basis i.e. the successful bidder need to retrofit & test the IIOT based device in all aspects on the available spare DTs of required capacities at concerned sub-stores / AEN office and subsequently replace the existing DTs at site with the retrofitted DTs. The DTs thus uninstalled from site then to be used for retrofitting & testing the required IIOT based device and subsequently to be installed at next set of site locations, and so on. Hence the successful bidder has to plan the availability of required resources, spares and execute the work accordingly.
 - h. The space and the provision to electricity supply as required by the successful bidder for the purpose of execution of the contract shall be provided by the respective Discom.
 - i. To transport the retrofitted DTs from concerned AEN office / sub store to actual site location, uninstalling of existing DT from site, installation of

retrofitted DT at site and transport the uninstalled DT back to the concerned AEN office / sub store. All associated costs for the same will be borne by the successful bidder only.

- j. To deposit the uninstalled DT from site to the concerned AEN office / substores.
- k. To coordinate with the concerned AEN office for taking the required shutdown of 11kV feeder for working at the actual site location(s).
- The whole unit may be retro fitted with the existing three phase distribution transformer of various ratings available in the DISCOM i.e., 10 kVA, 16 kVA, 25 kVA, 40 kVA, 63 kVA, 160 kVA or any other rating(s).
- m. The IIOT based device shall be an integral part of the Distribution Transformer which shall be fixed in a metal housing and whole unit with metal housing shall be fixed on LV bushing side via metallic adaptor so that there shall not be a direct access of LV bushing of DT (Distribution Transformer) to consumers. There shall be direct access to IIOT Based Device LT bushing only.
- n. The controller shall be turn ON/OFF each phase contactors based on operation logics.
- o. Installation of high gain antenna to be considered to ensure better GPRS signal strength when it is found that the GPRS signal strength is insufficient at the installed locations of IIOT Based Device.
- p. The equipment shall be tamper-proof and opening shall be by authorized person only. The instance of opening shall be recorded in the monitoring devices and shall also reported to Remote Monitoring Portal.
- q. Submission of type test reports to the Nodal officer / Ordering Authority of concerned Discom.
- r. Testing and commissioning of the IIOT Based Device & associated communication channel in presence of designated official(s) of Discom.
- s. Operations and Maintenance of retrofitted DT at site in-coordination with AE/ JE or any authorized representative of Discoms for a period of 5 years (O&M period from completion of at for all feeders of each GSS).
- t. Retrofitting on DTs due to new connections released during the O&M period of 5 years.
- u. Operation & maintenance of the implemented systems, replacement of defective / damaged systems as per the stipulated timeline along with online portal for 5 years (unless extended by both the parties on mutual agreement).
- v. Development of the online portal with Security Audit from MeitY empaneled cloud service providers / DoIT (Department of Information and Technology, Govt. of Rajasthan), for monitoring & control of all IIOT Based Devices and Integration with the Billing System of Discom.

Ministry of Electronics and Information Technology (MeitY), Govt of India has empaneled the Cloud Service offerings of major Cloud Service Providers (CSPs) for ease of Cloud procurement for the Government Departments. Presently, Cloud Services from 18 nos. prominent CSPs have been empaneled under GI Cloud (MeghRaj) by MeitY Basic Cloud Services.

- w. Online portal to include Dashboards, Analysis and Reporting structure. The application software to have drilldown dashboards for depicting the real time status of the contactors along with the details of the energy flow statistics with time stamping. Further, the successful bidder to provide for changes, updating, modifications, new dash boards and reports during the entire project implementation as per the requirement of Discom as and when required. The reports will be generated and published periodically on the web server and shall be readily available for download. Further all the reports generated will have option of exporting into xls, pdf etc. Some of the reports that needs to be generated at desired periodicity are:
 - i. Energy audit
 - ii. Periodic loading
 - iii. Voltage Profile
 - iv. Power Factor
 - v. Outage Report
 - vi. Daily 3 Phase availability duration
 - vii. Nos of contactor operations
 - viii. Seasonal Demand Curve
 - ix. Abnormal loading with duration and time stamping
 - x. Any other reports which can be generated from the available data.
 - xi. Viewing Historical data in Graphical format
 - xii. Present Geo location (latitude, longitude) of IIOT

The above list is tentative, the IIoT device and portal should comply with the technical specifications mentioned in SECTION - K:.

- x. Procurement and installation of agriculture consumer meter from empaneled vendors of Discom(s) at DT after getting the same tested from NABL lab of Discom. Cost of meters and any applicable testing fees is to be borne by the successful bidder.
- y. Integration of the online portal with the existing billing system of Discom (API for the same will be provided to the successful bidder by the Discom).
- z. To bear SIM cards cost including its recurring charges for initially first 5 years (unless extended by both the parties on mutual agreement).

1.1.3. Proof-of-Concept (POC)

Proof-of-concept is to establish successful communication between Energy Meters and IIOT Based DCU device, IIOT Based DCU device with successful bidder's HES / State Portal, and verifications of all control Operations Modes as per technical specifications. The Following functionalities shall be verified during POC:

- i. Push on Periodic Interval: In this mode deployed DCU shall transmit data of Energy meter and sensors on different configurable time intervals such as. DCU needs to process the acknowledgment published by the HES in such a way that the missing data index shall be prepared and need to publish as per the history backfilling requirement of HES.
- ii. Push on Event: DCU shall detect various configurable alarm or event conditions such as Contactor ON/ OFF Status, Grid ON/OFF status, Fault or Trip status, etc. and It shall transmit data immediately to the server.
- iii. On-Demand Read: In this mode, the User will send a command to DCU to get data as and when required and DCU will send the required data to the server immediately.
- iv. On-Demand Write: In case of Remote Operations, the user shall send On-Demand Write Command to the DCU and DCU will send back the acknowledgment with a change in parameters after the operation is completed
- v. Configuration read/write: Using this mode, the user will be able to read and change configurable parameters remotely such as, overload tripping limit, Contactor operation delay time, updating periodic interval, alarm limits, server parameters, etc.
- a. Component of PoC:

The bidder has required to come along with one no Smart DT comprising 1 No of Energy meters with IIoT Based DCU, Phase wise contactor, and sim card with internet bandwidth as under and any other required equipment. The POC shall be arranged such that single IIOT base DCU shall be able to communicate with energy meter via RS 232 Port using DLMS protocol respectively and with the web-based HES using GPRS communication.

b. Location of POC:

The Location for establishing POC shall be decided and conveyed to bidders who meet the eligibility and qualification criteria.

- c. Period of the POC:
 - i. The bidder shall have required to establish the POC within the 7 Days period as mentioned in the Tender Notice.
 - ii. The bidder also needs to acknowledge and confirm their presence on the date of PoC by written mail or letter.
 - iii. The bidder who will not remain present to establish the POC during the period of the POC will be declared as disqualified.
 - iv. However, depending upon the number of bidders, DISCOM may give a suitable date/time to the bidder for establishing the POC. The time of the POC is within office hours. The bidder has to establish the POC within the given schedule of seven days from the date /time given by DISCOM in such a case.
 - v. DISCOM decision in POC will be final. Any request regarding extension in the period of POC will not be entertained.

d. Successfulness of POC:

If the bidder fails to establish the POC as mentioned above before the DISCOM Committee, the bidder shall be disqualified and the price bid shall not be opened.

1.1.4. Feeder-wise execution of work is to be carried out by the successful bidder.

- 1.1.5. Bidder shall be responsible for all the works related to testing & commissioning of the project.
- 1.1.6. The successful bidder shall be responsible for getting the material inspected at manufacturer's place by Discom's official prior to supply of material to actual site locations.
- 1.1.7. In no case, JVVNL shall be responsible to pay for increase in cost of the materials & equipment's for any work related to Project after submission of bid.
- 1.1.8. It may be also noted that all the equipment's shall have its name plate including its manufacture's name, date of manufacture, warrantee/ guarantee period, technical specifications (such as voltage, current, power) etc.
- 1.1.9. It is the responsibility of successful bidder to maintain communication connectivity of more than 95% and data availability of more than 95% for the O&M period of 5 years.
- 1.1.10. Any other item not specifically mentioned in the specifications but which are required for the envisaged work of virtual feeder segregation, are deemed to be included in the scope of the specification as per relevant and latest IS, IECand specified by Discom unless specifically excluded.
- 1.1.11. Original/attested photocopies of the latest Type test certificate(s) not older than 5 (five) years from Govt. (NABL approved) / any recognized Government Laboratory, for all type tests wherever prescribed in the relevant latest edition of standards as mentioned in technical specification shall be furnished by the Successful Bidder to Discom before commencement of work (supply of SPV systems). However the bidder shall have to furnish declaration to this effect with the Bid that in the event of Award of Work "they shall submit type test reports for approval". However, the Discom reserves the right to get type tests conducted afresh by the Successful Bidder.
- 1.1.12. The Successful Bidder shall be required to furnish the routine/manufacturer(s) factory test certificate(s) for the tests carried out during manufacture in accordance with the relevant standard specifications.
- 1.1.13. Specification of all the items covered under this Tender Document is given separately. However, if any item is left out, standard specification of relevant and latest IS, IECand specified by Discom will be applicable for the same.
- 1.1.14. The scope of work shall also include submission of following by the Bidder:
 - a. Detailed planning of time bound smooth execution of Project;
 - Performance testing of the completion and successful commissioning of the Project;
 - c. O&M plan for the work to assure faultless operation;
 - d. Inventory plan to ensure availability of spare parts for minimal/ no downtime of the project during the term of contract agreement;

e. Coverage of risk liability of all personnel associated with implementation and realization of the Project;

D.2. Tentative Quantity

2.1.1. Given below is the summary of 2 nos. GSS in each Discom having primarily agriculture consumers for Virtual Feeder Segregation of its 11kV feeders:

Part	ticulars	JVVNL	AVVNL	JdVVNL	TOTAL
No. of substations		2	2	2	6
No. of 1	1kV feeders	13	8	8	29
Three Phase DT Capacity	No. of Three Phase Ag. connections	No. of T	hree Phase Di	stribution Tran	sformers
	1	121		24	145
10kVA	2	-		-	-
	Sub Total	121	-	24	145
	1	686	123	83	892
16kVA	2	-	-	-	-
	Sub Total	686	123	83	892
	1	300	144	145	589
25kVA	2	175	30	17	222
	Sub Total	475	174	162	811
	1	13	22	17	52
40kVA	2	10	58	2	70
	Sub Total	23	80	19	122
	1	2	2	1	5
63kVA	2	4	1	1	6
	Sub Total	6	3	2	11
	1	-			-
100kVA	2	1			1
	Sub Total	1	-	-	1
	1	-			-
160kVA	2	2			2
	Sub Total	2	-	-	2
Т	OTAL	1,314	380	290	1,984

- 2.1.2. Discom wise tendered quantity is placed as **SECTION L**:
- 2.1.3. The above mentioned tendered quantity is tentative and to be finalized after detailed survey by the successful bidder. However, the surveyed quantity (individual as well as total) shall <u>NOT</u> exceed the tendered quantity (individual as well as total) by more than 20%.
- 2.1.4. In addition to above, retrofitting of system on spare three phase DTs as per following applicable **PER SUBSTATION** shall be required on rotational basis for burnt DTs / any other issue with existing DT such that at any point of time, there are spare three phase DTs with retrofitted IIOT device is available at the AEN office / sub-store:

- (a) 1 no. for each connected three phase DT capacity **EXCEPT** for 10 kVA, 16 kVA and 25 kVA DTs
- (b) 3 nos. for 10 kVA, 16 kVA and 25 kVA three phase DTs
- 2.1.5. The tendered quantity may be increased up to 50% (as per RTPP act / rules) as a provision for new connections / load extension / augmentations on the same feeder(s) that may be done by Discoms after submission of detailed survey report by the successful bidder during the contract period (including O&M period of 5 years). This 50% capping shall include any variation observed between tendered and surveyed quantity i.e. 50% additional quantity calculation shall be done with reference to tendered quantity.

D.3. Project Milestones and Timeline

- 3.1.1. The Survey, Design, development, supply, testing, installation and commissioning for virtual feeder segregation of 11kV feeders using Industrial Internet of Things (IIOT) based Device on existing Agriculture Distribution Transformers supplying power to agriculture consumers and development & integration of online portal with billing system for complete Remote Monitoring and Control is to be completed within 6 (six) months from date of award of contract.
- 3.1.2. In addition to above, the bidder shall be responsible for operation and maintenance of the overall system and online portal for a period of 5 years from the successful completion of the project (unless extended by both the parties on mutual agreement).

Milestones	Timeline	
Construction Period (where T1 is date of award of Cont	ract)	
Site survey of all feeders thereafter Mobilization of advance along with submission of Bank Guarantee of 10%	T1 + 1 Month	
Supply, testing, installation and commissioning of the IIOT Based Device as per scope of work – Work to be executed feeder wise	T1 + 5 Months	
Successful integration/ implementation of Monitoring & Control System (for all feeders) including online portal for real time monitoring and control	T2 = T1 + 6 Months	
Operations & Maintenance Period (from completion of at for all feeders of each GSS)		
After successful completion of Operations and Maintenance period of 05 Years	T2 + 5 Years	

3.1.3. Successful bidder to adhere to the following project milestone and timeline:

SECTION - E: ELIGIBILITY & QUALIFICATION

E.1. Eligibility Requirement

1.1.1. The detail of eligibility requirements is provided in the table below. The bidders are required to furnish the required supporting documents along with the Technical Bid.

S. No.	Criteria	Documents Required
1.1.	Bidder can be sole/ single bidder OR, Joint Venture (JV) of up to 2 (two) members, with one of the members as a Lead Member.	In case of JV, Deed of Undertaking
1.2.	 The Bidder should have any of the following legal status: a) Body incorporated in India under the Companies Act, 2013 including any amendment thereto; OR b) Body incorporated in India under the Limited Liability Partnership (LLP) Act, 2008 including any amendment thereto; OR c) Firm registered under Partnership Act, 1932 in India; OR d) Sole Proprietor In case of JV, all the members must fulfill this requirement and submit the documents as per the RFP document. 	 In case of Company – Copy of Registration/ Incorporation Certificate In case of LLP – Copy of Deed of Partnership In case of Partnership – Copy of Deed of Partnership In case of Sole Proprietor – Duly notarized Undertaking from Sole proprietor
1.3.	The Bidder must have the required GST Registration. In case of JV, all the members must fulfill this requirement.	Copy of GST registration certificate with legible GSTIN.
1.4.	The Bidder must have valid PAN Number In case of JV, all the members must fulfill this requirement.	Copy of Pan Card
1.5.	The Bidder should have Electrical contractor license of class "A"/"B"/"C" for Electrical works in Rajasthan. In case of non-availability of the same at the time of bid submission, the Successful Bidder should submit a valid electrical contractor license of Class "A"/"B"/"C" issued by Government of Rajasthan within 1 month of award of contract. The bidder should submit an undertaking in this regard along with the bid on non-judicial stamp paper of Rs. 50. In case of JV, any one of the members must fulfill this requirement and submit the documents as per the RFP document.	Copy of Registration Certificate/ License issued by Government of Rajasthan

S. No.	Criteria	Documents Required
1.6.	The bidder should have valid Insurance (ESI) and Provident Fund (PF) for its employees and comply with labour laws as per the applicable government regulations	The bidder shall provide required documentary evidence towards employees' Insurance (ESI) and PF. Also, document towards compliance of labour laws. If not applicable, the bidder shall provide an undertaking on non-applicability with reason towards the same on non-judicial stamp paper of Rs. 50.
1.7.	The bidders should be qualified, not be insolvent, not be in receivership, not be bankrupt or being wound up, should not have affairs administered by a court or a judicial officer, should not have business activities suspended, should not be blacklisted, or debarred by any utility/ government agency, should not have a conflict of interest. The bidder should submit an undertaking in this regard along with the bid on non-judicial stamp paper of Rs. 50. In case of JV, all the members must fulfill this requirement.	The bidder shall provide an Undertaking as per the Format M.19. In case of JV, all the members must submit the undertaking as per the Format M.19.
1.8.	The bidder must submit a Power of Attorney (POA) authorizing a person to sign the documents on behalf of the Bidder, submit technical, commercial information and attend meetings on behalf of the Bidder. In case of JV, all the JV members must submit individual PoA with supporting BoD resolution along with combined PoA (signed by individually authorized person of each JV member), except in case of proprietor wherein only undertaking in this regard is to be submitted.	Sole Bidder to provide POA as per the applicable Law as provided in SECTION - L: Format M.3 In case of JV, Undertaking by JV as per the format M.5 and POA as per the format provided in Format M.4
1.9.	The bidder should have "No Conflict of Interest" as defined in Clause G.4 of this RFP document. Bidders have an obligation to disclose any situation of actual or potential conflict of interest. Failure to disclose said situations may lead to the disqualification of the Bidder or the termination of its Contract.	The bidder shall provide an undertaking as per the format provided in as per the Format M.13 In case of JV, all the members shall submit the undertaking as per the Format M.13

S. No.	Criteria	Documents Required
	The bidder should submit an undertaking in	
	this regard along with the bid on non-judicial	
	stamp paper of Rs. 50.	
	In case of JV, all the members must fulfill this	
	requirement.	

E.2. Qualification Requirement

The details of qualification requirements are provided in the table below. The bidders are required to furnish the required supporting documents along with the Technical Bid.

S. No.	Criteria	Documents Required			
1.1.	Technical Criteria				
1.1.1.	Bidder should have successfully Supplied, Erected, Tested and Commissioned IoT / IIoT based monitoring systems in Electrical Utility with its successful monitoring since last 3 years (i.e. FY 2018-19, 2019-20 & 2020-21) as on the bid submission date for atleast 25% of the total tentative tendered quantity under this RFP. In case of JV, the lead partner shall meet not less than 25% of the total experience requirement (25% of tentative tendered quantity). Collectively, JV shall meet the 100% requirement.	The details of projects executed during the mentioned period should be listed in as per the format provided in Format M.10 & M.11. Copy of work orders and a certificate issued by the government or private organization towards the satisfactory work completion to be furnished by the bidder. In absence of any supporting document(s) for any project in line with above, the project will not be considered for evaluating the requirement. AND Work experience Certificate having value of completed work in the name of Bidder duly certified by Practicing Chartered Accountant as			
		per the Format M.14 mentioning UDIN.			
1.2.					
1.2.1.	The Bidder should have positive net worth for each of the last three Financial Years (FY18-19 to FY20-21). In case of JV, all the members must fulfill this requirement.	Certificate fulfilling required financial criteria in the name of Bidder duly certified by Practicing Chartered Accountant as per the format provided in Format M.12, duly mentioning UDIN			
1.2.2.	Minimum Average Annual Turnover (MAAT) of last 3 Financial Years (i.e., FY 2018-19, 2019-20 & 2020-21) shall not be less than 50% of total estimated project cost.	AND Firm's Annual Audited Balance sheet and Profit & Loss statement for last three years (i.e., FY 2018-19, 2019-20 & 2020-21)			

S. No.	Criteria	Documents Required
	The Lead partner shall meet not less than	
	40% AND the other partner shall meet	
	not less than 25% of MAAT requirement.	
	Collectively, JV shall meet the 100%	
	requirement.	

2.1.1. Key Information regarding Documentary proofs

- a) The bidder must fill up above information clearly in enclosed sheet and attach all required documents in support as at a glance in Technical bid.
- b) If supporting documents are not attached for each eligible criterion above, the bid may be rejected without further reference.

E.3. Joint Venture Participation

- 3.1.1. Unless otherwise mentioned in Key Bid Data in SECTION C:, bids submitted by a joint venture having not more than two partners with one partner as lead partner, if allowed as per stipulated Qualification Requirements, shall comply with the following requirements:
 - i. The bid shall include all the information required as described above for each joint venture partner.
 - ii. The bid shall be signed so as to be legally binding on both the partners.
 - iii. One of the partners responsible for performing a key component of the contract shall be designated as leader; this authorization shall be evidenced by submitting with the bid a power of attorney signed by legally authorized signatories as per Format M.4.
 - iv. The leader shall be authorized to incur liabilities and receive instructions for and on behalf of any and both the partners of the joint venture, and the entire execution of the contract, including payment, shall be done exclusively with the leader.
 - v. All partners of the joint venture shall be liable jointly and severally for the execution of the contract in accordance with the contract terms.
 - vi. A copy of the agreement entered into by the joint venture partners shall be submitted with the bid as per Format M.5, including interalia delineation of responsibilities and obligations of each partners appended thereto, notwithstanding the joint and several liability.
 - vii. The joint venture agreement should precisely indicate the responsibility of all members of JV in respect of planning, design, development, engineering, manufacturing, assembling, testing, supply, delivery, implementation, commissioning and operation & maintenance.
 - viii. All members of JV should have active participation in execution of the contract. This should not be varied/ modified subsequently without prior approval of JVVNL.

- ix. In order for a joint venture to qualify, both the partners must meet the minimum criteria listed in the Qualification Requirement for the Bidder for an individual Bidder for the component of the contract they are designated to perform. Failure to comply with this requirement will result in rejection of the joint venture bid.
- x. A firm can be a partner in only one joint venture; bids submitted by joint ventures including the same firm as partner will be rejected.

SECTION - F: SUBMISSION OF BIDS

F.1. Sale of RFP Document

1.1.1. The sale/ download of RFP document shall commence as per the date specified in SECTION - C: Point 13. The prospective Bidders are permitted to download the RFP Document from Bidding Portal or, <u>www.energy.rajasthan.gov.in/jvvnl</u> or, www.stppp.rajasthan.gov.in but must pay the cost of Tender Document and E-procurement processing fees while submitting the Bid to JVVNL in the manner prescribed in the RFP Document.

F.2. Local Conditions

2.1.1. It will be imperative on each Bidder to fully acquaint himself of all local conditions and factors which may have any effect/ bearing on the execution of the works covered under this RFP Document. JVVNL, as applicable, shall not entertain any request for clarifications from the Bidder, regarding such local conditions, post award of contract. It must be understood and agreed that such factors have properly been investigated and considered while submitting the Bid. No claim for financial adjustment to the contract awarded under this RFP Document will be entertained by the JVVNL as applicable. Neither any change in the time schedule of the contract nor any financial adjustments arising thereof shall be permitted by the JVVNL as applicable, which are based on the lack of such clear information or its effect on the cost of the works to the bidder. The bidder can take few visits of feeders location and /or, substations to get acquainted with local conditions, if required.

F.3. Clarification of Tender Document

- 3.1.1. A prospective bidder requiring any clarification on the Tender documents may notify JVVNL through email such that it shall reach before the specified Date and Time of Pre-Bid meeting as per the information provided in SECTION C:.
- 3.1.2. JVVNL will only accept Bidder queries sent through email, as per the specified Format, on or before the date and time specified in SECTION C: of Tender Document.
- 3.1.3. JVVNL would prepare and upload the corrigendum and /or, final Tender Document based on modifications (if any).

F.4. Amendment of Bidding Document

- 4.1.1. At any time prior to the deadline for submission of the Bids, JVVNL may amend the RFP document by issuing Corrigendum/ Addenda.
- 4.1.2. Any Corrigendum/ Addendum issued shall be a part of the RFP document and shall be communicated on the Bidding Portal.
- 4.1.3. To give prospective Bidders reasonable time in which to take a Corrigendum/ Addendum into account in preparing their Bids, JVVNL may, at its discretion, extend the deadline for the submission of the Bids.
- 4.1.4. Any change in date of submission and opening of bids would be published on Bidding Portal.

F.5. Submission of Bid Security

- 5.1.1. Bidder shall have to deposit Bid Security of amount as detailed in SECTION C: Point 12 in the form of Demand Draft / Banker's cheque / Bank Guarantee (BG) of scheduled commercial bank (valid for 30 days beyond the Bid Validity i.e. 6 months + (plus) additional 30 days grace period), without which Bid will not be considered and shall be summarily rejected.
- 5.1.2. The Bank Guarantee for bid security shall be executed on Rajasthan Non-Judicial Stamp (NJS) Paper worth 0.25% of BG value (Maximum Stamp Duty of Rs. 25,000). If the BG is furnished from bank of other state with different Stamp Worth, then the difference value will be submitted on Rajasthan NJS Paper.
- 5.1.3. Government undertakings PSUs are exempted for Bid Security deposition on producing certificate issued by competent authority in Hard Copy in envelope-1 and also with online bid.
- 5.1.4. The Bid Security will be refunded to all the Bidders within 30 days after execution / signing of the contract with successful bidder and Performance Bank Guarantee (PBG) is obtained from successful bidder.
- 5.1.5. Forfeiture of Bid Security: The Bid Security taken from the Bidder shall be forfeited in the following cases:
 - a) If the Bidder modifies/ withdraws its Bid except as per the provisions specified in this Tender Document;
 - b) If the Bidder withdraws its Bid before the expiry of the Bid validity period;
 - c) If the successful bidder fails to provide the Performance Security to Discom and execute the Contract within the stipulated time or any extension thereof provided by Discom;
 - d) If any information or document furnished by the Bidder turns out to be misleading or untrue in any material respect.
 - e) If the successful Bidder does not accept the Letter of Intent unconditionally within Three (3) days of issue of Letter of Intent or the period as extended by JVVNL.
 - f) If the Bidder breaches any provision of code of integrity prescribed for the Bidders specified by JVVNL.
 - g) In the event of a bidder not responding to further negotiations as required for selection of Successful Bidder, JVVNL reserves the right to forfeit the Bid Security Deposit amount furnished by such Bidders.
- 5.1.6. Bid Security of a bidder lying with the JVVNL in respect of other bids awaiting decision will not be adjusted towards bid security for the fresh bids. The bid security money originally deposited may, however, would be taken into consideration in case bids are re-invited.
- 5.1.7. No interest shall be paid by JVVNL on the Bid Security.

F.6. Submission of Bids

- 6.1.1. Single stage Two-part system bidding modality shall be followed under this RFP.
- 6.1.2. E-procurement system shall be followed for the bidding as per the RTPP Act 2012 and RTPP Rules 2013.
- 6.1.3. The Bidder would ensure that all the required documents, as mentioned in this RFP Document, are submitted along with the Bid and in the prescribed format and manner only. Non-submission of the required documents or submission of the documents in different format/ contents & different manner may lead to the rejections of the Bid submitted by the Bidder.
- 6.1.4. On submission of Bid by bidder it will be deemed that Bidders have carefully read and understood the above terms & conditions of the tender document and agree to abide by them.

F.7. Language of Bids

7.1.1. Bidders are required to furnish all information and documents as called for in this RFP document in **English Language**. Any printed literature furnished by the bidder may be in another language, provided that this literature is accompanied by an English translation, in such case, for the purpose of interpretation of the document, the English version will govern.

F.8. Submission of Technical Bid (Part 1)

- 8.1.1. The technical bid comprises of:
 - i. Submission of DD / Banker's Cheque only of prescribed value towards the cost of tender document and RISL e-procurement processing fees, in original Physical/ Hard Form at the office of A.O. (PPM), JVVNL, Jaipur prior to scheduled date & time of bid submission.
 - ii. Submission of DD / Banker's Cheque / Bank Guarantee of prescribed value towards the Bid Security / EMD value, in original Physical/ Hard Form at the office of A.O. (PPM), JVVNL, Jaipur prior to scheduled date & time of bid submission.
 - iii. Online submission of technical bid/ proposal covering following prior to the scheduled date and time of bid submission:
 - a. Scanned copy of proof of deposit/ receipt of cost of tender document, bid security / EMD amount and RISL e-procurement fees at eproc portal.
 - b. Documents/ certificates pertaining to eligibility, qualification and other requirements in the prescribed format enclosed in this RFP (<u>except Price</u> <u>Bid</u>).
 - iv. Submission of certificates/ documents required to be submitted on non-judicial stamp paper e.g., undertaking towards non-blacklisting or non-debarment, Joint venture agreement, power of attorney/ sole proprietor undertaking, etc. at the office of Superintending Engineer (Regulation), JVVNL, Jaipur prior to scheduled date & time of bid submission.

- 8.1.2. The Joint venture Bids shall be acceptable as per following conditions :
 - a. The JV member has procured the tender document in its own name.
 - b. The lead member shall submit Joint Venture Undertaking along with the Bid.
 - c. All requirements as per SECTION E: of the tender document can be furnished by both Joint Venture members jointly or individually as required in relevant clauses of SECTION - E:.
 - d. The lead member shall undertake the responsibility for all obligations and liabilities relating to the project in accordance with the terms of this tender.
 - e. The work would be awarded to the lead member and Discom would acknowledge other Joint Venture member in the work award letter and other communications.
 - f. All payments from Discom will be made in informed joint bank account of Joint Venture firms only, the details of such bank account shall be provided by the Bidder.
 - g. Only one agreement with only one party will be accepted under Joint Venture agreement.
 - h. A firm/entity can be a partner in only one Joint Venture; bids submitted by joint ventures including the same firm/ entity as partner shall be rejected.

F.9. Submission of Price Bid:

- 9.1.1. Bidders shall quote their lowest cost in INR excluding applicable GST but inclusive of all other taxes for each DT capacity. However applicable GST is to be mentioned separately under the price bid.
- 9.1.2. The cost has to be quoted up to two places of decimal only. If it is quoted with more than two digits after decimal, it shall be ignored after two decimal places. (For e.g. if the quoted price excluding GST is INR 10,000.345, then it shall be considered as INR 10,000.34 only).
- 9.1.3. Price bid in form of price schedule shall be uploaded by the bidder on Bidding Portal before scheduled due date and time for submission of bids. **Indicative price bid format** enclosed as Format M.22.
- 9.1.4. Due intimation shall be given to technically and commercially cleared bidders about date and time of opening of prices bids on bidding portal.
- 9.1.5. If price offer is submitted in technical bid, such bids will be rejected in technical bid evaluation stage and will not be considered for further process to conclude the bid.
- 9.1.6. Unless otherwise indicated in the Tender document, prices quoted by Bidder shall correspond to 100% cost & risk of the scope of work to be delivered.

F.10. Cost of Bidding:

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

F.11. Alternative Bids:

11.1.1. Alternative bids shall NOT be considered at all.

F.12. Period of Validity of Bids:

- 12.1.1. Bids shall remain valid for 90 days from the date of opening of Technical Bid as prescribed by JVVNL. A Bid valid for a shorter period shall be rejected and treated as non-responsive.
- 12.1.2. In exceptional circumstances, JVVNL may solicit the Bidder's consent to an extension of the period of validity. The request and the responses thereto shall be made in writing.

F.13. Format and Signing of Bid

- 13.1.1. The bid forms/ templates/ annexure etc., wherever applicable, shall be typed or written in indelible ink and shall be signed (all the pages) by a person duly authorized by Bidder to sign, in token of acceptance of all the terms and conditions of the RFP Document. This authorization shall consist of a written confirmation in the form of Power of Attorney as specified in the RFP document and shall be attached to the bid.
- 13.1.2. Any amendments such as interlineations, erasures, or overwriting shall be valid only if they are signed or initialled by the authorized person signing the bid.
- 13.1.3. The bid documents shall be properly checked before uploading for submission of Bids.
- 13.1.4. The bid, duly signed (digitally) by Auth. Signatory, shall be uploaded on the Bidding portal in respective file/ format.
- 13.1.5. Bidders must submit their bids online at Bidding Portal. Bids received by another other means except as desired in this RFP Document shall not be accepted.
- 13.1.6. If bids are not submitted as per the details mentioned in this RFP document and Bidding Portal, JVVNL shall reject the bid.
- 13.1.7. Bidders are required to carefully go through the instructions included in the RFP Document and furnish complete information, necessary documents and schedules.
- 13.1.8. The Bidder shall sign the bid on each page and also at the specified location. Each and every paper enclosed must be given a page no. like 1,2,3,.....etc. & a bid summary must be enclosed along with covering letter on the Letter Head of the firm in the following format:

Sr. No.	Particulars/brief of information/ schedule/ Annexure	Page No:
1.		
2.		
3.		
	Total Page	

Signature of Authorized Signatory, Seal of Entity, Date and Place

F.14. Withdrawal, Substitution, and Modification of Bids

- 14.1.1. A Bidder may withdraw its bid or re-submit its bid (technical and/ or financial cover) as per the instructions/ procedure mentioned at Bidding Portal under the section "Bidder's Manual Kit", but not after bid submission end date and time.
- 14.1.2. Bids withdrawn shall not be opened and processed further by JVVNL.

SECTION - G: BID OPENING & EVALUATION

G.1. Bid Opening

- 1.1.1. JVVNL will first perform the technical bid opening, which is a critical event in the bidding process. This shall be done online on the stipulated time.
- 1.1.2. After opening of Bids and till final selection of successful Bidder, no correspondence of any type will be entertained, unless called for by JVVNL. Any type of uncalled for clarifications on prices and or rebates shall not be accepted.

G.2. Confidentiality

- 2.1.1. 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.
- 2.1.2. Any attempt by a bidder to influence JVVNL or other officials in the examination, evaluation, comparison, and post qualification of the bids or Contract award decisions may result in the rejection of his bid.

G.3. Clarification of Bids

- 3.1.1. To assist in the examination, evaluation, comparison and qualification of the bids, the JVVNL may, at its discretion, ask any bidder for a clarification regarding its bid. The JVVNL's request for clarification and the response of the bidder shall be in writing.
- 3.1.2. Any clarification submitted by a bidder with regard to its bid that is not in response to a request by JVVNL shall not be considered.
- 3.1.3. 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 committee in the evaluation of the financial bids.
- 3.1.4. No substantive change to qualification information or to a submission, including changes aimed at making an unqualified bidder, qualified or an unresponsive submission, responsive shall be sought, offered or permitted.
- 3.1.5. All communications generated under this rule shall be included in the record of the procurement proceedings.

G.4. Conflict of Interest

4.1.1. JVVNL considers a conflict of interest to be a situation in which a party has interests that could improperly influence that party's performance of official duties or responsibilities, contractual obligations, or compliance with applicable laws and regulations. In pursuance of JVVNL's procurement ethics, the bidders, suppliers, and contractors under contracts, observe the highest standard of ethics, JVVNL will take appropriate actions against the Bidder, if it determines that a conflict of interest has flawed the integrity of any procurement process. Consequently, all Bidders found to have a conflict of interest shall be disqualified.

- 4.1.2. Conflict of interest will be determined in accordance with clause 81 of the Rajasthan Transparency in Public Procurement Rules (RTPP) 2013.
- 4.1.3. Further, it may be considered to be in a conflict of interest with one or more parties in the bidding process if
 - a) they have controlling shareholders in common; or
 - b) it receives or have received any direct or indirect subsidy from any of them; or
 - c) they have the same legal representative for purposes of the Bid; or
 - d) they have a relationship with each other, directly or through common third parties, that puts them in a position to have access to information about or influence on the Bid of another Bidder or influence the decisions of JVVNL regarding this bidding process.

G.5. Technical Bid opening and evaluation:

- 5.1.1. The first part (Technical Bid submitted online) of only those bidders will be opened by JVVNL whose required documents as mentioned at clause SECTION - F:8.1.1.i of this RFP are received at the office of AO (PPM), JVVNL, Jaipur [for cost of tender document, e-processing fees and Bid Security / EMD amount] on or before the due date and time of bid submission. Documents received after the bid submission deadline, shall be rejected and returned unopened, if super-scribed properly with address, to the bidder. Online submitted technical bid of such bidders shall not be opened.
- 5.1.2. If the above highlighted documents are received in order and as per the schedule, JVVNL will examine all the documents submitted by the Bidders and ascertain meeting of eligibility conditions prescribed in the RFP. During the examination of the bids, JVVNL may seek clarifications/ additional documents to the documents submitted etc. from the Bidders, if required, to satisfy themselves for meeting the eligibility conditions by the Bidders. Bidders shall be required to respond to any clarifications/ additional documents sought by JVVNL within the stipulated timeline. All correspondence in this regard shall be made through email/ bidding portal. It shall be the responsibility of the Bidder to ensure that the email id of the authorized signatory of the Bidder is functional. It shall be the sole responsibility of the Bidders and furnish additional documents as requested. JVVNL shall not be responsible for rejection of any bid on account of the above.
- 5.1.3. The response to RFP submitted by the Bidder shall be scrutinized to establish Technical eligibility as per RFP.
- 5.1.4. As highlighted under SECTION D: Clause 1.1.3, all bidders who meet the technical criteria will be requested by JVVNL to establish the Proof-of-concept (POC) as per the required specifications of Discoms within 7 Days period from date of request by JVVNL. Price bids of only those bidders, who meet the technical criteria and successfully establish the POC, shall be opened.
- 5.1.5. However, it may be noted that if only one or two Bidder(s) is /are eligible for the next stage, opening of the financial bid of the Bidder(s) will be at the discretion of JVVNL. Thereafter, JVVNL will take appropriate action as deemed fit.

- 5.1.6. Bids considered non-responsive are liable for disqualification/ rejection for the following reasons:
 - a) Bid is not received by the due date & time and Bids is not accompanied with the required documents & schedules.
 - b) Bid not submitted in accordance with RFP document.
 - c) Bid do not meet the minimum eligibility criteria as mentioned in the bidding document.
 - d) Bids not accompanied by Bid Security or EMD /Cost of Tender Document / RISL Eprocurement processing Fees.
 - e) Conditional Bid shall be rejected.
 - f) Proposal is not valid for at least 90 days from the date of opening of online Technical Bid.
 - g) During validity of the Bid or its extended period, if any, Bidder increases his quoted prices.
 - h) Desired certificates in the required format in the RFP not attached by the bidder.
 - i) Failure to establish the Proof-of-Concept (POC) as mentioned in SECTION D: Clause 1.1.3.
 - j) Prices not quoted in prescribed Performa /schedule.
 - k) Bidder has made misleading or false representations in the forms, statements and attachments submitted in proof of the eligibility requirements.
 - Bidder is found to have a record of poor performance such as abandoning work, not properly completing the contract, inordinately delaying completion, being involved in major litigation or financial failures, etc.
 - m) Bidder failed to provide clarifications related thereto, when sought.
 - n) Bidder has submitted more than one bid. This will cause disqualification of all Bids submitted by such Bidders including forfeiture of the Bid Security.
 - Bidder 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.
 - p) Bid is not meeting any other pre-requisite as spelt out elsewhere in this document.

G.6. Financial Bid Opening:

6.1.1. JVVNL shall refer the evaluation report to the Competent Authority of JVVNL, which reserves the right to reject any Bid which is non-responsive and no request for alteration, modification, substitution or withdrawal shall be entertained by JVVNL in respect of such Bids.
6.1.3. The Bidders which could not qualify in technical evaluation will be informed about this fact. Their financial bid will remain unopened for such Bidders.

G.7. Financial Evaluation:

- 7.1.1. To evaluate a bid, JVVNL shall consider the following:
 - a) The bid price as quoted in accordance with RFP document.
 - b) Price adjustment for correction of arithmetic errors in accordance with RFP document.
- 7.1.2. JVVNL's evaluation of a bid will exclude and not take into account any allowance for price adjustment during the period of performance of the Contract, if provided in the Bid.
- 7.1.3. The evaluation shall include all costs and all taxes and duties applicable to the bidder as per law of the Central/ State Government/ Local Authorities, including applicable GST.
- 7.1.4. If there is a discrepancy between words and figures, the amount in words shall prevail.
- 7.1.5. The Bidder will have to submit a single bid quoting without any escalation.
- 7.1.6. Financial offers will be arranged in the ascending order for each lot, of their quoted price in the respective price bid i.e. L-1, L-2, L-3, L-4, L-5,Ln.
- 7.1.7. If same price is quoted by two or more Bidders, then all the Bidders with same cost shall be considered of equal rank/ standing in the order.
- 7.1.8. If only single bid is received and no competition is found, then decision of the Competent Committee of JVVNL for consideration of the bid will be final.

G.8. Negotiations

- 8.1.1. Except in case of procurement by method of single source procurement or procurement by competitive negotiations, to the extent possible, no negotiations shall be conducted after the pre-bid stage. All clarifications needed to be sought shall be sought in the pre-bid stage itself.
- 8.1.2. The Competent Committee appointed by JVVNL shall have full powers to undertake negotiations. Detailed reasons and results of negotiations shall be recorded in the proceedings.
- 8.1.3. The lowest or most advantageous bidder shall be informed in writing either through registered letter and/or, email. In case of urgency, the Competent Committee, after recording reasons, may reduce the time, provided the lowest or most advantageous bidder has received the intimation and consented to regarding holding of negotiations.
- 8.1.4. Negotiations shall not make the original offer made by the bidder inoperative. The Competent Committee shall have option to consider the original offer in case the

bidder decides to increase tariff originally quoted or imposes any new terms or conditions.

- 8.1.5. In case of non-satisfactory achievement of tariff from lowest or most advantageous bidder, the Competent Committee may choose to make a written counter offer to the lowest or most advantageous bidder and if this is not accepted by him, the committee may decide to reject and re-invite bids OR, to make the same counter-offer first to the second lowest or most advantageous bidder, then to the third lowest or most advantageous bidder and so on in the order of their initial standing and work / supply order be awarded to the bidder who accepts the counter-offer. This procedure can be used in exceptional cases only.
- 8.1.6. In case the offer even after the negotiations is considered very high, fresh bids shall be invited.

G.9. Right to Reject by JVVNL

9.1.1. JVVNL reserves the right to accept or reject any bid, and to annul the bidding process and reject all bids at any time prior to award of contract, without thereby incurring any liability to the affected Bidder or bidders or any obligation to inform the affected Bidder or bidders of the grounds for JVVNL's action.

SECTION - H: AWARD OF CONTRACT

H.1. Award of contract

- 1.1.1. Based on the results of the financial evaluation, JVVNL shall identify the L1 Bidder i.e. bidder whose bid has been determined to be substantially responsive and to be the lowest evaluated bid, further provided that the Bidder is determined to be qualified, as per the Qualification Requirement specified in RFP document to perform the contract satisfactorily.
- 1.1.2. The Bidder that has quoted the lowest price shall be selected as the Successful Bidder for the envisaged work in all three Discoms.
- 1.1.3. If, there is a tie on L1 price in the financial bid among two or more bidders, then such bidders shall be called for negotiations as per Clause G.8 of this RFP. Bidder with Lowest rate (L1) price discovered by the competent committee during negotiations shall be selected as the Successful Bidder.
- 1.1.4. JVVNL to process the Bid process till issuance of LoI only i.e. Letter of Intent (LoI) will be issued to the successful bidder by JVVNL.
- 1.1.5. After acceptance of the LoI by the successful bidder, work order for quantity under each Discom will be issued by respective Discoms.
- 1.1.6. Performance Bank Guarantee & all further contractual formalities to be submitted by the successful bidder separately to each DISCOM upto the awarded quantity & value of work.
- 1.1.7. During Construction phase of 6 months from work order:
 - a. Each Discom to monitor the work execution independently
 - b. Respective Discoms' to submit work progress status-cum-report to the Nodal Officer i.e. SE (Regulation) JVVNL, Jaipur on monthly basis
- 1.1.8. During O&M phase of 5 years:
 - a. Each Discom to monitor the work execution independently.

H.2. Performance Bank Guarantee / Additional Performance Security

- 2.1.1. The successful bidder shall be required to furnish Performance Bank Guarantee (PBG) of 3% of the DISCOM wise awarded value till Project Completion Period including O&M period of 5 years within 1 month from date of issue of Work order.
- 2.1.2. The Discom wise Performance Bank Guarantee need to be submitted to the office of Nodal officer of respective Discoms.
- 2.1.3. The Performance bank guarantee shall be returned/ encashed after successful completion of the project or deemed fit as per RFP other terms & conditions.
- 2.1.4. The Performance Bank Guarantee shall be in the Form of unconditional Bank Guarantee as per the Format M.20 in favour of "Superintending Engineer (Regulation), JVVNL, Jaipur" and to be submitted at the office of Superintending Engineer (Regulation), JVVNL, Jaipur.

- 2.1.5. It shall be responsibility of selected bidder to get the PBG extended, if required, such that it is valid till 2 months after the successful completion of the project.
- 2.1.6. In addition to Performance Security as specified above, an Additional Performance Security shall also be taken from the successful bidder in case of Unbalance Bid Amount. The Additional Performance Security shall be equal to 50% of Unbalance Bid Amount. The same shall be deposited in lump sum by the successful bidder before execution of Agreement. It shall be deposited through Demand Draft/ Banker's cheque/ Bank Guarantee (BG). Further, the Additional Performance Security shall be refunded to the bidder/ Successful Bidder after satisfactory completion of the entire work.
- 2.1.7. Non submission of PBG within the above mentioned timelines shall be treated as follows:
 - (a) <u>Delay upto 1 month from due date of submission of PBG</u>: Delay charges @1% of the PBG amount per month levied on per day basis shall be paid by the selected bidder to JVVNL in addition to the PBG amount.

In case of delay in making full payment of above delay charges, the amount paid, if any, until the above deadline, along with interest, shall be first reduced from the total amount due towards the delay charges and interest amount (i.e. rate of interest as stated above). Further, balance amount to be paid shall attract Interest rate @12% per year.

- (b) <u>Delay beyond 1 month from the due date of submission of PBG</u>: The contract shall stand terminated.
- 2.1.8. For the purpose of calculation of the above delay charges, "month" shall be considered as a period of 30 days. The selected bidder shall furnish the PBG from any scheduled commercial bank.
- 2.1.9. In case of award of the contract to a Joint Venture, the Bank Guarantees for performance bank guarantee shall be submitted in the name of all the partner(s) of the Joint Venture "OR" in the name of Lead/ other Partner in the Joint Venture submitting the bid.
- 2.1.10. The BG for performance bank guarantee shall be executed on Non-Judicial Stamp Paper of Rajasthan worth 0.25% of BG value or Rs. 25,000/- whichever is lower.

H.3. Forfeiture of Performance bank guarantee:

- 3.1.1. Apart from cases mentioned in the RFP regarding forfeiture of Performance bank guarantee, the Performance bank guarantee amount in full or part may also be forfeited in the following cases:
 - a) Failure in executing of the contract agreement.
 - b) When the terms and conditions of contract is breached / infringed by the Bidder
 - c) When contract is being terminated due to non-performance by the Bidder

Notice of reasonable time will be given in case of forfeiture of Performance bank guarantee deposit. The decision of the JVVNL, as applicable, in this regard shall be final.

- 3.1.2. No interest will be paid by JVVNL on the amount of Performance bank guarantee or, Additional Performance Security (if applicable).
- 3.1.3. The Additional Performance Security (if applicable) shall be forfeited by the Discom when work is not completed within the stipulated period by the bidder/ Successful Bidder.

H.4. Signing of Contract Agreement:

- 4.1.1. Contract Agreement shall be signed, (after unconditional acceptance of Work Order by Successful Bidder and submission of PBG) within 7 days from date of acceptance of Performance Bank Guarantee and Additional Performance Security (if applicable) by the successful bidder in line with draft format enclosed as Format M.20. The contract shall be valid for a period covering 6 months installation and commissioning period and 5 years O&M period. Any extension of the contract period shall be through mutual agreement between the Bidder and JVVNL.
- 4.1.2. Contract agreement shall be executed Discom wise by the successful bidder.
- 4.1.3. If the successful bidder, whose bid has been accepted, fails to furnish the required PBG or fails to sign a contract agreement within specified period, JVVNL shall take action against such bidder as per the provisions of the RTPP Act and rules. JVVNL may, in such case, may cancel the tender process or if it deems fit, offer the L1 tariff to the next lowest or most advantageous bidder for acceptance, in accordance with the criteria and procedures set out in this RFP.
- 4.1.4. All expenditure towards execution of Bank Guarantees such as stamp duty etc. shall be borne by the successful Bidder.

H.5. Reservation of Rights

- 5.1.1. To take care of unexpected circumstances, JVVNL shall reserve the rights for the following:
 - a) Extend the closing date for submission of the bids.
 - b) Amend the bidding requirements at any time prior to the closing date, with the amendment being notified to prospective bidders.
 - c) Seek information from or negotiate with one or more of the bidders on any issue at any time and to continue to negotiate with one or more of the bidders.
 - d) Discontinue negotiations at any time with any bidder.
 - e) Allow a bidder to change its Technical proposal if the same opportunity is given to all bidders.
 - f) To accept any bid not necessarily the lowest, reject any bid without assigning any reasons and accept bid for all or anyone or more of the articles for which bid has been invited or distribute items of stores to more than one bidder.
 - g) Terminate or abandon the Tender procedure or the entire Project whether before or after the receipt of Bids.
 - h) Seek the advice of external consultants to assist JVVNL in the evaluation or review of Bids.

- i) Make enquiries of any person, company or organization to ascertain information regarding the bidder and its Bid.
- j) Reproduce for the purposes of the procedure the whole or any portion of the Bid despite any copyright or other intellectual property right that may subsist in the Bid.

SECTION - I: PAYMENT TERMS & PENALTY PROVISIONS

I.1. Payment Conditions

- 1.1.1. The successful bidder shall submit their bills along with required documents/papers to respective Engineer-in-charge of Discom and obtain receipt of the same from Engineer In-charge of Discom.
- 1.1.2. A copy of invoice along with required documents/papers and copy receipt from Engineer-n-charge shall be submitted to the Nodal Officer by the successful bidder.
- 1.1.3. Senior Accounts Officer (CPC) of concerned Discom shall be the paying authority for the work envisaged under this RFP.
- 1.1.4. During the construction period, the successful bidder shall claim **feeder-wise** payment by submitting complete list of Distribution Transformers connected on the same feeder along with GPS location with address, date of installation, makes and serial numbers of systems along with the photographs of installed system duly verified by Engineer In-charge.
- 1.1.5. Following project milestones / schedule along with payment release shall be followed:

Particulars	Timeline	Payment Schedule	
Construction Period (where T1 is date of	Construction Period (where T1 is date of award of Contract)		
Site survey of all feeders thereafter Mobilization of advance along with submission of Bank T1 + 1 Month Guarantee of 10%		10%	
Supply, testing, installation and commissioning of the IIOT Based Device as per scope of work – Work to be executed feeder wise	T1 + 5 Months	80% (Including Mobilization Advance)	
Successful integration/ implementation of Monitoring & Control System (for all feeders) including online portal for real time monitoring and control	T2 = T1 + 6 Months	10%	
Operations & Maintenance Period (from completion of at for all feeders of each GSS)			
After successful completion of Operations and Maintenance period of 5 Years	T2 + 5 Years	10%	

- 1.1.6. The payment of invoiced amount shall be released as per following terms:
 - a) Mobilization advance equivalent to 10% of the total order value (Discom wise) shall be released after receipt of claim from the successful bidder with following documents to the Ordering Authority of concerned Discom:
 - i. Unconditional acceptance of the Letter of Award and signing of contract agreement by the successful bidder.
 - ii. Successful bidder's detailed invoice.

- iii. Submission and acceptance of unconditional & irrevocable part Bank Guarantees with value equivalent to the mobilization advance amount in favour of Ordering Authority of concerned Discom as per proforma Format M.21. The said Bank Guarantees shall be initially valid upto end of ninety (90) days after 6 months (Supply, Installation & Commissioning period) from award of contract and shall be extended from time to time till ninety (90) days beyond revised schedule, as may be required under the Contract. Also, the same shall be adjusted proportionately in the commissioned feeder wise invoiced amount.
- b) 1st installment of 80% of the final contract value (Discom wise) (inclusive of taxes) only for the feeder(s) completed, after receipt of claim (Supply, Installation and commissioning) from the successful bidder with following documents duly verified by concerned Engineer-in-charge of Discom, will be made by Designated Payment Officer of Discom within 45 days from the date of submission of invoice along with relevant documents completed in all aspects.
 - i. Invoice issued by the successful bidder.
 - ii. Date of commissioning along with DT GPS location and address, date of installation, makes and serial numbers of systems, etc.
 - iii. Two Photographs of the installed system.

The Successful Bidder shall not display the photograph of the work and shall not take advantage through publicity of the work without written permission of Discom.

- iv. Copy of installation certificate duly signed (with seal) by the concerned Engineer-In-charge of Discom.
- v. Signed Contract Agreement with concerned Discom.

Note: Two sets of above listed documents must be prepared & one copy be submitted to Payment Officer of Discom & second copy, duly verified from Engineer Incharge, to concerned Ordering Authority of the Discom along with bill of Payment claim as per Format M.25.

- c) 2nd installment of 10% of the final contract value (Discom wise) (inclusive of taxes) only after commissioning of all systems and successful integration/ implementation of Monitoring & Control System (for all feeders) including online portal for real time monitoring and control, after receipt of claim from the successful bidder with following documents duly verified by Ordering Authority /Engineer In-charge of concerned Discom, will be made by Designated Payment Officer of Discom within 45 days from the date of submission of invoice along with relevant documents completed in all aspects.
 - i. Invoice issued by the successful bidder.
 - ii. Confirmation of the deployment & integration of Monitoring & Control system including online portal from Ordering Authority of Discom.
 - iii. Signed Contract Agreement with Discom.

Note: Two sets of above listed documents must be prepared & one copy be submitted to Payment Officer of Discom & second copy, duly verified from Engineer In-charge, to Ordering Authority of the Discom along with bill of Payment claim as per Format M.25.

- d) Balance 10% of the final contract value (Discom wise) (inclusive of taxes) only after successful completion of O&M period of 5 years from date of deployment of online portal, after receipt of claim from the successful bidder with following documents duly verified by Ordering Authority / Engineer In-charge of concerned Discom, will be made by Designated Payment Officer of Discom within 45 days from the date of submission of invoice along with relevant documents completed in all aspects.
 - i. Invoice issued by the successful bidder.
 - ii. Confirmation of the successful completion of the O&M period of 5 years from the Ordering Authority / Engineer-in-Charge of concerned Discom.
 - iii. Signed Contract Agreement with Discom.

Note: Two sets of above listed documents must be prepared & one copy be submitted to Payment Officer of Discom & second copy, duly verified from Engineer In-charge, to Ordering Authority of the Discom along with bill of Payment claim as per Format M.25.

I.2. Penalty Provisions

2.1.1. During installation and commissioning phase:

- a) A duly constituted Committee of officials of concerned Discom will physically inspect the completed feeder(s) in not more than 3 days from the date of receiving a written call from the bidder and certify successful commissioning.
- b) In case bidder fails to achieve the commissioning of feeder(s) in line with the stipulated timelines of 6 months (or, any extension thereof), concerned Discom shall encash the Performance Bank Guarantee (PBG) and/or, Additional Performance Security (if applicable) as liquidated damages (LD) in the following manner:

For delay in completion of work up to 1 month from scheduled date of commissioning	0.5% per week subject to maximum 10% of the balanced order value plus applicable GST
Delay beyond 1 month from scheduled date of commissioning	Termination of Contract & Encashment of PBG

c) In case of delays in commissioning due to the reasons beyond the control of the bidder, JVVNL after having been satisfied with documentary evidences produced by the bidder for the purpose, can extend the time for commissioning date without any financial implications on the bidder.

Monthly communication connectivity and data availability (based on system generated report)	Applicable Penalty per device
> 95%	NIL
Less than 95%	Deduction of 5% of the apportioned price of the apportioned yearly value of balance 10% of contract value for O&M period for every 1% or part there of decrease in availability under 98%
Less than 90%	Deduction of 10% of the apportioned price of the apportioned yearly value of balance 10% of contract value for O&M period for every 1% or part there of decrease in availability under 90%
Less than 80%	Deduction of 15% of the apportioned price of the apportioned yearly value of balance 10% of contract value for O&M period for every 1% or part there of decrease in availability under 80%
Less than 75%	No payment for that device for the year

2.1.2. During Operations and Maintenance phase:

2.1.3. In case of failure to ensure communication connectivity of more than 95% and data availability of 95% by the successful bidder, Discom(s) shall have full liberty to rectify such issues as may be necessary to restore the required level of communication connectivity and data availability at the risk and cost of the successful bidder (recoverable from pending / subsequent bills).

SECTION - J: OTHER TERMS AND CONDITIONS

J.1. Inspection

- 1.1.1. The inspection shall be carried out by the purchaser at two stages of manufacture i.e inspection during manufacturing and final inspection and testing.
- 1.1.2. Prior to dispatch, the materials may be inspected and tested by respective Discom or TPIA, at the works of OEM (Original Equipment Manufacturer), where the IIOT based device and its components are manufactured. The successful bidder shall inform Discom for such inspection at least 10 (ten) days in advance before the probable date of dispatch. Discom to deploy the inspecting officer within 10 days from the date of inspection call / information from the successful bidder. Materials dispatched without Discom's approval shall not be accepted and the Discom shall have right to reject it and recover the cost so incurred from the successful bidder.
- 1.1.3. <u>Cost of inspection:</u> All the expenses related to inspection team like lodging, boarding, travelling, and air tickets to be borne by the successful bidder. The successful bidder will provide necessary inspection & testing facility at his cost.
- 1.1.4. However, if the material is not kept ready for inspection after intimation of the offered quantity on the scheduled date for inspection then all consequences will be to successful bidder account and Discom will recover the re-inspection charges @ Rs. 15,000/- for outside Rajasthan State inspection and within Rajasthan State @ Rs. 7,500/-.
- 1.1.5. DISCOM reserves the right to inspect any number of systems at OEM works at their discretion.
- 1.1.6. Discom may visit and inspect the manufacturing unit of every part /item of the system after issuance of Work Order or during implementation to ensure the status and infrastructure and process of quality control of product.
- 1.1.7. Systems installed under the allocated work in this tender shall meet the scope of work as highlighted under SECTION D: and technical specification as specified in SECTION K:. Non-compliance will be taken seriously to the extent of blacklisting of the vendor, in the same manner as specified, apart from taking action under any other law in force.
- 1.1.8. The inspection of materials and components of the project carried out by Discom's / TPIA representative shall not relieve the successful bidder from full responsibility of completing the project confirming to the requirement of the Contract.
- 1.1.9. The tenderer must indicate what testing facilities are available in the works of the manufacturer and whether the facilities are adequate to carry out all Routine, and Acceptance Tests.
- 1.1.10. All logical tests of the Device shall be carried out at the manufacturer's works and load test of the device shall be carried out at the Stores /Transformer Repairing Agencies defined by the DISCOM.
- 1.1.11. Following Minimum testing facility shall be available at Manufacturer work place:
 - a. Variable 3 phase AC Source (0 to 270 V)

- b. Variable 3 phase current source (up to 200 A
- c. Voltage, current, & KW Measurement panel.
- d. 3 Phase Load of Minimum 5 KW.
- e. Megger (Min 500 V) & Clamp ON meter.

J.2. Guarantee

- 2.1.1. The retrofitted systems under the Project shall be guaranteed by the Successful Bidder for a minimum period of 5 five years from the date of successfully commissioning of the last system, in regard to quality of design, survey, material, workmanship, quality of process/ manufacturing, performance, installation, etc.
- 2.1.2. In the event any defect is found or developed in the system within guarantee period, shall be rectified/replaced by the successful bidder at his own expense promptly within 7 days of receipt of intimation.
- 2.1.3. The Successful Bidder shall have to incorporate all changes required in controller logics and web Dashboard as per DISCOM requirements free of cost during the guaranty period.
- 2.1.4. The successful bidder will submit the manufacturer Warranty for all equipments and meters on Non Judicial Stamp paper of Rs 500/- after award of contract.

J.3. System approval from the Ordering Authority

3.1.1. The Ordering Authority of concerned Discom shall issue approval of all the installed Systems in their Discom for the purpose of deployment of online portal and processing of payment to the successful bidder.

J.4. Work & Safety Regulations

- 4.1.1. The Successful bidder shall ensure proper safety of all the workmen, materials, plants and equipment belonging to him or to the Discom or to others, working at the site. The successful bidder shall also be responsible for provision of all safety notices and safety equipment required both by the relevant legislations and the engineer, as they may deem necessary.
- 4.1.2. All equipment used in construction and erection by successful bidder shall meet Indian/International standards and where such standards do not exist, the Successful Bidder shall ensure these to be absolutely safe. All equipment shall be strictly operated and maintained by the successful bidder in accordance with manufacturer's operation manual and safety instructions and as per guidelines / rules of the Discom in this regard.
- 4.1.3. The successful bidder shall provide suitable safety equipment of prescribed standard to all employees and workmen according to the need.
- 4.1.4. The successful bidder shall not interfere or disturb electric fuses, wiring and other electrical equipment belonging to the Discom under any circumstances, whatsoever, unless expressly permitted in writing by the Discom to handle such fuses, wiring or electrical equipment.

- 4.1.5. In case any accident occurs during the construction / erection or during guarantee period of 5 years for the activities undertaken by the successful bidder thereby causing any minor or major or fatal injury to his employees / labourer due to any reason, whatsoever, it shall be the responsibility of the successful bidder to promptly inform the same to the concerned Engineer-in-charge in prescribed form and also to all the authorities envisaged under the applicable laws. For any fatal / nonfatal accident to human or animal or any mishap within area of installation due to mishandling or reason whatsoever attributable to the IIOT device retrofitted on DTs by the successful bidder at the time of execution of the contract, successful bidder has to pay compensation as provided under the relevant applicable Act.
- 4.1.6. The successful bidder shall follow and comply with the Discom's safety rules relevant provisions of applicable laws pertaining to the safety of workmen, employees, plant and equipment as may be applicable from time to time without any demur, protest or contest or reservations. In case of any discrepancy between statutory requirement and Discom's safety rules referred above, the latter shall be binding on the successful bidder unless the statutory provisions are more stringent.
- 4.1.7. It shall be the responsibility of the successful bidder to ensure compliance of all applicable rules and regulations through the contract period including but not limited to following:
 - (a) The Central Electricity Authority (Safety requirements for Construction, Operation and Maintenance of Electrical Plants and Electric Lines) Regulations 2011
 - (b) The Central Electricity Authority (Measures relating to Supply and Electric Supply) Regulations 2010
 - (c) The Central Electricity Authority (Technical Standards for Construction of Electrical Plants and Electric Lines) Regulations 2010
 - (d) The Central Electricity Authority (Installation and Operation of Meters) Regulations 2006

J.5. Type and quality of materials

- 5.1.1. The bidder shall ensure that the specifications of the components/ equipment's should meet the technical specifications of JVVNL.
- 5.1.2. Any material/ equipment which have not been specifically mentioned in this RFP but which are necessary during implementation or O&M period & associated online portal shall be provided by the bidder without any extra cost and within the time schedule for efficient and smooth implementation and O&M activities.

J.6. Quality Assurance Plan

- 6.1.1. The successful bidder shall have ISO-9001/9002 or any latest, certification". The successful bidder shall invariably furnish the following information along with his bid failing which his bid shall be liable for rejection should be given be individual type of material offered.
 - a. Statement giving list of important raw materials, name of suppliers for raw material, list of standards according to which the raw materials are tested and list of tests

normally carried out on raw materials in presence of successful bidder's representative, copies of tests certificates,

- b. Information and copies of test certificates as in (a) above in respect of bought out items,
- c. List of manufacturing facilities available
- d. Level of automation and list of areas where manual processing exists.
- e. List of areas in manufacturing process where stage inspections are normally carried out for quality control and details of such test.
- f. List of testing equipment available with the bidder for stag and final testing Of equipment offered and test plant limitations if any, vis-à-vis the type test, special acceptance and routine tests specified in the relevant standards. The System limitations shall be very clearly brought out in the relevant schedule of deviation as deviations from specified tests requirements.

J.7. Repeat/ Additional Orders

- 7.1.1. In view of Rule no. 73 of RTPP rules 2013, procurement of additional quantities and / or extra items shall be governed by following conditions:
 - (a) For additional procurement of works, the ceiling for individual items shall be 50% of the ordered quantity subject to 50% of the original contract value. In case of goods and services this shall be 50% of the original contract value.
 - (b) The ceiling for extra items(s) shall be 5% of the original contract value.
 - (c) The provision to the above effect should be specified in the bidding documents.
 - (d) Before placing the order for additional quantity or extra items, the procuring entity shall obtain prior approval for the revised requirements / procurement from the competent authority for reasons to be recorded in writing. Whenever necessary due to the quantum of orders for additional quantities / extra items, the procuring entity shall obtain and revised technical financial and administrative approvals from the competent authorities.
 - (e) The limit of 50% of the value of original contract shall not be exceeded in any case.

J.8. Insurance

8.1.1. The successful bidder shall also take insurance for third party liability covering loss of human life, engineers and workmen. Before commencement of the work, the bidder shall ensure that all its employees and representatives are covered by suitable insurance against any damage, loss, injury or death arising out of the execution of the work. Liquidation, Death, Bankruptcy etc., shall be the responsibility of the successful bidder only.

8.1.2. Application of Insurance Proceeds

a. In case of the Project not being implemented through Financing Agreement(s), save as expressly provided in this Agreement or the Insurances, the proceeds of any insurance claim made due to loss or damage to the Project or any part of the Project shall be first applied to reinstatement, replacement or renewal of such loss or damage.

- b. In case of the Project being financed through Financing Agreement(s), save as expressly provided in this Agreement or the Insurances, the proceeds of any insurance claim made due to loss or damage to the Project or any part of the Project shall be applied as per such Financing Agreements.
- c. If a Force Majeure Event renders the Project no longer economically and technically viable and the insurers under the Insurances make payment on a "total loss" or equivalent basis, Discom shall have claim on such proceeds of such Insurance limited to outstanding dues of Discom against successful bidder.

J.9. Jurisdiction of Contract

9.1.1. The laws applicable to the Contract shall be the Laws in force in India. The court at Jaipur District of Corporate Office of JVVNL shall have exclusive jurisdiction in all matters arising under this contract.

J.10. Change in Laws & Regulations

- 10.1.1. Unless otherwise specified in the Contract, if after the date of the submission of bids, any law, regulation, ordinance, order or bylaw having the force of law is enacted, promulgated, abrogated, or changed in Rajasthan/ India, where the Site is located (which shall be deemed to include any change in interpretation or application by the competent authorities) that subsequently affects the Deployment Date and/ or the cost, then such Deployment Date and/ or Contract Price shall be correspondingly increased or decreased, to the extent that the Successful Bidder has thereby been affected in the performance of any of its obligations under the Contract.
- 10.1.2. It is clarified that any change in the rates of any Taxes after the last day of submission of the bid, including any duties and cess or introduction of any new tax made applicable for project by the selected bidder which have a direct effect on the Project, shall only be considered as change in law. However, change in law shall not include:

(i) any change in taxes on corporate income; or

(ii) any change in any withholding tax on income or dividends.

J.11. Code of Integrity

- 11.1.1. All the officers or employees of Discoms shall:
 - a) maintain an unimpeachable standard of integrity both inside and outside their office
 - b) act in accordance with the provisions of the Act, these rules, guidelines issued under the Act and instructions
 - c) not allow any bidders to have access to information on a particular procurement, before such information is available to the public at large
 - d) not intentionally use unnecessarily restrictive or "tailored" specifications, terms of reference or statements of work that can discourage competition

- e) not solicit or accept any bribe, reward or gift or any material benefit of any directly or indirectly promise of future employment from anyone, who has sought or is seeking procurement from Discom.
- f) not have a financial interest in any bidder(s) responding to three Discoms and any person having financial interest in any bidder shall not participate in this tender process
- g) not disclose proprietary and source selection information, directly or indirectly, to any person other than a person authorised to receive such information
- h) treat all bidders in a fair and equitable manner in line with the principle of fairness, integrity and transparency in the procurement process
- i) provide all bidders identical information at the same time, during the bidding process
- apply the same criteria of evaluation as specified in the bidding documents, bidder registration documents or pre-qualification documents and under no circumstances new evaluation criteria shall be introduced during the evaluation process
- k) not entertain any favour, recreation, presents, services, etc. from the bidders or prospective bidders
- I) protect the interests of the Discom under all circumstances while dealing with information and information sources
- m) maintain confidentially of all bids
- n) ensure that the selection of bidder is as per the RFP document and is not influenced by personal reasons attributable to concerned officials in any manner
- o) Disclose conflict of interest, if any.
- 11.1.2. Any Bidder participating in Tender process shall:
 - a) not offer any bribe, reward or gift or any material benefit either directly or indirectly in exchange for an unfair advantage in procurement process or to otherwise influence the procurement process
 - b) not misrepresent or omit information that misleads or attempts to mislead so as to obtain a financial or other benefit or avoid an obligation
 - c) not indulge in any collusion, bid rigging or anticompetitive behaviour to impair the transparency, fairness and progress of the Tender process
 - d) not misuse any information shared between Discom and the bidders with an intent to gain unfair advantage in the Tender process
 - e) not indulge in any coercion including impairing or harming or threatening to do the same, directly or indirectly, to any party or to its property to influence the Tender process
 - f) not obstruct any investigation or audit of a Tender process
 - g) disclose conflict of interest, if any; and
 - h) disclose any previous transgressions with any entity in India or any other country during the last three years or any debarment by any other procuring entity.

J.12. Breach of code of integrity by the bidder

12.1.1. Without prejudice to the provisions of Chapter IV of the RTPP Act 2013, in case of breach of any provision of the code of integrity by a bidder or prospective bidder, as the case may be, JVVNL may take appropriate action in accordance with the provisions of subsection (3) of section 11 and section 46 of the RTPP Act 2013.

J.13. Vexatious Appeals & Complaints

13.1.1. Whoever intentionally files any vexatious, frivolous or malicious appeal or complaint under the "The Rajasthan Transparency Public Procurement Act 2012 / Rules 2013", with the intention of delaying or defeating any procurement or causing Loss to JVVNL or any other bidder, shall be punished with fine which may extend to Twenty Lakh Rupees or five per cent of the project value, whichever is less.

J.14. Offences by Firms/ Companies

14.1.1. Where an offence under "The Rajasthan Transparency Public Procurement Act 2012 / Rules 2013" has been committed by an entity, every person who at the time the offence was committed was in charge of and was responsible to the entity for the conduct of the business of the entity, as well as the entity, shall be deemed to be guilty of having committed the offence and shall be Liable to be proceeded against and punished accordingly:

Provided that nothing contained in this sub-section shall render any such person Liable for any punishment if he proves that the offence was committed without his knowledge or that he had exercised all due diligence to prevent the commission of such offence.

- 14.1.2. Notwithstanding anything contained in (a) above, where an offence under this Act has been committed by an entity and it is proved that the offence has been committed with the consent or connivance of or is attributable to any neglect on the part of any director, manager, secretary or other officer of the entity, such director, manager, secretary or other officer shall also be deemed to be guilty of having committed such offence and shall be Liable to be proceeded against and punished accordingly.
- 14.1.3. For the purpose of this clause
 - a) "Entity" means a body corporate and includes a LLP, firm, registered society or co-operative society, trust or other association of individuals; and
 - b) "Director" in relation to a LLP or firm, means a partner in the firm.
- 14.1.4. Abetment of certain offences: Whoever abets an offence punishable under this Act, whether or not that offence is committed in consequence of that abetment, shall be punished with the punishment provided for the offence.

J.15. Debarment from Bidding

- 15.1.1. A bidder shall be debarred by concerned Discom if he has been convicted of an offence
 - a) under the Prevention of Corruption Act, 1988 (Central Act No. 49 of 1988); or

- b) Under the Indian Penal Code, 1860 (Central Act No. 45 of 1860) or any other Law for the time being in force, for causing any Loss of Life or property or causing a threat to public health as part of execution of a public procurement contract.
- 15.1.2. A bidder debarred under sub-clause 15.1.1 (a) above shall not be eligible to participate in a bidding process of any of the three Rajasthan Discoms for a period not exceeding three years commencing from the date on which he was debarred.
- 15.1.3. If JVVNL find that a bidder has breached the code of integrity prescribed in terms of "Code of Integrity for bidders" above, it may debar the bidder for a period not exceeding three years.
- 15.1.4. Where the entire Bid Security or the entire Performance bank guarantee / Additional Performance Security (if applicable) or any substitute thereof, as the case may be, of a bidder has been forfeited by the Purchaser in respect of any bidding process or contract, the bidder may be debarred from participating in any bidding process undertaken by JVVNL for a period not exceeding three years.
- 15.1.5. JVVNL shall not debar a bidder under this section unless such bidder has been given a reasonable opportunity of being heard.

SECTION - K: TECHNICAL SPECIFICATIONS

K.1. System Components:

- a. Industrial IoT Based DCU with
 - i. EDGE Computing
 - ii. Cellular, Wi-Fi, GPS connectivity
 - iii. RS232 DLMS / RS485 MODBUS RTU connectivity to integrate Bidirectional, Discom approved Energy meter
- b. Discom approved Energy meter
- c. 0.5 Class CT for higher rating Systems (> 60A)
- d. AC-3 Power Contactors to control power supply at transformer Output
- e. Existing Enclosure, Suitable cable with required Accessories
- f. Cloud SCADA Platform, Web and Mobile Application

K.2. General Technical and operational requirements

- 2.1.1. The equipment shall be fixed on the LV bushing of a Distribution Transformer (DT) having various capacity like 10, 16, 25, 63, 100 kVA, etc.
- 2.1.2. Contactors of AC3 category shall be used. Minimum rating of each pole shall be as per below:

Sr No	ltem	AC-3 Contactor Current Rating
1	Smart Distribution Transformer-Type-1 (10-60 A)	66 A or Higher per phase
2	Smart Distribution Transformer-Type-2 (100 A)	125 A or Higher per phase
3	Smart Distribution Transformer-Type-3 (200 A)	225 A or Higher per phase

- 2.1.3. The equipment shall be tamper-proof and opening shall be by authorized person only. The provision of Limit switch shall be provided for monitoring unauthorized opening of top metal cover of M & P box. The instance of opening shall be recorded in the monitoring devices and shall also reported to Remote Stations.
- 2.1.4. The communication shall be GPRS/2G/3G/LTE based and all the parameters need to be reported to the remote centre as well as commands like time-settings, opening and closing, single phase and three phase, etc. shall be possible from remote as well as local programmable time based as well as voltage based. The threshold value of voltage for 1ph/3ph operation and threshold current to turn ON/OFF contactors can be remotely programmable.
- 2.1.5. All outdoor Metal housing, including bushing insulators, Gaskets with their mountings, shall be designed in such a way that no water shall be ingress

2.1.6. Sim Card Management:

- a. The bidder shall ensure the availability, insertion, and management of The SIM cards to be used in IIoT Based DCU. In order to pursue this, the following shall be in the scope of Bidder.
- b. The selection of SIM Service Provider shall be based on the availability of signal strength at a particular location. In exceptional cases of poor signal strength, the Successful Bidder may use a dual sim card in consultation with DISCOM to ensure reliable signal connectivity with the server.
- c. The Procurement of SIM cards from Internet service providers with due approval of DISCOM and availability of SIM cards before the installation starts.
- d. The new sim card purchase cost shall be borne by Bidder.
- e. The bidder shall be responsible for the management of SIM inventory including but not limited to total installed, in-stock, replaced and rejected/suspended/terminated SIMs.
- f. The bidder shall ensure that the SIM information is available in the head end system before physical installation is carried out.
- g. The bidder shall have to ensure timely suspension, termination, activation and reactivation of SIMs, and the process shall comply with the prevailing regulations of DoT / TRAI
- h. High gain antenna to be considered to ensure better GPRS signal strength when it is found that the GPRS signal strength is insufficient at the locations of installation.
- i. There shall be a provision in the SDD to have the approachable slot with the least dimensions for the requirement of access to the SIM card, SD Card, and Ethernet port.
- j. This slot shall be covered by an enclosure with a lock and sealing facility maintaining the IP54.
- k. The Successful Bidder shall undertake the integration, operation, and maintenance of the above components along with its proof of concept (PoC) and user acceptance test (UAT).
- I. It shall be in the scope of the bidder to manage and perform all the necessary function/ activities required to keep the communication alive from Smart DT to remoter server/cloud though DCU to meet the desired functional requirements.
- m. It is not the intent to specify completely here in all the details of the design & construction of material. However, the material shall conform in all respects to high standards of Engineering, design and workmanship operation in a manner acceptable to the purchaser, who will interpret the meanings of drawings and specification and shall have the power to reject any work or material which in his judgment is not in accordance therewith. The offered material shall be complete with all components necessary for their effective and trouble-free operation. Such components shall be deemed to be within the scope of bidders' supply irrespective of whether these are specifically brought out in his specification and/or purchaser order or not.

K.3. Service Conditions

3.1.1. System Particulars/Distribution Network Parameters

a. The normal system parameters of the distribution network are as below.

Network	3Phase-3wire
System Voltage (LT) (incoming to DT) 170 to 275 V (Phase to neutronic structure)	
Transformer Voltage ratio 11/0.433 KV	
No of phases Three	
System Frequency 50 Hz±3%	
Neutral Earthing Solidly Earthed	
Method of Earthing Effectively earthed	

3.1.2. Atmospheric Particulars

a. The atmospheric conditions under which the Distribution transformer with retrofitted IIOT device should perform continuously and successfully are mentioned as below:

S. No.	Parameter	Value
1	Peak ambient temperature	50°C
2	Minimum Ambient Temperature in shade	-5°C
3	Maximum average ambient temp. in a 24 hours period in shade	45°C
4	Maximum yearly weighted average ambient temperature	35°C
5	Maximum temperature attainable by an object exposed to sun	60°C
6	Maximum relative humidity	1
7	Average number of thunder storm days per annum	40
8	Average number of rainy days per annum	120
9	Average annual rainfall	15-100 cm
10	Number of months of tropical monsoon conditions	4 Months
11	Maximum wind pressure	195 Kg/mt²
12	Altitudes	Not exceeding 1000 mtrs.

The equipment shall be for use in moderately hot and humid tropical climate, conducive to rust and fungus growth.

K.4. Applicable Standards

a. Unless otherwise specified elsewhere in this Specification, Power contactor, LT PVC insulated flexible copper cable, IIoT gateway, Energy Meter, control wires and other associated accessories shall conform to the latest revisions and amendments thereof to the following standards.

S No	Applicable IEC/IS	Description
1	IEC 60947-4-1	Low-voltage switchgear and control gear: Contactors and motor-starters – Electromechanical contactors and motor-starters

S No	Applicable IEC/IS	Description	
2	IEC 60947-5-1	Low-voltage switchgear and control gear: Control circuit devices and switching elements - Electromechanical control circuit devices	
3	IS 694:2010	Polyvinyl chloride (PVC) insulated unsheathed and sheathed cables/cords with rigid and flexible conductor	
4	IS: 8130	Conductors for insulated electric cables and flexible cords	
5	IEC 61000-4-2	Electromagnetic compatibility: Testing and measurement techniques - Electrostatic discharge immunity test	
6	IEC 61000-4-4	Electromagnetic compatibility (EMC): Testing and measurement techniques - Electrical fast transient/burst immunity test	
7	IEC 61000-4-5	Electromagnetic compatibility (EMC): Testing and measurement techniques - Surge immunity test	
8	IEC 61000-4-6	Electromagnetic compatibility (EMC): Testing and measurement techniques - Immunity to conducted disturbances, induced by radio-frequency fields	
9	IEC 61000-4-8	Electromagnetic compatibility (EMC): Testing and Measurement Techniques - Power Frequency Magnetic Field Immunity Test	
10	IEC 61000-4-11	Electromagnetic compatibility (EMC): Testing and measurement techniques - Voltage dips, short interruptions and voltage variations immunity tests	
11	IS – 7421/IS - 3347	Specification for Low Voltage bushings/ outdoor Low Voltage bushings	
12	IS - 4257	Dimensions for clamping arrangements for bushings	
13	IS 13410	Glass reinforced polyester sheet moulding compounds (SMC)	
14	IS 14772	General Requirements for Enclosures for Accessories for Household and Similar Fixed Electrical Installations	
15	CEA Standard for Communication system	Central Electricity Authority (Technical Standards for Communication System in Power System Operation) Regulations, 2020"	
16	EN 55022 / CISPR 22/ CISPR 32	Information technology equipment - Radio disturbance characteristics - Limits and methods of measurement	
	All Indian Electricity Rules/ Bills amended up to date applicable for clearances, safety and operation of the equipment		

b. Equipment meeting with the requirements of any other authorities standards, which ensures equal or better quality than the standard mentioned above as well as latest standard shall also be acceptable. If the equipment, offered by the Bidder conform to other standards, salient points of difference between the standards adopted and the specific standards shall be clearly brought out in relevant schedule. In case of any

difference between provisions of the System standards and provisions of this specification, the provisions contained in this specification shall prevail. One hard copy of such standards with authentic English Translations shall be furnished along with the offer.

K.5. Detail Technical Specifications:

5.1.1. IIoT based DCU

- a. Power Supply (Inbuilt or External):
 - i. Input Supply: AC, 3 Phase 4 Wire, SMPS
 - ii. Input Voltage: 85 520 VAC
 - iii. DC-DC Isolation: 2 kV Isolation between Communication, Data Acquisition and Metering circuit
 - iv. Battery backup for RTC
 - v. Rechargeable Battery backup to ensure Grid power supply status information even during complete power failure.
- b. Remote Communication:
 - i. Cellular Communication: GSM/GPRS/EDGE
 - ii. GPS/GNSS based Location tracking with +- 10 meters accuracy
- c. Local Communication and Storage:
 - i. It shall also have provision of Wi-Fi communication connectivity for local configuration and data collection.
 - ii. Device shall have built in storage to store 45 days data of 30 parameters at every 5 minutes interval
 - iii. Device shall have built in RTC to store data with time stamp
- d. Data Acquisition System:

Digital Inputs:	Number of channels: 4 Type: Dry / Potential Free Contact	
Digital Outputs:	Number of channels: 4 Type: Open collector	
Analog Inputs:	Number of Channels: 4 Type: 0-10 Vdc or 4-20 madc, 0.1% FSR accuracy	

- e. Embedded SCADA with EDGE Computing:
 - i. Abnormal Event detection and recording with Running Hours and Consumption during event: Voltage Un balance, Current Un balance, Over Voltage, Under Voltage, Over Load, High Reactive Power, Low PF, Missing Potential, Current Missing, 1 Phase Supply
 - ii. It shall have Dual SIM based cellular connectivity to provide redundancy in cellular communication

- iii. It shall also have built in web server for configuration of the device and data exchange with clients
- iv. It shall have built in RTC to store data with time stamp in case of loss of connectivity with cloud server and as soon as connectivity establishes, it shall back fill the history data to server

5.1.2. Central SCADA Software:

- a. Central Software shall be hosted on Cloud / Discom Data center
- b. Mobile Application shall be provided for anytime anywhere access and receiving push notifications for alerts and notifications.
- c. All web clients and mobile clients shall connected through Web server
- d. It should be possible to visualize Status of all Sites on Google Maps with Geo Tagging, Electrical parameters of consumers and DT, Trend Analysis of multiple electrical parameters, Dash board for Performance and loss calculations, Energy audit etc.
- e. Central Software Provided by Bidder shall have following minimum features:
 - i. <u>Device Management</u>: Device connectivity, communication and data processing application to connect and configure minimum 25000 devices
 - ii. <u>Event Management</u>: To configure and process multiple alarms against various electrical, analog and digital parameters
 - iii. <u>Notification Management</u>: To send SMS or Push or Mail Notifications against events on Mobile Application user. It shall be possible to configure user wise notifications against multiple events based on severity of events
 - iv. <u>Data base Server and Back Up</u>: Bidder shall store block wise parameters including events for Six months, Daily archived data required for reports and analysis for 5 years on cloud server. If required by Discom, bidder shall also provide Daily archived data in MySQL database of Discom server for back up purpose
 - v. <u>Energy Accounting and Audit Module with Interface of billing</u>: Billing data shall be transferred to Discom through FTP or API as required in bidirectional mode.
 - vi. <u>Report Manager</u>: Bidder should provide Report Manager with following functionalities
 - Create and Save Report Templates
 - Schedule Auto Generation of reports in pdf format without human intervention
 - Automatic Report mail facility to mail auto generated reports on predefined schedule
 - vii. <u>User and Role Management</u>: It should be possible to configure multiple organizations as well as users against organization with different levels of User Access Control. It shall be possible to enter manual data with user based access control

5.1.3. Power Cable:

- a. The power cable used for connection between Transformer LT bushing to DT Enclosure Outer bushing through Power contactor and Energy meter shall be flexible flame retardant (FR) PVC Insulated single core unsheathed industrial multi-strand plain annealed electrolytic grade bare copper conductors having 99.97% purity for voltage grade up to 1100 V confirming to IS 694:2010.
- b. Cable construction:
 - i. Conductor: Plain annealed electrolytic grade copper conductor as per IS: 8130
 - ii. Insulation: Primary PVC with FR property as per IS 5831
 - iii. Colour- R Phase-Red, Y Phase-Yellow, B Phase- Blue
 - iv. All the cables quoted / supplied shall bear ISI mark. The PVC Cable shall conform in all respects to high System standards of engineering, design, workmanship, this specification and the latest revisions of relevant standards at the time of offer.
 - v. The cables shall be suitable for being installed in outdoor metallic enclosure which is in contact with top of Transformer Tank. The insulation shall withstand mechanical and thermal stress under steady state and transient operating conditions.

5.1.4. **Power contactors:**

a. The Contactors shall confirm to the latest IS specification IS/IEC 60947-4-1. The contactor shall be suitable for motor duty for 690 V ac with impulse withstand capacity of 6 kV. The contactor shall have no derating up to 55oC service temperatures. In case the contactors need derating, manufacturer shall declare the derated current carrying capacity at 55oC service temperatures. The contactors shall be suitable operation duty AC3. For each phase 3P/4P Contactor shall have to be provided by successful bidder. The Contactor selected should have a coil of low VA burden.

General Required GTP of Power Contactors		
SR No Particulars		Values
1	Applicable standard	IEC 60947-4-1
2	Utilization category	AC-3
3	Rated Operational Voltage	433 V/50 HZ
3	Rated Insulation voltage	690 V
4	Rated Impulse withstand voltage	8 KV
5	5 Ambient temperature -5 °C to 55 ° C	
6	6 Control circuit type AC, 50 HZ	
7	Rated Breaking capacity	Shall be confirming to IEC 60947-4-1
8	Rated Making capacity	Shall be confirming to IEC 60947-4-1

General Required GTP of Power Contactors			
SR No	Particulars	Values	
9	Rated short time withstand current	Shall be confirming to IEC 60947-4-1	
10	Mechanical Durability	10 Million cycles	
11	Electrical Durability	1 Million cycles	
	Limit of operation		
12	Pick- up (% of coil voltage)	85-110 %	
	Drop-off (% of coil voltage)	30-60 %	
	Auxiliary contacts		
	Contacts confirming to standard	IEC 60947-5-1	
13	Nos of Built in/Add on Aux Contacts	1 NO/1 NC	
	Short circuit protection	Shall be Confirming to IEC 60947-5-1	
	Rated making capacity	Shall be Confirming to IEC 60947-5-1	

5.1.5. IIoT Based DCU (DCU):

- a. The DCU shall run diagnostics at power up and shall have a continuous communication error checking facility.
- b. System firmware and user configuration will be maintained in flash memory so as not to be lost during power interruptions.
- c. There should be a provision in DCU to change the controlling parameters (frequency of data logging and data communication) from the central data center using GPRS/CDMA 2G/34/4G (SIM Card compatible with fall back to 2G and 3G) communication. The DCU should have the capability to capture and transmit the supply status data in real-time.
- d. The auxiliary power supply requirements of the DCU shall be managed from the LV side of the transformer. DCU shall be powered up from a 3-phase, 4-wire internal or external SMPS having 12/24 VDC output using any two-wire operations. The Input Supply Voltage of SMPS shall be 3-Phase, 85-520 VAC. While the consumer shall receive 3-phase power during daytime, the night-time power shall become a 1-phase supply from any phase among three-phase. Further, the selection of phase (whether R, Y, or B) shall not be pre-determined. Hence, the power supply to the DCU and any other dependent electronics in the Metering Console shall be capable of supplying power to this equipment under the above-mentioned conditions. It is to keep while designing that the DCU shall not be electrically loaded to consumer metering. All the required cabling and installation of the supplied components shall be the responsibility of the bidder.
- e. DCU shall have a built-in Real-Time Clock (RTC) with a separate battery backup. The battery shall have a guaranteed life of 10 years. It shall have a self-diagnostic feature for RTC, memory, battery, communication module, etc. Alternatively, Software-driven RTC may also be used as per agreement between supplier and utility. It shall also propose to obtain the instantaneous data with a timestamp from each installed meter, through DLMS protocol to IIoT base DCU at a pre-defined interval.

f. DCU should have a suitable feature to send power outage and restoration message to the HES. The battery shall have a guaranteed life of 10 years

5.1.6. The IIoT Based DCU Communication Interface for DT shall be as follows:

- a. Serial Connectivity: The DCU shall consist of at least 02 numbers isolated RS 232 ports (01 Nos for Energy meter, 1 No of standby), and 01 Nos of isolated RS 485 Ports (1 no of spare for future application).
- b. MODBUS communication shall be over a 2-wire as specified under TIA/EIA-485-A. The DCU shall be able to communicate on a baud rate of 9600, 19200, and Higher bps as per the requirement of the individual connected equipment. The RS485 connections shall be through the RJ45connector and the RS232 connections shall be through the RJ11 connector. The Protection shall be up to 2000 Vrms Isolation from Input Power Supply, Field IO, and Controller.
- c. The DCU shall be provided additional field interfaces through at least 04 Digital input with Dry/Potential Free Contacts and with isolation up to 2000 Vrms ((3 Inputs for Phase wise contactor operation feedback and 1 for Door Sensors)
- d. DCU shall be Provided at least 04 built in or external relay outputs capable of handling 230 VAC (+20%), currents up to 5 A switching Device/Contactors, which shall have an isolation capability of up to 4000 VAC, electrical endurance of at least 100,000 cycles and mechanical endurance of at least 10,00,000 cycles.
- e. Secure Wi-Fi: The DCU shall have the capability of being connected locally through its secure WiFi. Access to this WiFi shall be through a hand-held device such a mobile phone with both reads & write access. The Successful Bidder shall provide an appropriate mobile application (the "Mobile App" or "App") to connect with this WiFi in a secure password-protected manner to connect to the DCU. Both meter reading & writing shall be allowed over WiFi; i.e. the capability of programming the DCU over WiFi shall be enabled. The authentication for WiFi Communication with IIoT Based DCU shall be with HTTPS protocol.
- f. It shall be configurable over web server using MODBUS Over HTTP Protocol
- g. The remote connectivity of DCU shall be through MQTT/CoAP/XMPP protocol Over GPRS
- h. The DCU shall communicate with the cloud server through 2G/3G/LTE GPRS connectivity using a secure communication protocol. The DCU shall provide data to the cloud server in JSON format as defined in MNRE Guidelines for state-level SEDM platform Development. The DCU shall be capable of also providing data to DISCOM's server or any other server specified by the Client in the format requested by the Client.
- i. The DCU to server communication interval should be configurable in multiple of 1 minute for a different group of data. DCU should have provision for on-demand communication for data and configuration read as well as write.
- j. The DCU shall have dual SIM capability and quad-band GSM/ GPRS connectivity, GPRS shall be multi-slot Class 12, with low power consumption and operating temperature range of 0 to 75°C.It shall support SIM cards from any service provider.

- k. Over the air (OTA) capability: The DCU shall have OTA capability to update the DCU's configuration with prior approval of DISCOM, add/ rectify configuration files of meters and inverters, change data formats, change communication destination locations, troubleshoot software bugs (if any) in a secured manner.
- I. History backfills during GPRS Failure: In case of failure of GPRS connectivity, the DCU shall store the required data in an SD card, which shall serve as its internal memory storage. Once GPRS connectivity is restored the DCU shall synchronize with the cloud server and communicate all the missing data. SD card shall be able to store data Up to 50 parameters periodically at an interval of 15 minutes and up to 10000 event data with a local timestamp for at least six months.
- m. Remote Diagnostics: The DCU shall be capable of supporting remote diagnostics such as RSSI (signal strength), network status, GPRS status, connectivity status and shall be capable of remotely restarting the GPRS module. The DCU shall also be capable of local RS485/RS 232 master diagnostics including the number of communication failures per port, number of errors per port, meter-level Communication error, and so on. Event/Alarm Server: To configure and process events against any measured parameter (Voltage/Current/KW/KVAR etc.)
- n. In case of an event, Event Status shall update on Local SCADA as well as Web Page connectivity and alarm server will push message to the remote cloud with a snapshot of all meter parameters in that group
- Communication Modes, Communication Protocols and Communication Security to be followed as per MNRE Communication Guidelines for Remote Monitoring System. (Annexure-1)
- p. Functionality for local meter reading: WiFi may be used more often especially in areas with poor mobile data connectivity in the absence of remote data availability. In such cases, the DisCom's meter reader will have to physically go to the Metering Console to fetch the meter data. Once the DisCom's meter reader locally transfers the DCU's data into its mobile device via secured Wi-Fi connectivity, the Mobile App shall be capable of transferring and synchronizing this data with the cloud server and its database in order to ensure a seamless database.

5.1.7. Energy Meters and other components:

- a. The detailed technical specifications for energy meters are separately enclosed as **Annexure-2** of this tender.
- 5.1.8. **Operational Logic Controller for Smart DT:** (It may be changed as and when required during the Guaranty/AMC/CMC period)
 - a. Operation Logic Controller can be an integral part of IIoT Gateway or a separate unit other than IIoT Gateway
 - b. Objective of controller is to perform operation as well as protection logics even in case of remote connectivity failure based on local programmed controller.
 - c. Feeder Status Determination
 - i. Feeder status to be determined only if condition persists for remotely configurable "hold time".

- ii. Remotely Configurable Registers
 - Voltage Thresholds
 - Hold Time for Single Phase Power On
 - Hold Time for Three Phase Power On
- d. Running Hours Calculations
 - i. Controller should do running hours calculations to be updated in non-volatile memory at every 10 minute interval of the following:
 - Day Running Hour Three Phase Feeder input
 - Day Running Hour Single Phase Feeder input
 - Day Running Hour Overloading duration
 - Day Running Hours Three Phase Output
 - Day Running Hours Pump ON status

e. Operation Modes

- i. Device should operate in remotely selectable Operation Modes
- ii. Mode-1: Solarisation Mode without Compensation of Extra 3 Phase Hours to consumer
 - In this mode, Controller should switch on all three contactors on detecting three phase status of feeder after waiting for "Delay Time for Three Phase Duration"
 - Controller should switch contactors to Single Phase mode when Current time – Three phase start time > "Three phase Limit Hours"

iii. Mode-2: Solarisation Mode with Compensation

- This mode is similar to Mode-1.
- But in this mode, controller should switch contactors to single phase only if "Day Running 3ph Hours" > "Three phase Limit Hours"
- iv. Mode-3: Daily Schedule Mode
 - 1. In this mode, the controller should work as per the daily schedule which is remotely configurable for number of minutes with start time and stop time, 3 phase supply is to be provided to individual / group of consumers.

v. Mode-4: Remote Manually ON/OFF

- User shall have facility to make ON/OFF Contactors remotely or 1 phasing power supply with various security level.
- Remote ON Operation with Pump Running hrs selection
- Remotely Configurable Registers for
 - Running Hours or Duration (in Minutes)
 - Operation Mode Selection

- Delay Time for Operation
- Daily Schedule: Start Date & Time, Stop Date & Time
- Various threshold limits for identifications of different fault conditions (for ex. Phase missing, voltage unbalance, very high voltage, very low voltage, over current)
- f. Over Current Protection
 - i. Over Load Protection Logic
 - If load increases more than "over current limit", controller should switch off the contactors for remotely configurable "Wait Time Duration". Device should repeat the same action for configured "Repeat count"
 - If "Over Current" condition persist even after repeat count, it should trip permanently
 - On request of consumer, it should be possible to remove permanent trip status remotely
 - ii. Remotely Configurable Limits:
 - Rated Current
 - Over Current Limit in % of rated Current
 - Wait Time Duration
 - Repeat Count
- g. Contactor Chattering Protection

Controller should provide remotely configurable "dead band of voltage" for contactor operation to avoid chattering of contactors in case of low voltages

5.1.9. LV Bushing fixing on M & P Box

- a. The Fixing of LV Bushing with standard marking (phase identification) on a metal plate of SDD Enclosure shall be as per Drawing NO-2of these specifications.
- b. Bushing shall be of porcelain / epoxy material. The LV bushings shall conform to the relevant standards specified and shall be of 1.1 KV class outdoor type.
- c. Dimensions of the bushings of the voltage class shall conform to the Standards specified and the dimension of the clamping arrangement shall be as per IS 4257.
- d. Minimum external phase to phase and phase to earth clearances of bushing terminals shall be as follows:

Voltago	Clearance	
Voltage	Phase to Phase	Phase to Earth
LV , 0.433 KV (L-L)	75 mm	40 mm

e. The LT bushing rods and nuts shall be made of brass material and not less than 12 mm diameter. (This supply shall not be in the scope of supplier)

- f. The bushings shall be of reputed make supplied by those manufacturers who are having manufacturing and testing facilities for insulators. (This supply shall not be in the scope of supplier).
- g. The live part of LV bushing, power contactors and power PVC cable shall be separated by insulation barrier of partition (minimum 2 mm thickness) from Electronics Devices used inside SDD Enclosure to limit electromagnetic interference as per drawing no-2 (Dimensions may vary)

K.6. Major Components and combinations for "SDD-60 A"

S. No.	Description	Quantity	Scope of supply
1	IIoT-based DCU to communicate with 3 Ph Energy meter through DLMS protocol and with cloud server through secure communication protocol as per Technical Specifications	1 No.	Successful
2	LT Energy Meter,10-60 A, 3 Ph 4 Wire with RS 232 port and compatible to communicate through DLMS protocol as per Technical Specifications	1 No.	bidder
3	Phase wise Contactors as per technical Specifications	3 Nos	

K.7. Major Components and combinations for "SDD-100 A"

S No.	Description	Quantity	Scope of supply
1	IIoT-based DCU to communicate with 3 Ph Energy meter through DLMS protocol and with cloud server through secure communication protocol as per Technical Specifications	1 No.	
2	LT Energy Meter,100/5 A, 3 Ph 4 Wire with RS 232 port and compatible to communicate through DLMS protocol as per Technical Specifications	1 No.	Successful bidder
3	Phase wise Contactors as per technical specifications	3 Nos]
4	3 Nos of Ring Type CTs of 100/5 Amp	3 Nos	

K.8. Major Components and combinations for "SDD-200 A"

S. No.	Description	Quantity	Scope of supply
1	IIoT-based DCU to communicate with 3 Ph Energy meter through DLMS protocol and with cloud server through secure communication protocol as per Technical Specifications	1 No.	Guarantia
2	LT Energy Meter,200/5 A, 3 Ph 4 Wire with RS 232 port and compatible to communicate through DLMS protocol as per Technical Specifications	1 No.	Successful bidder
3	Phase wise Contactors as per technical Specifications	3 Nos	
4	3 Nos of Ring Type CTs of 200/5 Amp	3 Nos	

K.9. Wiring:

- a. In all types of wiring due consideration shall be given for neatness, good appearance and safety.
- b. All the circuit wires shall be properly crimped with lugs and connected to terminals. Power cable shall be properly terminated with tinned copper lugs and cables Identification tags soldered with lugs as directed.
- c. Material of Power cable Lug: ETP Grade Copper IS 1857.

K.10. Name Plate:

- a. Name Plate for SDD: Distribution Transformer shall be provided with Nameplate made of anodized aluminum/ stainless steel material and shall be securely fixed on the outer body of SDD, It shall be a Non-detachable type, with legible and indelible marking.
- b. Name Plate for SDD Device: A metallic nameplate with the following marking shall be fixed on the front door of the SDD box in a suitable position.
 - i. Title: Smart DT Transformer / SDD Device
 - ii. Name of Manufacturer
 - iii. Workorder No. with date
 - iv. Serial Number: Unique Id
 - v. Max Transformer Capacity (KVA)
 - vi. Contactor current capacity
 - vii. CT ratio
 - viii. Energy Meter rating
 - ix. Property of_____

Sr. No. of the SDD will be unique Id no. DISCOM will maintain the unique id so as to avoid duplication.

JVVNL : 1XXXXXXX (with bar code)

JDVVNL: 2XXXXXXX (with bar code)

AVVCL: 3XXXXXXX (with bar code)

K.11. Type test

- a. IIoT based DCU: The DCU shall be Type tested for compliance to following EMI/EMC standards in any International Lab, Accredited Cooperation (ILAC), or an external National Accreditation Board of Testing and Calibration Laboratories (NABL) or any govt. lab in accordance with relevant IS/IEC latest amendments.
- b. Type tests shall not be more than 5 years old on the date of the Tender opening. All the type test reports shall be submitted by the successful bidder within the commencement period. The offers received without type tests shall be tested as non-responsive rejected.

EMI/ EMC Testing		
S. No.	Particulars	
1	Surge Immunity Test (IEC 61000-4-5),2 kV, Level-3	А
2	Electrical Fast Transient (IEC 61000-4-4), 2 kV, Level-3	А
3	Electrostatic Discharge (IEC 61000-4-2), 4 kV, Level-2	А
4	Radiated Electromagnetic Field Test (IEC 61000-4-3), 3 V/m, Level-2	А
5	Power Frequency Magnetic Field (IEC 61000-4-8),10 A/m,Level-3	А
6	Conducted Disturbances induced by radio frequency (IEC 61000-4-6), 10 Vrms, Level-3	А
7	Voltage Dips, short interruptions (IEC 61000-4-11) A	
8	Dry Heat test (IEC 60068-2-2), continuous operations @ 55 deg. C	0
9	Damped Heat Test (IEC 60068-2-78), @ 95% RH and 40 deg. C	0
Note:	Passing Criteria	
A: Temporary degradation or loss of function or performance which is self-recoverable O: Normal performance within the specified limits		
Other Tests		
1	Radio Interference measurement as per CISPR22	As per Std.

c. Other Components: The manufacturer shall supply all type test certificates for Power Contactors, SMPS, Energy meters. All the Type Tests shall be as per relevant IS/IEC standards and shall be carried out from Laboratories which are accredited by the National Board of Testing and Calibration Laboratories (NABL) or equivalent.

K.12. Acceptance and Routine Tests

- a. All acceptance and routine tests as stipulated in the relevant standards for individual components of the SDD shall be carried out by the supplier in presence of DISCOM's engineer in charge. Immediately after the manufacturing of SDD, the supplier shall give fifteen days advance intimation in writing to concern DISCOM to enable him to depute his representative for witnessing the tests. The following are the acceptance test for the confirmation of SDD(but not limited to system tests, purchaser shall have the right to add or delete the tests for acceptance after more detailed engineering during the scope of project execution)
- b. Visual Inspection To verify that the system to be delivered has all required components and is properly configured. Visual inspection shall verify acceptable workmanship and that all equipment, including cables and connectors, are appropriately labeled and connected.
- c. Communications and Interfacing Test Verify that all interconnected system components, such as data acquisition, control, monitoring, and data management functions are operating properly when correctly connected.
- d. IIoT based DCU Functionality verification Verify that all system functions of DCU are working normally as set forth in the contract (For Ex. Data acquisition form Energy meter, Data Acquisition by Wi-Fi Module and Other Provisions, etc.)
- e. Various contactor operation modes verifications: Contactors Operation shall be verified for different operation modes as per specifications.

- f. Test for Web Dashboard data availability as per Json Format (instantaneous, Billing Data, Load survey, and Temper data)
- g. Default Protection threshold limits verifications

K.13. Approval before mass manufacture

a. The successful tenderer shall manufacture one proto type and offer proto inspection and testing at their works. Mass production can be taken up only after approval of proto sample.

K.14. Drawing and documentation:

- a. The tenderer shall have to submit detailed constructional and dimensional, control drawing of WDD enclosure along with adaptor with details of Contactors, SMPS, Energy Meter, IIoT gateway incoming and outgoing circuit details, LT bushing arrangement, and clearance details along with the offer. And any other relevant drawing required by purchaser.
- b. Drawings, diagrams, instructions and reports shall be identified by descriptive titles indicating their applications to the equipment offered.
- c. All dimensions shall be in metric system.
- d. All the drawings of individual equipment shall be marked with all Technical details, Guaranteed Technical Particulars, details of manufacturer etc.
- e. On approval of all drawings one set of drawings shall be sent to each sub-division where WDT to be installed & one set each to the concerned Division & Circle office shall also be provided. All Approved drawings in Auto CAD format shall be submitted to the Project Implementation Cell.

K.15. Packing & Forwarding

- a. The equipment shall be packed in creates suitable or vertical, horizontal transport as the case may be and suitable to withstand handling during transport and outdoor storage during transit. The supplier shall be responsible for any damage to the equipment during transit, due to improper and inadequate packing.
- b. Packed and marked with the appropriate caution symbol. Wherever necessary proper arrangement for lifting such as fitting hooks shall be provided. Any material found short within the packing case(s) shall be supplied immediately by the supplier without any extra cost to purchaser.
- c. Each consignment shall be accompanied with a detailed pacing list containing the following information and shall be marked "PROPERTY OF DISCOM"
 - i. Name of the consignee
 - ii. Details of consignment
 - iii. Destination
 - iv. Total Weight
 - v. Handing and packing instruments.
 - vi. Bills of material indicating contents of each package.

- d. In addition to the above the marking on each package shall per relevant standards.
- e. The packing shall be done as per manufactures standards practice ensuring that no material is damage during transit by Rail/Road.

K.16. Integration

a. SYSTEM shall preferably interface with existing state-level SEDM on standard interfaces and the data exchange models and interfaces shall comply with MNRE guidelines attached in **Annexure 1**.

K.17. Guaranteed Technical Parameters (GTP):

a. (IIoT) Based DCU device (To be furnished by the Manufacturer)

IIoT based DCU GTP			
S. No.	Details	Bidders Response	
1	Make and Model No		
2	3 Phase Power Supply with Isolation		
3	RS 232 Communication Ports: Nos		
4	RS485 Communication Ports: Nos.		
5	Ethernet Communication Port: Nos.		
6	Dual SIM GPRS (yes/No)		
7	RTC with Battery Back-Up and GSM Sync		
/	provision & RTC battery life & Accuracy (Yes/No)		
8	Digital Inputs Nos		
9	Relay/Digital Outputs, 5 A, 230VAC/30VDC		
10	Analog Inputs, 0.1% FSR, 24-Bit ADC		
11	EMI/EMC Compliance (Yes/No)		
	a. IEC61000-4-2		
	b. IEC61000-4-4		
	c. IEC61000-4-5		
	d. IEC61000-4-6		
	e. IEC61000-4-8		
	f. IEC61000-4-11		
12	IIoT Communication Protocols		
13	JSON Message Format attached?		
14	SD Card Storage availability and capacity		
15	History Back Fill (Yes/No)		
16	Periodic Push Data (Yes/No)		
17	On-Demand Read and Write (Pull)		
18	Events and Notifications (Yes/No)		
19	Remote Configuration (Yes/No)		
20	TLS based encrypted communication (Yes/No)		
21	Battery backup provision for reporting Power loss		
21	and Battery back up duration (Yes/No)		
22	Built-in Temperature sensor (Yes/No)		
23	Type of Mounting		
24	Dimensions		

S.No.	Particulars	Value
	Power Contactor	
1	Make & Contactor application	
2	Utilisation category	
3	Poles description	
4	Rated operational voltage	
5	rated operational current	
6	Control circuit type and voltage	
7	Auxiliary contact composition	
8	Rated impulse withstand voltage	
9	Irms rated making capacity	
10	Rated breaking capacity	
11	Rated short-time withstand current	
12	Average impedance	
13	Electrical durability	
14	Mechanical durability	
15	Ambient temperature	
16	Product certifications	
17	Operating time	
18	Operating rate	
19	Coil technology	
20	Hold-in power consumption in VA	
21	Heat dissipation	
22	Minimum switching voltage	
23	IP degree of protection	
24	Pick- up (% of coil voltage)	
25	Drop-off (% of coil voltage)	
	Energy - Meter	
1	Meter make, rating	
2	Accuracy class	
3	Communication port	
4	Operating voltage range	
5	Auxiliary supply voltage	
6	Size (Dimensions)	
	Metal Enclosure	
1	Dimensions of Adaptor and WDD enclosure	
2	Type of coating and paint	
3	Type of LT bushing and voltage rating	

b. Power contactor, Energy meter and Metal Enclosure (*To be furnished by the Manufacturer*)
S.No.	Particulars	Value
1	Operating Temperature range	
2	Variable Input range (V)	
3	Rated Frequency	
4	Input Surge Protection and standard	
5	Output voltage (V Dc)	
6	Rated power/ Amp	
7	Insulation Class	
8	Single phase or 3 Phase?	
9	Dimensions	
10	Type Tested As per standard	
11	Certification if Any?	

c. SMPS GTP (If External SMPS Used) (To be furnished by the Successful bidder)

d. GTP for SDD-60A, 100A, 200A (To be furnished by the Successful bidder)

S. No.	Particulars	60A SDD	100A SDD	200A SDD
1	Energy Meter rating			
2	Contactor rating per Pole/Phase			
3	Energy Meter communication port type and Communication protocol			
4	CT ratio (if Used)			
5	Door Locking Facility Available?			
6	Earthing Provision Available (Yes/No) and Its Type			
7	Type and size of Glands for Cable Entry			
8	Type of Installation support Facility			
9	Cable Termination Arrangement type (Terminal Block/ Bus Bar) and size			
10	Conductor Type, Nos of Core, Type of Insulation and size of Cable used for Internal Wiring			
11	Bus bar material and size (mm*mm) (if used)			

SECTION - L: DETAILED DISCOM WISE TENDERED QUANTITY

L.1. JVVNL

Discom	•		JVVNL		
Circle:		JPDC			
Division	Division:		Shahpura		
Subdivisio	on:		Radawas		
Substatio	on:		Radawas		
11kV Feeder Name	Three Phase DT capacity	No. of Three Phase Distribut T Transformers having following agriculture connections		llowing no. of	
		1	2	Total	
	10kVA	7		7	
	16kVA	76		76	
Shivsinghpura	25kVA	53	7	60	
	40kVA	1	2	3	
	10kVA	1		1	
	16kVA	49		49	
Jagatpura	25kVA	14	13	27	
	40kVA	4	4	8	
	100kVA		1	1	
	10kVA	27		27	
	16kVA	31		31	
Nayan	25kVA	27	38	65	
	40kVA	1		1	
	63kVA		1	1	
De devues City	16kVA	1		1	
Radawas City	160kVA		2	2	
	10kVA	21		21	
	16kVA	38		38	
Kalyanpura	25kVA	21	15	36	
	40kVA	1	2	3	
	63kVA		2	2	
	10kVA	7		7	
	16kVA	66		66	
Gulabwadi	25kVA	13	3	16	
	40kVA	1		1	
	63kVA		1	1	
TOTAL		460	91	551	

Discor	n:		JVVNL	
Circle:		JPDC		
Divisio	Division:		DD-I	
Subdivis	ion:		KUNDA KI DH	ANI
Substati	ion:		TALA	
11kV Feeder Name	Three Phase DT capacity	No. of Three Phase Distribut Transformers having following agriculture connections		llowing no. of
		1	2	Total
	10kVA	7		7
Characterist	16kVA	64		64
Shyampura	25kVA	31	12	43
	40kVA		1	1
	10kVA	15		15
Dha la	16kVA	79		79
Dhoula	25kVA	35	15	50
	40kVA	1		1
	10kVA	10		10
	16kVA	67		67
Dantala	25kVA	34	12	46
	40kVA	2		2
	63kVA	2		2
	10kVA	3		3
Jaichandpura	16KVA	64		64
	25kVA	31	10	41
	10kVA	8		8
	16kVA	54		54
Dantala New	25kVA	11	13	24
	40kVA	2		2
	10kVA	13		13
	16kVA	89		89
Ladipura	25kVA	25	35	60
	40kVA		1	1
	10kVA	2		2
Burhanpura	16KVA	8		8
•	25kVA	5	2	7
TOTA		662	101	763

L.2. AVVNL

Discor	n:		AVVN	L
Circle:		Sikar		
Divisio	n:		Rural Sil	kar
Subdivis	ion:		Kudar	ı
Substati	on:		Palthar	าล
11kV Feeder Name	Three Phase DT capacity	No. of Three Phase Distribution Transformers having following no. agriculture connections		following no. of
		1	2	Total
	16 KVA	9		9
Dachidaura	25 KVA	20		20
Rashidpura	40 KVA	3	5	8
	63 KVA	1		1
	16 KVA	28		28
Palthana Rural	25 KVA	44		44
	40 KVA	10	7	17
	16 KVA	11		11
Lalasi	25 KVA	27	3	30
Laidsi	40 KVA	4	10	14
	63 KVA		1	1
	16 KVA	6		6
Narodra	25 KVA	6		6
Natuuta	40 KVA	1	2	3
	63 KVA	1		1
	16 KVA	3		3
Khuri pratapura	25 KVA	4		4
	40 KVA		4	4
ΤΟΤΑ	L	178	32	210

Discom:		AVVNL			
Circle:	Circle:		Jhunjhunu		
Divisior	1:		Nawalga	arh	
Subdivisi	on:		Mukandg	garh	
Substatio	on:		Sotwar	a	
11kV Feeder Name	Three Phase DT capacity	No. of Three Phase Distribution Transformers having following no. o agriculture connections		following no. of	
		1	2	Total	
	16 KVA	17		17	
Sotwara Rural	25 KVA	9	11	20	
	40 KVA	2	5	7	
	16 KVA	28		28	
Mandasi	25 KVA	21	9	30	
	40 KVA	2	14	16	
	16 KVA	21		21	
Jodiya Jodha	25 KVA	13	7	20	
	40 KVA		11	11	
TOTAL		113	57	170	

L.3. JdVVNL

Discom:		JdVVNL			
Circle:	Circle:		Jalore		
Division	:		Ahore		
Subdivisio	on:		Ahore		
Substatio	n:		Dayalpu	ra	
11kV Feeder Name	Three Phase DT capacity	No. of Three Phase Distribution Transformhaving following no. of agriculture connections12Total		of agriculture	
				Total	
	10kVA	3		3	
Madri AG	16kVA	33		33	
IVIAUTI AG	25kVA	33		33	
	40kVA	5		5	
	10kVA	1		1	
Charli AG	16kVA	9		9	
Chani AG	25kVA	50		50	
	40kVA	5		5	
TOTAL		139	0	139	

Discom:			JdVVN	L		
Circle:	Circle:		Jalore			
Division:			Jalore			
Subdivisio	า:		Ummedp	our		
Substation	:		Pawta			
11kV Feeder Name	Three Phase DT capacity	0 0 0		Three Phase having following no. of agricultur		of agriculture
		1	2	Total		
	10kVA	9		9		
	16kVA	24		24		
Palasiya	25kVA	34	11	45		
	40kVA	6	2	8		
	63kVA	1		1		
	10kVA	6		6		
	16kVA	10		10		
Rasiyawas	25kVA	12		12		
	40kVA	1		1		
	63kVA		1	1		
	10kVA	5		5		
Sedriya	16kVA	7		7		
	25kVA	16	6	22		
TOTAL		131	20	151		

SECTION - M: FORMATS

M.1. Bid Security

{To be executed on Non-judicial Stamp paper of worth 0.25% of Bank Guarantee Value (maximum stamp duty of Rs 25000/-) If the BG is furnished from bank of other state with different Stamp Worth, then the difference value will be submitted on Rajasthan NJS Paper}

Bank Guarantee No.: Date:

To Superintending Engineer (Regulation) Room No. 149, Old Power House Premises, Banipark, Jaipur-302016

KNOW ALL PERSONS by these present that WE (Insert name & address of the issuing bank) having its Registered/Head Office at (Insert address of registered office of the bank)....... (Hereinafter called "the Bank"), are bound unto Jaipur Vidyut Vitran Nigam Limited (hereinafter called "the Employer") in the sum of....... (Insert amount of Bid Security in figures & words).......... for which payment well and truly to be made to the said Employer, the Bank binds itself, its successors and assigns by these presents.

Sealed with the Common Seal of the said Bank this day of 20....

The "Conditions" of this obligation are:

- 1. If the Bidder withdraws its bid during the period of bid validity specified in the "Tender Document" issued vide NIT No:; or
- In case the Bidder does not withdraw the deviations proposed by him, if any, at the cost of withdrawal stated by him in the bid and/or accept the withdrawals/rectifications pursuant to the declaration/confirmation made by him in Format – Declaration on Deviation in the Bid; or
- 3. If the Bidder does not accept the corrections to arithmetical errors identified during preliminary evaluation of his bid pursuant to Tender Document; or
- 4. In the case of a successful Bidder, if the Bidder fails within the specified time limit

- a. to sign the Contract Agreement, in accordance with Section H.4 of Tender Document; or
- b. to furnish the required Performance Security, in accordance with Section H.2 of Tender Document; or
- 5. In any other case, specifically provided for in Tender Document.
- 6. All disputes arising under this said Guarantee between the Bank and the Employer or between the Successful Bidder and the Employer pertaining to this said Guarantee shall be subject to the jurisdiction of Courts only at Jaipur, Rajasthan alone.

We undertake to pay to the Employer up to the above amount upon receipt of its first written demand, without the Employer having to substantiate its demand, provided that in its demand the Employer will note that the amount claimed by it is due to it, owing to the occurrence of any of the above-named Conditions or their combination, and specifying the occurred Condition or Conditions.

This guarantee will remain in full force up to and including (Valid for 30 days beyond the Bid Validity i.e. 90 days + (plus) additional 30 days grace period)...... and any demand in respect thereof must reach the Bank not later than the above date.

For and on behalf of the Bank

[Signature of the authorised signatory Signature Name	(ies)]
Designation	
POA Number	
Contact Number(s): Tel	
Fax Number	
email	
Common Seal of the Bank	
Witness:	
Signature	
Name	
Address	
Contact Number(s): Tel	
email	

Note:

- 1. In case the bid is submitted by a Joint Venture, the Bid Security of a JV must be in the name of all the partners, lead or other partner in the joint venture submitting the bid.
- 2. The Bank Guarantee shall be in accordance with the proforma as provided. However, in case the issuing bank insists for additional paragraph for limitation of liability, the

following may be added at the end of the proforma of the Bank Guarantee [*i.e., end* paragraph of the Bank Guarantee preceding the signature(s) of the issuing authority(ies) of the Bank Guarantee]:

<u>Quote</u>

"Notwithstanding anything contained herein:

- 1. Our liability under this Bank Guarantee shall not exceed ______ (value in figures)_____ [______ (value in words)].
 (value in figures)______ (value in the shall not exceed ______ (value in the shall not exceed _____ (value in the shall not exceed ______ (value in the shall not exceed __
- 2. This Bank Guarantee shall be valid upto _____(validity date)_____.
- 3. We are liable to pay the guaranteed amount or any part thereof under this Bank Guarantee only & only if we receive a written claim or demand on or before ______(validity date)______."

<u>Unquote</u>

M.2. Format of Affidavit for MSME Unit

{On Non-Judicial Stamp Paper of Rs. 100/- attested by Notary Public/ First Class Magistrate}

Affidavit for MSME Unit

IS/oAgeYrs.Residing at Proprietor / Partner / Director of M/s ("Enterprise") do hereby solemnly affirm and declare that:

S. No.	Name of Item	Production Capacity (Yearly)
1		
2		
3		
4		
5		

- (b) My/Our above noted acknowledgement of Entrepreneurial Memorandum Part II has not been cancelled or withdrawn by the Industries Department and that the Enterprise is regularly manufacturing the above items.
- (c) My/Our Enterprise is having all the requisite plant and machinery and is fully equipped to manufacture the above noted items.
- (d) The present status of the firm is as per acknowledgment of Entrepreneurial Memorandum Part-II issued on the date of District Industries Centre.

Place

Signature of Proprietor/ Director/

Authorized Signatory with Stamp and Date

VERIFICATION

l,	S/o	_ Aged Years
residing at	Proprietor/	Partner/ Director of
Enterprise M/s		verify and confirm
that the contents at (a), (b), (c) & (d) above	e are true and correct	to the best of my
knowledge and nothing has been concealed the	rein. So, help me God.	

DEPONENT

M.3. Power of Attorney in favour of Authorized Signatory (In Case of Bidder is Single Entity)

{On Non-Judicial Stamp Paper of Rs. 500/- attested by Notary Public/ First Class Magistrate}

The Bidder is required to submit valid Power of Attorney in the Format as per the applicable under Indian Law.

M.4. Power of Attorney in favour of Authorized Signatory (In Case Bidder is Joint Venture)

{On Non-Judicial Stamp Paper of Rs. 500/- attested by Notary Public/ First Class Magistrate}

KNOW ALL MEN BY THESE PRESENTS THAT WE, the Partners whose details are given hereunder have formed a Joint Venture under the laws of and having our Registered Office(s) / Head Office(s) at (hereinafter called the 'Joint Venture' which expression shall unless repugnant to the context or meaning thereof, include its successors, administrators and assigns) acting through M/s being the Partner in-charge do hereby constitute, nominate and appoint Company incorporated under the laws M/s.....a of having Registered/Head Office at and its as our duly constituted lawful Attorney (hereinafter called "Attorney" or "Authorised Representative" or "Partner In-charge") to exercise all or any of the powers for and on behalf of the Joint Venture in regard to "Bid Specification" for the work of "Survey, Design, development, supply, testing, installation and commissioning for virtual feeder segregation of 11kV feeders using Industrial Internet of Things (IIOT) Based Device on existing Agriculture Distribution Transformers supplying power to agriculture consumers with O&M for 5 years and development & integration of online portal with billing system for complete Remote Monitoring and Control", under NIT No:, for which bids have been invited by Jaipur Vidyut Vitran Nigam Limited ("JVVNL" / "Jaipur Discom") undertake the following acts:

- i. To submit proposal and participate in the aforesaid Bid Specification of JVVNL on behalf of the "Joint Venture".
- ii. To negotiate with JVVNL the terms and conditions for award of the Contract pursuant to the aforesaid Bid and to sign the Contract with the JVVNL for and on behalf of the "Joint Venture".
- iii. To do any other act or submit any document related to the above.
- iv. To receive, accept and execute the Contract for and on behalf of the "Joint Venture".

It is clearly understood that the Partner In-charge (Lead Partner) shall ensure performance of the Contract(s) and if one or more Partner fail to perform their respective portions of the Contract(s), the same shall be deemed to be a default by all the Partners.

It is expressly understood that this Power of Attorney shall remain valid binding and irrevocable till completion of the period to complete all the Scope of Work awarded under the terms of Bid Specification/ Contract.

The Joint Venture hereby agrees and undertakes to ratify and confirm all the whatsoever the said Attorney/ Authorised Representatives/ Partner in-charge quotes in the bid and negotiates with JVVNL and signs the Contract with JVVNL and/or proposes to act on behalf of the Joint Venture by virtue of this Power of Attorney and the same shall bind the Joint Venture as if done by itself.

IN WITNESS THEREOF the Partners Constituting the Joint Venture as aforesaid have executed these presents on this day of under the Common Seal(s) of their Companies.

For and on behalf of the Partners of Joint Venture

The Common Seal of the above Partners of the Joint Venture:

The Common Seal has been affixed there unto in the presence of:

WITNESS

Signature.....
 Name
 Designation

Occupation	

2. Signature.....

Name Designation Occupation

Note:

- 1. For the purpose of executing the Agreement, the non-judicial stamp papers of appropriate value shall be purchased in the name of Joint Venture.
- 2. The Agreement shall be signed on all the pages by the authorised representatives of each of the partners and shall invariably be witnessed.

M.5. Undertaking by the Joint Venture Partners (In Case Bidder is Joint Venture)

{On Non-Judicial Stamp Paper of Rs. 500/- attested by Notary Public/ First Class Magistrate}

WHEREAS the Party No.1 and Party No.2 have entered into an Agreement dated.....

AND WHEREAS JVVNL has invited bids as per the above mentioned Bid Specification for the work of Survey, Design, development, supply, testing, installation and commissioning for virtual feeder segregation of 11kV feeders using <u>Industrial Internet of Things (IIOT) Based</u> <u>Device</u> on existing Agriculture Distribution Transformers supplying power to agriculture consumers with O&M for 5 years and development & integration of online portal with billing system for complete Remote Monitoring and Control, under NIT No:

AND WHEREAS SECTION - E:1.1.1forming part of the RFP document, inter-alia stipulates that an Undertaking of upto two qualified entities as partners in a Joint Venture, meeting the requirements of Eligibility & Qualification Criteria SECTION - E:, as applicable may bid, provided, the Joint Venture fulfils all other requirements under SECTION - E: and in such a case, the Bid Formats shall be signed wherever applicable and as required by RFP document either by the Authorized Signatory (appointed by a Power of Attorney executed by all partners of Joint Venture) and/or all the partners so as to legally bind all the Partners of the Joint Venture, who will be jointly and severally liable to perform the Contract and all obligations hereunder.

The above clause further states that this Undertaking shall be attached to the bid and the Performance bank guarantee will be as per the format enclosed with the RFP document without any restrictions or liability for either party.

AND WHEREAS the bid is being submitted to JVVNL vide Bid No (Reference No: of Bid submitted by Bidder) dated by Party No.1 based on this Undertaking between all the parties; under these presents and the bid in accordance with the requirements of RFP document, has been signed by all the parties.

NOW THIS UNDERTAKING WITNESSETH AS UNDER:

In consideration of the above premises and agreements all the parties of this Deed of Undertaking do hereby declare and undertake:

- 1. In requirement of the award of the Contract by JVVNL to the Joint Venture Partners, we, the Parties do hereby undertake that M/s the Party No.1, shall act as Lead Partner and further declare and confirm that we the parties to the Joint Venture shall jointly and severally be bound onto JVVNL for the successful performance of the Contract and shall be fully responsible for successful completion and performance of Scope of Work as provided in Contract in accordance with the terms and conditions specified in the Contract.
- 2. In case of any breach or default of the said Contract by any of the parties to the Joint Venture, the party(s) do hereby undertake to be fully responsible for the successful performance of the Contract and to carry out all the obligations and responsibilities under the Contract in accordance with the requirements of the Contract.
- 3. Further, if JVVNL suffers any loss or damage on account of any breach in the Contract or any shortfall in the performance of the equipment in meeting the performances guaranteed as per the specification in terms of the Contract, the Party(s) of these presents undertake to promptly make good such loss or damages caused to JVVNL, on its demand without any demur. It shall not be necessary or obligatory for JVVNL to proceed against Lead Partner to these presents before proceeding against or dealing with the other Party(s), JVVNL can proceed against any of the parties who shall be jointly and severally liable for the performance and all other liabilities/obligations under the Contract to JVVNL.
- 4. The financial liability of the Parties of this Deed of Undertaking to the JVVNL, as applicable, with respect to any of the claims arising out of the performance or non-performance of the obligations set forth in this Deed of Undertaking, read in conjunction with the relevant conditions of the Contract shall, however not be limited in any way so as to restrict or limit the liabilities or obligations of any of the Parties of this Deed of Undertaking.
- 5. It is expressly understood and agreed between the Parties to this Undertaking that the responsibilities and obligations of each of the Parties shall be as delineated in Appendix (to be suitably appended by the JV Partners along with this Undertaking in its bid) to this Deed of Undertaking. It is further undertaken by the parties that the above sharing of responsibilities and obligations shall not in any way be a limitation of joint and several responsibilities of the Parties under the Contract.
- 6. It is also understood that this Undertaking is provided for the purposes of undertaking joint and several liabilities of the partners to the Joint Venture for submission of the bid and performance of the Contract and that this Undertaking shall not be deemed to give rise to any additional liabilities or obligations, in any manner or any law, on any of the Parties to this Undertaking or on the Joint Venture, other than the express provisions of the Contract.
- 7. This Undertaking shall be construed and interpreted in accordance with the provisions of the Contract.

- 8. In case of an award of a Contract, we the parties to this Deed of Undertaking do hereby agree that we shall be jointly and severally responsible for furnishing a Contract Performance bank guarantee from a bank in favour of JVVNL in the currency/ currencies of the Contract.
- 9. It is further agreed that this Deed of Undertaking shall be irrevocable and shall form an integral part of the bid and shall continue to be enforceable till JVVNL discharges the same or upon the completion of the Contract in accordance with its provisions, whichever is earlier. It shall be effective from the date first mentioned above for all purposes and intents.

IN WITNESS WHEREOF, the Parties to this Deed of Undertaking have through their authorised representatives executed these presents and affixed Common Seals of their companies, on the day, month and year first mentioned above.

Common Seal of has been affixed in my/ our presence pursuant to Board of Director's Resolution dated	For Lead Partner (Party No1) For and on behalf of M/s
Name Designation Signature	(Signature of the authorized representative)
WITNESS: I II	
Common Seal of has been affixed in my/ our presence pursuant to Board of Director's Resolution dated	For Party No2 For and on behalf of M/s
Name Designation Signature	(Signature of the authorized representative)
WITNESS: I	

Note:

- 1. For the purpose of executing the Joint Deed of Undertaking, the non-judicial stamp papers of appropriate value shall be purchased in the name of Joint Venture.
- 2. The Undertaking shall be signed on all the pages by the authorised representatives of each of the partners and shall invariably be witnessed.
- 3. Attach the Appendix....as mentioned in the Clause 5 of this Deed of Undertaking.

M.6. Bid Submission Letter/Undertaking

(On Letterhead of Bidder/ Lead Member of JV)

From:

(Full name of Bidder / Lead Member of JV)
Address of the Organisation
Name of Authorized Signatory:
Designation:
Email ID:
Phone / Mobile No.:

To:

Superintending Engineer (Regulation)

Room No. 149, Old Power House Premises, Banipark, Jaipur-302016

Sub: Bid towards RFP for work of Survey, Design, development, supply, testing, installation and commissioning for virtual feeder segregation of 11kV feeders using <u>Industrial Internet of Things (IIOT) Based Device</u> on existing Agriculture Distribution Transformers supplying power to agriculture consumers with O&M for 5 years and development & integration of online portal with billing system for complete Remote Monitoring and Control, under NIT No:

Ref: NIT NO:;

Dear Sir,

In connection with the above subject, I / We confirm the following:

- I/We, the undersigned......[insert name of the 'Bidder'] having read, examined and understood in detail the RFP document issued vide above referenced NIT, hereby submit our "Bid" in full compliance with terms & conditions of RFP document. A copy of the RFP document, duly signed on each page is also submitted as a proof of our acceptance of all specifications as well as terms/ Conditions. I/ We have submitted the Bid in electronic form on ON-LINE mode at the Bidding Portal mentioned in the RFP document.
- 2. <u>[Insert this clause in case JV]</u> I/We are submitted our Bid in form of Joint Venture, whereby M/s..... is the Lead Member and Partner, M/s.... is the other JV Partner. We have enclosed the Joint Deed of Undertaking executed by us in our Bid as per the requirement mentioned in the RFP document.
- **3.** I/We have selected Mr....., as our Authorized Signatory in our Bid. We have enclosed the Power of Attorney (POA) executed in favour of Authorized Signatory in our Bid as per the requirement mentioned in the RFP document.
- **4.** I/We have paid the requisite amount of EMD. I/we understand that without payment of the EMD by us, our offer shall out rightly be rejected.

- 5. If, I/we are selected and shortlisted for as successful Bidder, we agree pay the required Performance bank guarantee as per the terms & conditions mentioned in the RFP document. I/We understand that I/we shall not be awarded the Contract if we fail to pay the Performance bank guarantee in stipulated time.
- **6.** I/We agree to treat the RFP document and other records connected with the Scope of Work as secret and confidential documents and shall not communicate information described therein to any person other than the person authorized by you or use the information in any manner prejudicial to the safety requirement.
- **7.** I/We understand that you are not bound to accept the lowest or any bid you may receive.
- 8. I/ We are participating, as Bidders, in not more than one Bid in this Bidding process.
- **9.** I/ We declare that our Bid is strictly in line with RFP document Specification and there is no deviation. Further, I/We also agree that additional conditions/ deviations, if any, found in our Bid, the Bid shall be out rightly rejected without assigning any reason thereof. We shall ensure that we execute such Bid documents as per the provisions of the NIT and provisions of such RFP document shall be binding on us. I/We confirm that we have not taken any deviation so as to be deemed non-responsive.
- 10. I/We hereby unconditionally and irrevocably agree and accept that the decision made by JVVNL in respect of any matter regarding or arising out of the Bid submitted by us/ RFP document issued by JVVNL shall be binding on us. We hereby expressly waive any and all claims in respect of Bid process.
- **11.** I/ We confirm that there are no litigations or disputes against us, which materially affect our ability to fulfil our obligations with regard to execution of Project mentioned in the RFP document.
- **12.** I/ We hereby submit our Bid and undertake to keep our Bid valid for a period of 90 days from the date of opening of Technical Bid. I / We hereby further undertake that during the said period, I / We shall not vary/alter or revoke my/ our Bid.
- **13.** I/We also agree to abide by and fulfil all the terms, conditions and provisions of the above mentioned RFP document.

Enclosed:

- **1.** Summary Details of Bidder/ JV Partners
- 2. Details of Material & Equipment's offered, existing & proposed after sales service centres in Rajasthan

(Signature & Seal of Authorized Signatory for which POA attached) Name of Authorized Signatory: Designation: Date: Place:

M.7. Summary Details of Bidder

(On Letterhead of Bidder for which the said details are provided. In Case of JV the following format is to be provided by Each Member of the Joint Venture)

In Response to NIT No:

S. No.	Information:	Details:					
1.	Name of Bidder:						
2.	Bidding entity:	(JV / Sole Bidder)					
3.	JV partners:	1. Lead Member:					
	(Not applicable for Sole Bidder)	2. Other Partner:					
4.	Registration status:	(Company/ LLP/ Partnership/ Sole Proprietor)					
5.	Registration Number:						
6.	GST Registration Number:						
7.	PAN No:						
8.	Key Contact details:	Name:					
		Email id:					
		Mobile no.:					
9.	Registered office details:	Address:					
		Phone no.:					
		Email ids:					
10.	Other Branch offices in India:						
	(i)	Address:					
		Phone no.:					
		Email ids:					
	(ii)	Address:					
		Phone no.:					
		Email ids:					
11.	Details of firm's Directors:						
	(i) <name director="" of=""></name>	Designation:					
		Address:					
		Mobile Number:					
		Email ID:					
	(ii) <name director="" of=""></name>	Designation:					
		Address:					
		Mobile Number:					
		Email ID:					
	(iii) <name director="" of=""></name>	Designation:					
		Address:					
		Mobile Number:					
		Email ID:					
	(iv) <name director="" of=""></name>	Designation:					
		Address:					
		Mobile Number:					
		Email ID:					

S. No.	Information:	Details:
12.	If Manufacturer of any item, the	
	Name of products being	
	manufactured:	
13.	Address of Manufacturing unit:	
14.	Brief details of firm's work	
	experiences:	

(Signature & Seal of Authorized Signatory for which POA attached)

Name of Authorized Signatory:

Designation:

Date:

Place:

M.8. Details of Material & Equipment's

(On Letterhead of Bidder/ Lead Member of JV)

In Response to NIT No:

Sr. No.	Material	Name of Manufacturer with whom Bidder has made MoU of supply material under this project (Main/ Sub- components)	Manufacturing Country	Tested from {Enclose the test certificate}	Any other details

Note:

1. Relevant test reports need to be provided by the Bidder along with the Technical Bid.

2. Also, provide complete technical data sheets for each equipment giving details of the specifications along with make/makes, basic design of the materials and equipment's used.

(Signature & Seal of Authorized Signatory for which POA attached) Name of Authorized Signatory: Designation: Date: Place:

M.9. Details of Bidder's Eligibility Requirements

(On Letterhead of Bidder/ Lead Member of JV)

То

Superintending Engineer (Regulation)

Room No. 149, Old Power House Premises, Banipark, Jaipur-302016

Sub: Bid towards RFP for work of Survey, Design, development, supply, testing, installation and commissioning for virtual feeder segregation of 11kV feeders using Industrial Internet of Things (IIOT) Based Device on existing Agriculture Distribution Transformers supplying power to agriculture consumers with O&M for 5 years and development & integration of online portal with billing system for complete Remote Monitoring and Control, under NIT No:

Ref: NIT NO: dated.....

We hereby declare that we are eligible for bidding in reference to "Eligibility Requirements" of the RFP document vide above referenced NIT No. and submit the following certificate(s) /documents in support:

S. No.	Criteria	Documents Required	Status & Supporting Documents Attached
1	Bidder can be sole/ single bidder OR, Joint Venture (JV) of up to 2 (two) members, with one of the members as a Lead Member.	In case of JV, Deed of Undertaking	Status: Documents Attached: Yes/No (Attached at Annexure to this letter)
2	 The Bidder should have any of the following legal status: a) Body incorporated in India under the Companies Act, 2013 including any amendment thereto; OR b) Body incorporated in India under the Limited Liability Partnership (LLP) Act, 2008 including any amendment thereto; OR c) Firm registered under Partnership Act, 1932 in India; OR d) Sole Proprietor In case of JV, all the members must fulfill this requirement and submit the documents as per the RFP document. 	 In case of Company Copy of Registration/ Incorporation Certificate In case of LLP – Copy of Deed of Partnership In case of Partnership – Copy of Deed of Partnership In case of Sole Proprietor – Duly notarized Undertaking from Sole proprietor 	Status: Documents Attached: Yes/No (Attached at Annexure to this letter)

S.	Criteria	Documents Required	Status & Supporting
No.		Bocuments Required	Documents Attached
3	The Bidder must have the required GST Registration. In case of JV (upto 2 members only), all the members must fulfill this requirement.	Copy of GST registration certificate with legible GSTIN.	Status: Documents Attached: Yes/No (Attached at Annexure to this letter)
4	The Bidder must have valid PAN Number In case of JV, all the members must fulfill this requirement.	Copy of Pan Card	Status: Documents Attached: Yes/No (Attached at Annexure)
5	The Bidder should have Electrical contractor license of class "A"/"B"/"C" for Electrical works in Rajasthan. In case of non-availability of the same at the time of bid submission, the Successful Bidder should submit a valid electrical contractor license of Class "A"/"B"/"C" issued by Government of Rajasthan within 1 month of award of contract. The bidder should submit an undertaking in this regard along with the bid on non-judicial stamp paper of Rs. 50. In case of JV, any one of the members must fulfill this requirement and submit the documents as per the RFP document.	Copy of Registration Certificate/ License issued by Government of Rajasthan	Status: Documents Attached: Yes/No (Attached at Annexure to this letter)
6	The bidder should have valid Insurance (ESI) and Provident Fund (PF) for its employees and comply with labour laws as per the applicable government regulations	The bidder shall provide required documentary evidence towards employees' Insurance (ESI) and PF. Also, document towards compliance of labour laws. If not applicable, the bidder shall provide an undertaking on non- applicability with reason towards the same on non-judicial stamp paper of Rs. 50 .	Status: Documents Attached: Yes/No (Attached at Annexure to this letter)

S.	Criteria	Documents Required	Status & Supporting Documents Attached		
<u>No.</u> 7	The bidders should be qualified, not be insolvent, not be in receivership, not be bankrupt or being wound up, should not have affairs administered by a court or a judicial officer, should not have business activities suspended, should not be blacklisted, or debarred by any utility/ government agency, should not have a conflict of interest. The bidder should submit an undertaking in this regard along with the bid on non-judicial stamp paper of Rs. 50. In case of JV, all the members must fulfill this requirement.	The bidder shall provide an Undertaking as per the Format M.19. In case of JV, all the members must submit the undertaking as per the Format M.19.	Status: Documents Attached: Yes/No (Attached at Annexure to this letter)		
8	The bidder must submit a Power of Attorney (POA) authorizing a person to sign the documents on behalf of the Bidder, submit technical, commercial information and attend meetings on behalf of the Bidder. In case of JV, all the JV members must submit individual PoA with supporting BoD resolution along with combined PoA (signed by individually authorized person of each JV member), except in case of proprietor wherein only undertaking in this regard is to be submitted.	Sole Bidder to provide POA as per the applicable Law as provided in SECTION - L: Format M.3 In case of JV, Undertaking by JV as per the format M.5 and POA as per the format provided in Format M.4	Status: Documents Attached: <i>Yes/No</i> (Attached at Annexure to this letter)		
9	The bidder should have "No Conflict of Interest" as defined in Clause G.4 of this RFP document. Bidders have an obligation to disclose any situation of actual or potential conflict of interest. Failure to disclose said situations may lead to the disqualification of the Bidder or the termination of its Contract. The bidder should submit an undertaking in this regard along	The bidder shall provide an undertaking as per the format provided in as per the Format M.13 In case of JV, all the members shall submit the undertaking as per the Format M.13	Status: Documents Attached: <i>Yes/No</i> (Attached at Annexure to this letter)		

S. No.	Criteria	Documents Required	Status & Supporting Documents Attached
	with the bid on non-judicial		
	stamp paper of Rs. 50.		
	In case of JV, all the members		
	must fulfill this requirement.		

All supporting documents enclosed.

(Signature & Seal of Authorized Signatory for which POA attached) Name of Authorized Signatory: Designation: Date: Place:

M.10. Details of Bidder's Qualification Requirements

(On Letterhead of Bidder/ Lead Member of JV)

То

Superintending Engineer (Regulation)

Room No. 149, Old Power House Premises, Banipark, Jaipur-302016

Sub: Bid towards RFP for work of Survey, Design, development, supply, testing, installation and commissioning for virtual feeder segregation of 11kV feeders using Industrial Internet of Things (IIOT) Based Device on existing Agriculture Distribution Transformers supplying power to agriculture consumers with O&M for 5 years and development & integration of online portal with billing system for complete Remote Monitoring and Control, under NIT No:

Ref: NIT NO: dated......

We hereby declare that we are eligible for bidding in reference to "Qualification Requirements" of the RFP document vide above referenced NIT No. and submit the following certificate(s) /documents in support:

S. No.	Criteria	Status & Supporting Documents Attached
1	Technical Criteria	
A	Bidder should have successfully Supplied, Erected, Tested and Commissioned IoT / IIoT based monitoring systems in Electrical Utility with its successful monitoring	Meeting Qualification: (Yes/No)
	since last 3 years (i.e. FY 2018-19, 2019-20 & 2020-21) as on the bid submission date for atleast 25% of the total	Documents along with Format attached in Annexure to this
	tentative tendered quantity under this RFP.	letter
	In case of JV, the lead partner shall meet not less than 25% of the total experience requirement (25% of tentative tendered quantity). Collectively, JV shall meet the 100% requirement.	
2	Financial Criteria	
A	The Bidder should have positive net worth for each of the last three Financial Years (FY18-19 to FY20-21). In case of JV, all the members must fulfill this requirement.	Meeting Qualification: (Yes/No) Documents along with
В	Minimum Average Annual Turnover (MAAT) of last 3 Financial Years (i.e., FY 2018-19, 2019-20 & 2020-21) shall not be less than 50% of total estimated project cost.	Format attached in Annexure to this letter
	The Lead partner shall meet not less than 40% AND the	

S. No.	Criteria	Status & Supporting Documents Attached
	other partner shall meet not less than 25% of MAAT	
	requirement. Collectively, JV shall meet the 100%	
	requirement.	

Supporting Documents enclosed.

(Supporting Documents, wherever required & applicable are to be attached at Annexure to this letter.....)

(Signature & Seal of Authorized Signatory for which POA attached) Name of Authorized Signatory: Designation: Date: Place:

M.11. Work Experience Certificate for Technical Qualification

(Certified by CA)

In Response to NIT No:

	Adder Partner ence) Adder	rk order	a pletion		ncement Lal	Value of work actually executed (as per completion certificate) during under-mentioned years (Amt.in Rs. Lacs)							
S. No.	Name of Bidder (In case of JV, name o Lead Member or Partn having experience)	Client Name	Description of Work	No.& Date	Amount (In Rs. Lakhs)	Stipulated comp Period	riod mme	Date of actual completion	FY2018-19	FY2019-20	FY 2020-21	Total	Remarks
1													
2													
3													
4													
			TOTAL:										

(Signature & Seal of Authorized Signatory for which POA attached) Name of Authorized Signatory:

Designation:

Date:

Place:

(Signature & Seal of Practicing Chartered Account) Certifying Chartered Accountant: Name of Firm: UDIN No: Date: Place:

JVVNL

Note:

- 1. The details of projects executed during period mentioned above shall be listed in as per the above format. In support of above, Notarised Copy of work orders and a certificate issued by the govt. or private organization towards the satisfactory work completion to be furnished by the Bidder. In absence of any one, it will not be considered for qualifying in technical bid.
- 2. Work experience certificate should have value of completed work in the name of Bidder duly certified by Practicing Chartered Accountant as per the format provided in Format M.11 mentioning UDIN.
- 3. In case of JV, both the partners should collectively meet the total work experience requirement.
- 4. The above details shall also be certified by the Chartered Accountant with their membership (UDIN) No. by sign and seal on each page of this format.

M.12. Certificate of Bidder's Financial Qualification

(On Letterhead of CA for the bidder (Bidder/ Lead Member/ Other Member) for which the below details are provided. In Case of JV the following format is to be provided by Each Member of the Joint Venture separately)

Financial Qualification Certificate

In Response to NIT No:	

(Rupees in Lakhs)

S. No.	Financial parameters	FY 2018-19	FY 2019-20	FY 2020-21
1.	Net Worth			
	(only last three years)			
a)	Paid up Capital			
b)	Free Reserves and Surplus*			
c)	Misc expenses to the extent not written off			
	Net Worth (a+b-c)			
2.	Annual Turnover **			

* Free Reserve and Surplus shall be Exclusive of Revaluation Reserve, written back of Depreciation Provision and Amalgamation.

** Annual total Income/ turnover as incorporated in the Profit and Loss Account excluding non-recurring income, i.e., sale of fixed asset etc.

It is certified that all the figures are based on audited accounts read with auditor's report and Notes to Accounts etc.

(Signature & Seal of Authorized Signatory for	(Signature & Seal of Practicing Chartered
which POA attached)	Account)
Name of Authorized Signatory:	Certifying Chartered Accountant:
Designation:	Name of Firm:
Date:	UDIN No:
Place:	Date:
	Place:

Note:

- 1. In addition to above certificate from Chartered Accountant, Bidder is required to submit firm's annual audited Balance sheet and Profit & Loss statement for last 3 years till FY21.
- 2. In case of JV, the form shall also be signed by respective entity's authorized signatory along with Authorized Signatory for which POA is attached.

M.13. Declaration for Compliance with the Code of integrity and No Conflict of Interest

(In Compliance to RTPP Act 2012 & RTPP Rules 2013)

(On Letterhead of Bidder giving said declaration)

(In Case of JV, the following format is to be provided by Each Member of the Joint Venture on their respective letterhead, signed by respective authorized Signatory along with Authorized Signatory for which POA is attached with Bid)

То

Superintending Engineer (Regulation)

Room No. 149, Old Power House Premises, Banipark, Jaipur-302016

Sub: Bid towards RFP for work of Survey, Design, development, supply, testing, installation and commissioning for virtual feeder segregation of 11kV feeders using Industrial Internet of Things (IIOT) Based Device on existing Agriculture Distribution Transformers supplying power to agriculture consumers with O&M for 5 years and development & integration of online portal with billing system for complete Remote Monitoring and Control, under NIT No:

Ref: NIT NO: dated

We hereby declare that we are in complete compliance of with the Code of integrity and No Conflict of interest as per Rajasthan Transparency in Public Procurement Act 2012 (RTPP Act 2012) & Rajasthan Transparency in Public Procurement Rules 2013 (RTPP Rules 2013), including any amendments issued thereafter.

A. Rule 80. Code of integrity:

- (1) All the officers or employees of the procuring entity shall:
 - (a) Maintain an unimpeachable standard of integrity both inside and outside their office;
 - (b) act in accordance with the provisions of the Act, these rules, guidelines issued under the Act and instructions;
 - (c) Not allow any bidders to have access to information on a particular procurement, before such information is available to the public at large;
 - (d) Not intentionally use unnecessarily restrictive or "tailored" specifications, terms of reference or statements of work that can discourage competition;
 - (e) not solicit or accept any bribe, reward or gift or any material benefit of any directly or indirectly promise of future employment from anyone, who has sought or is seeking procurement from the procuring entity;
 - (f) not have a financial interest in any bidder(s) responding to a procuring entity's bidding process and any person having financial interest in any bidder shall not participate in that procurement process;

- (g) Not disclose proprietary and source selection information, directly or indirectly, to any person other than a person authorized to receive such information;
- (h) Treat all bidders in a fair and equitable manner in line with the principle of fairness, integrity and transparency in the procurement process;
- (i) provide all bidders identical information at the same time, during the bidding process;
- (j) apply the same criteria of evaluation as specified in the bidding documents, bidder registration documents or pre-qualification documents and under no circumstances new evaluation criteria shall be introduced during the evaluation process;
- (k) Not entertain any favour, recreation, presents, services, etc. from the bidders or prospective bidders;
- (I) Protect the interests of the procuring entity under all circumstances while dealing with information and information sources;
- (m) Maintain confidentially of all bids;
- (n) Ensure that the selection of bidder is as per the bidding documents and is not influenced by personal reasons attributable to concerned officials in any manner; and
- (o) Disclose conflict of interest, if any.
- (2) Any person participating in procurement process shall,
 - (a) not offer any bribe, reward or gift or any material benefit either directly or in directly in exchange for an unfair advantage in procurement process or to otherwise influence the procurement process;
 - (b) not misrepresent or omit information that misleads or attempts to mislead so as to obtain a financial or other benefit or avoid an obligation;
 - (c) not indulge in any collusion, bid rigging or anticompetitive behavior to impair the transparency, fairness and progress of the procurement process;
 - (d) not misuse any information shared between the procuring entity and the bidders with an intent to gain unfair advantage in the procurement process;
 - (e) not indulge in any coercion including impairing or harming or threatening to do the same, directly or indirectly, to any party or to its property to influence the procurement process;
 - (f) not obstruct any investigation or audit of a procurement process;
 - (g) disclose conflict of interest, if any; and
 - (h) disclose any previous transgressions with any entity in India or any other country during the last three years or any debarment by any other procuring entity.

B. Rule 81. Conflict of interest:

(i) A conflict of interest for procuring entity or its personnel and bidders is considered to be a situation in which a party has interests that could improperly

influence that party's performance of official duties or responsibilities, contractual obligations, or compliance with applicable laws and regulations.

- (j) The situations in which a procuring entity or its personnel may be considered to be in conflict of interest includes, but not limited to, following:
 - i) A conflict of interest occurs when procuring entity's personnel's private interests, such as outside professional or other relationships or personal financial assets, interfere or appear to interfere with the proper performance of its professional functions or obligations as a procurement official.
 - ii) Within the procurement environment, a conflict of interest may arise in connection with such private interests as personal investments and assets, political or other outside activities and affiliations while in the service of the procuring entity, employment after retirement from the procuring entity's service or the receipt of a gift that may place the procuring entity's personnel in a position of obligation.
 - iii) A conflict of interest also includes the use of procuring entity's assets, including human, financial and material assets, or the use of procuring entity's office or knowledge gained from official functions for private gain or to prejudice the position of someone procuring entity's personnel does not favour.
 - iv) A conflict of interest may also arise in situations where procuring entity's personnel is seen to benefit, directly or indirectly, or allow a third party, including family, friends or someone they favour, to benefit from procuring entity's personnel's actions or decisions.
 - v) A Bidder may be considered to be in conflict of interest with one or more parties in a bidding process if, including but not limited to:-
 - they have controlling partners in common;
 - they receive or have received any direct or indirect subsidy from any of them;
 - they have the same legal representative for purposes of the bid;
 - they have a relationship with each other, directly or through common third parties, that puts them in a position to have access to information about or influence on the bid of another;
- (k) A bidder participates in more than one bid in the same bidding process. However, this does not limit the inclusion of the same sub-contractor, not otherwise participating as a bidder, in more than one bid; or
- (I) A bidder or any of its affiliates participated as a consultant in the preparation of the design or technical specifications of the subject matter of procurement of the bidding process. All bidders shall provide in Qualification Criteria and Biding Forms, a statement that the bidder is neither associated nor has been associated directly or indirectly, with the consultant or any other entity that has prepared the design, specifications and other documents for the subject matter of procurement or being proposed as Project Manager for the contract.

C. **Rule 82. Breach of code of integrity by the bidder:** Without prejudice to the provisions of Chapter IV of the Act, in case of breach of any provision of the code of integrity by a bidder or prospective bidder, as the case may be, the procuring entity may take appropriate action in accordance with the provisions of subsection (3) of section 11 and section 46.

(Signature & Seal of Authorized Signatory for which POA attached)

Name of Authorized Signatory:

Designation:

Date:

Place:

M.14. Declaration by the Bidder regarding Qualification (In Compliance to RTPP Act 2012 & RTPP Rules 2013)

(On Letterhead of Bidder giving said declaration)

(In Case of JV the following format is to be provided by Each Member of the Joint Venture)

То

Superintending Engineer (Regulation)

Room No. 149, Old Power House Premises, Banipark, Jaipur-302016

Sub: Bid towards RFP for work of Survey, Design, development, supply, testing, installation and commissioning for virtual feeder segregation of 11kV feeders using <u>Industrial Internet of Things (IIOT) Based Device</u> on existing Agriculture Distribution Transformers supplying power to agriculture consumers with O&M for 5 years and development & integration of online portal with billing system for complete Remote Monitoring and Control, under NIT No:

Ref: NIT NO:, dated......

I/we hereby declare under Section 7 of RTPP Act, 2012, that:

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

(Signature & Seal of Authorized Signatory for which POA attached) Name of Authorized Signatory: Designation: Date: Place:

M.15. Declaration by the Bidder regarding Grievance Redressal during Procurement Process

(In Compliance to RTPP Act 2012 & RTPP Rules 2013)

(On Letterhead of Bidder giving said declaration)

(In Case of JV the following format is to be provided by Each Member of the Joint Venture on their respective letterhead, signed by respective authorized Signatory along with Authorized Signatory for which POA is attached with Bid)

То

Superintending Engineer (Regulation)

Room No. 149, Old Power House Premises, Banipark, Jaipur-302016

Sub: Bid towards RFP for work of Survey, Design, development, supply, testing, installation and commissioning for virtual feeder segregation of 11kV feeders using <u>Industrial Internet of Things (IIOT) Based Device</u> on existing Agriculture Distribution Transformers supplying power to agriculture consumers with O&M for 5 years and development & integration of online portal with billing system for complete Remote Monitoring and Control, under NIT No:

Ref: NIT NO: dated......

We hereby declare that we are in complete agreement with the Grievance Redressal during Procurement process and will follow the same in all respects as per Rajasthan Transparency in Public Procurement Act 2012 (RTPP Act 2012) & Rajasthan Transparency in Public Procurement Rules 2013 (RTPP Rules 2013), including any amendments issued thereafter.

The designation of the First Appellate Authority is Managing Director, Jaipur Vidyut Vitran Nigam Limited ("JVVNL"/ "Jaipur Discom") and the address is the Vidyut Bhawan at Jaipur, Rajasthan. The designation of the Second Appellate Authority is Chairman, Rajasthan Discoms, Jaipur address, Vidyut Bhawan, Near Vidhan Sabha, Jaipur.

A. RTPP Rule 83: Form of Appeal:

- 1. An appeal under sub-section (1) or (4) of section 38 shall be in Form along with as many copies as there are respondents in the appeal.
- 2. Every appeal shall be accompanied by an order appealed against, if any, affidavit verifying the facts stated in the appeal and proof of payment of fee.
- 3. Every appeal may be presented to First Appellate Authority or Second Appellate Authority, as the case may be, in person or through registered post or authorized representative.

B. Rule 84: Fee for filing appeal:

1. Fee for first appeal shall be rupees two thousand five hundred and for second appeal shall be rupees ten thousand, which shall be nonrefundable.
2. The fee shall be paid in the form of bank demand draft or banker's cheque of a Scheduled Bank payable in the name of Appellate Authority concerned.

C. Rule 85: Procedure for disposal of appeal:

- 1. The First Appellate Authority or Second Appellate Authority, as the case may be, upon filing of appeal, shall issue notice accompanied by copy of appeal, affidavit and documents, if any, to the respondents and fix date of hearing.
- 2. On the date fixed for hearing, the First Appellate Authority or Second Appellate Authority, as the case may be, shall:
 - i. hear all the parties to appeal present before him; and
 - ii. peruse or inspect documents, relevant records or copies thereof relating to the matter.
 - iii. After hearing the parties, perusal or inspection of documents and relevant records or copies thereof relating to the matter, the Appellate Authority concerned shall pass an order in writing and provide the copy of order to the parties to appeal free of cost.
 - iv. The order passed under sub-rule (3) shall also be placed on the State Public Procurement Portal.
- D. **Rule 86: Repeal and savings:** All rules, regulations, orders, notifications, departmental codes, manuals, by-laws, official memoranda or circulars relating to procurement of goods, services or works provided for in these rules, which are inforce on the date of commencement of these rules, in relation to the matter covered by these rules are hereby repealed to the extent they are covered by these rules:

Provided that such repeal shall not affect the previous operation of rules, regulations, orders, notifications, departmental codes, manuals, by-laws, official memoranda or circulars, so repealed and the procurement process commenced before the commencement of these rules shall continue as per the provisions of rules, regulations, orders, notifications, departmental codes, manuals, by-laws, official memoranda or circulars, so repealed.

FORM No. 1 [See rule 83]

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

Appeal NoofBefore the (First / Second Appellate Authority)

- 1. Particulars of appellant:
- (i) Name of the appellant:
- (ii) Official address, if any:
- (iii) Residential address:
- 2. Name and address of the respondent(s):

(i)

(ii)

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

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

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

6. Grounds of appeal:

7. Prayer:

Place
Date
Appellant's Signature

(Signature & Seal of Authorized Signatory for which POA attached) Name of Authorized Signatory: Designation: Date:

M.16. Declaration by the Bidder regarding Additional Condition of RFP document/ Contract

(In Compliance to RTPP Act 2012 & RTPP Rules 2013)

(On Letterhead of Bidder giving said declaration) (In Case of JV the following format is to be provided by Each Member of the Joint Venture)

То

Superintending Engineer (Regulation)

Room No. 149, Old Power House Premises, Banipark, Jaipur-302016

Sub: Bid towards RFP for work of Survey, Design, development, supply, testing, installation and commissioning for virtual feeder segregation of 11kV feeders using <u>Industrial Internet of Things (IIOT) Based Device</u> on existing Agriculture Distribution Transformers supplying power to agriculture consumers with O&M for 5 years and development & integration of online portal with billing system for complete Remote Monitoring and Control, under NIT No:

Ref: NIT NO:, dated.....

We hereby declare that we are in complete agreement with the Additional Conditions of RFP document/ Contract and will follow the same in all respects as per Rajasthan Transparency in Public Procurement Act 2012 (RTPP Act 2012) & Rajasthan Transparency in Public Procurement Rules 2013 (RTPP Rules 2013), including any amendments issued thereafter.

Provided that a Financial Bid is substantially responsive, Jaipur Vidyut Vitran Nigam Limited, will correct arithmetical errors during evaluation of Financial Bids on following basis:

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

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

(Signature & Seal of Authorized Signatory for which POA attached) Name of Authorized Signatory: Designation: Date: Place:

M.17. Declaration Regarding Alternative, Deviations and Exceptions to the Provisions

(On Letterhead of Bidder/ Lead Member of JV)

То

Superintending Engineer (Regulation)

Room No. 149, Old Power House Premises, Banipark, Jaipur-302016

Sub: Bid towards RFP for work of Survey, Design, development, supply, testing, installation and commissioning for virtual feeder segregation of 11kV feeders using <u>Industrial Internet of Things (IIOT) Based Device</u> on existing Agriculture Distribution Transformers supplying power to agriculture consumers with O&M for 5 years and development & integration of online portal with billing system for complete Remote Monitoring and Control, under NIT No:

Ref: NIT NO: dated......

Dear Sir,

The bidder shall itemize any deviation from the RFP document included in his bid. Each item shall be listed (separate sheets may be used and enclosed with this Attachment) with the following information:

SI. No.	Reference clause in the RFP document	Deviation	Cost of withdrawal of the deviation
1			
2			
3			

The above deviations and variations are exhaustive. We confirm that we shall withdraw the deviations proposed by us at the cost of withdrawal indicated in this attachment, failing which our bid may be rejected and Bid Security forfeited.

Except for the above deviations and variations, the entire work shall be performed as per your specifications and documents. Further, we agree that any deviations, conditionality or reservation introduced in this Declaration and/or in the Bid submitted, Price schedules & Technical Data Sheets and covering letter, or in any other part of the Bid will be reviewed to conduct a determination of the substantial responsiveness of the Bid.

Signature & Seal of Authorized Signatory for which POA attached
Name of Authorized Signatory:
Designation:
Date:

M.18. Declaration Regarding No Omissions or Inconsistencies or Reservations

(On Letterhead of Bidder/ Lead Member of JV)

То

Superintending Engineer (Regulation)

Room No. 149, Old Power House Premises, Banipark, Jaipur-302016

Sub: Bid towards RFP for work of Survey, Design, development, supply, testing, installation and commissioning for virtual feeder segregation of 11kV feeders using <u>Industrial Internet of Things (IIOT) Based Device</u> on existing Agriculture Distribution Transformers supplying power to agriculture consumers with O&M for 5 years and development & integration of online portal with billing system for complete Remote Monitoring and Control, under NIT No:

Ref: NIT NO: dated......

Dear Sir,

We confirm that Bid submitted by us and have been filled up by us as per the provisions of the RFP document issued vide above-referenced NIT. We have also uploaded price bid electronically as per the provisions of the RFP document. Further, we have noted that the same shall be evaluated as per the provisions of the RFP document.

Further, we hereby confirm that except as mentioned in the Declaration Regarding Alternative, Deviations and Exceptions to the Provisions hereof and/or the Covering Letter, forming part of our Bid:

- (i) There are no discrepancies/inconsistencies and deviations/omissions/ reservations to the RFP document, in the price bid;
- (ii) The description of items and the unit thereof in the price schedules are in conformity with those indicated in the price schedule of the RFP document without any deviation to the specified scope of work.

We also confirm that in case any discrepancies/ inconsistencies and deviations/ omissions/ reservations, as referred to in para (i) and (ii) above, is observed in the online price bid, the same shall be deemed as withdrawn/ rectified without any financial implication, whatsoever to JVVNL. However, in case of any arithmetical errors, the same shall be governed as per the provisions of RFP document Section G.3.

(Signature & Seal of Authorized Signatory for which POA attached)

Name of Authorized Signatory:

Designation:

Date:

M.19. Undertaking for No Blacklisting & No Banning

(On Non-Judicial Stamp Paper of Rs. 100/- attested by Notary Public/ First Class Magistrate) (In case of JV the undertaking is to be provided by each Member of the Joint Venture)

То

Superintending Engineer (Regulation)

Room No. 149, Old Power House Premises, Banipark, Jaipur-302016

Sub: Bid towards RFP for work of Survey, Design, development, supply, testing, installation and commissioning for virtual feeder segregation of 11kV feeders using <u>Industrial Internet of Things (IIOT) Based Device</u> on existing Agriculture Distribution Transformers supplying power to agriculture consumers with O&M for 5 years and development & integration of online portal with billing system for complete Remote Monitoring and Control, under NIT No:

Ref: NIT NO:dated......

I/ We hereby declare that presently our Company/ Limited Liability Partnership/ Partnership Firm/ Sole Proprietorship is not insolvent, not in receivership, not bankrupt or wound up, not have affairs administered by a court or a judicial officer, not have business activities suspended.

I/ We further declare that presently our Company/ Limited Liability Partnership/ Partnership Firm/ Sole Proprietorship is not blacklisted or debarred by any utility/ government agency, and not have a conflict of interest.

If this declaration is found to be incorrect then without prejudice to any other action that may be taken, our security may be forfeited in full and the tender if any to the extent accepted may be cancelled.

(Signature & Seal of Authorized Signatory for which POA attached)

Name of Authorized Signatory:

Designation:

Date:

M.20. Performance / Additional Performance Security Bank Guarantee Format

(On Non judicial Stamp of Rajasthan of worth 0.25% of BG Value (maximum stamp duty of Rs. 25000/-))

Bank Guarantee No.

Date.....

Contract No.....

Contract for work of Survey, Design, development, supply, testing, installation and commissioning for virtual feeder segregation of 11kV feeders using Industrial Internet of Things (IIOT) Based Device on existing Agriculture Distribution Transformers supplying power to agriculture consumers with O&M for 5 years and development & integration of online portal with billing system for complete Remote Monitoring and Control, under NIT No:

То

Superintending Engineer (Regulation)

Room No. 149, Old Power House Premises, Banipark, Jaipur-302016

Dear Sir,

We undertake to make payment under this Letter of Guarantee upon receipt by us of your first written demand signed by JVVNL duly authorized officer or the authorized officer of **JVVNL** declaring the Bidder to be in default under the Contract and without civil or argument any sum or sums within the above-named limits, without your need to prove or

show grounds or reasons for your demand and without the right of the Bidder to dispute or question such demand.

Our liability under this Letter of Guarantee shall be to pay to JVVNL whichever is the lesser of the sum so requested or the amount then guaranteed hereunder in respect of any demand duly made hereunder prior to expiry of the Letter of Guarantee, without being entitled to inquire whether or not this payment is lawfully demanded.

Except for the documents herein specified, no other documents or other action shall be required, notwithstanding any applicable law or regulation.

Our liability under this Letter of Guarantee shall become null and void immediately upon its expiry, whether it is returned or not, and no claim may be made hereunder after such expiry or after the aggregate of the sums paid by us to JVVNL shall equal the sums guaranteed hereunder, whichever is the earlier.

All notices to be given under shall be given by registered (airmail) posts to the addressee at the address herein set out or as otherwise advised by and between the parties hereto.

All disputes arising under the said Guarantee between the Bank and JVVNL or between the Bidder and JVVNL pertaining to the Guarantee shall be subject to the jurisdiction of courts only at Jaipur in Rajasthan alone.

We hereby agree that any part of the Contract may be amended, renewed, extended, modified, compromised, released or discharged by mutual agreement between you and the Bidder, and this security may be exchanged or surrendered without in any way impairing or affecting our liabilities hereunder without notices to us and without the necessity for any additional endorsement, consent or guarantee by us, provided, however, that the sum guaranteed shall not be increased or decreased.

No action, event or condition which by any applicable law shall operate to discharge us from liability hereunder shall have any effect and we hereby waive any right we may have to apply such law so that in all respects our liability hereunder shall be irrevocable and, except as stated herein, unconditional in all respects.

For and on behalf of the Bank

[Signature of the authorised signatory(ies)]

Signature	_
Name	
Designation	
POA Number	
Contact Number(s): Tel	Mobile
Fax Number	

email	
Common Seal of the Bank	
<u>Witness:</u>	
Signature	
Name	
Address	
Contact Number(s): Tel email	Mobile

Note:

- 1. For the purpose of executing the Bank Guarantee, the non-judicial stamp papers of appropriate value shall be purchased in the name of Bank who issues the 'Bank Guarantee'.
- 2. The Bank Guarantee shall be signed on all the pages by the Bank Authorities indicating their POA nos. and shall invariably be witnessed.
- 3. The Bank Guarantee shall be in accordance with the proforma as provided. However, in case the issuing bank insists for additional paragraph for limitation of liability, the following may be added at the end of the proforma of the Bank Guarantee [*i.e., end paragraph of the Bank Guarantee preceding the signature(s) of the issuing authority(ies) of the Bank Guarantee*]:

<u>Quote</u>

"Notwithstanding anything contained herein:

- 2. This Bank Guarantee shall be valid upto _____ (validity date)_____.
- 3. We are liable to pay the guaranteed amount or any part thereof under this Bank Guarantee only & only if we receive a written claim or demand on or before ______ (validity date) ______."

<u>Unquote</u>

M.21. Bank Guarantee Format (Mobilization Advance)

(On Non judicial Stamp of Rajasthan of worth 0.25% of BG Value (maximum stamp duty of Rs. 25000/-)

Bank Guarantee No. Contract No..... Date.....

.....[Name of Contract].....

To Concerned Discom Official Concerned Discom & Address

Dear Sir,

Or

(Select Option accordingly as applicable)

We refer to the Letter of Intent ("LOI") <Insert LOI No:>, issued on <Insert Date of Issue of LOI by Discom.....> byVidyut Vitran Nigam Limited (hereinafter referred to as "...VVNL"), having its Registered Office at (Rajasthan), to M/s (Name of Successful Bidder), having its Principal place of business at Successful(Registered address of Bidder) ("the Successful Bidder") and M/s, (Name of Associate), having its Principal place of business at(Address of Associate) and Registered Office at address Associate)(Registered of, the Associate of the Successful Bidder, "Work of Survey, Design, development, supply, testing, installation and

commissioning for virtual feeder segregation of 11kV feeders using Industrial Internet of

Things (IIOT) Based Device on existing Agriculture Distribution Transformers supplying power to agriculture consumers with O&M for 5 years and development & integration of online portal with billing system for complete Remote Monitoring and Control, under NIT No: on turnkey basis, and the LOI having been accepted by the selected Successful Bidder vide <.....Insert Letter No....>, resulting in Letter of Award to be issued and Contract Agreement to be entered into. [Applicable for Bank Guarantees to be issued by Successful Bidder against those Contracts awarded to their Associate]

We undertake to make payment under this Letter of Guarantee upon receipt by us of your first written demand signed by the Discom duly authorized officer or the authorized officer of **Discom** declaring the Successful Bidder to be in default under the Contract and without civil or argument any sum or sums within the above named limits, without your need to prove or show grounds or reasons for your demand and without the right of the Successful Bidder to dispute or question such demand.

Our liability under this Letter of Guarantee shall be to pay to the Discom whichever is the lesser of the sum so requested or the amount then guaranteed hereunder in respect of any demand duly made hereunder prior to expiry of the Letter of Guarantee, without being entitled to inquire whether or not this payment is lawfully demanded.

Except for the documents herein specified, no other documents or other action shall be required, notwithstanding any applicable law or regulation.

Our liability under this Letter of Guarantee shall become null and void immediately upon its expiry, whether it is returned or not, and no claim may be made hereunder after such expiry or after the aggregate of the sums paid by us to the Discom shall equal the sums guaranteed hereunder, whichever is the earlier.

All notices to be given under shall be given by registered (airmail) posts to the addressee at the address herein set out or as otherwise advised by and between the parties hereto.

All disputes arising under the said Guarantee between the Bank and the Discom or between the Successful Bidder and the Discom pertaining to the Guarantee shall be subject to the jurisdiction of courts only at (Jaipur) in Rajasthan alone.

We hereby agree that any part of the Contract may be amended, renewed, extended, modified, compromised, released or discharged by mutual agreement between you and the Successful Bidder, and this security may be exchanged or surrendered without in any way impairing or affecting our liabilities hereunder without notices to us and without the

necessity for any additional endorsement, consent or guarantee by us, provided, however, that the sum guaranteed shall not be increased or decreased.

No action, event or condition which by any applicable law shall operate to discharge us from liability hereunder shall have any effect and we hereby waive any right we may have to apply such law so that in all respects our liability hereunder shall be irrevocable and, except as stated herein, unconditional in all respects.

For and on behalf of the Bank

[Signature of the authorised signal	atory(ies)]	
Signature		
Name		
Designation		
POA Number		
Contact Number(s): Tel		
Fax Number		
email		
Common Seal of the Bank		
Witness:		
Signature		
Name		
Address		
Contact Number(s): Tel		
email		

Note:

- 1. For the purpose of executing the Bank Guarantee, the non-judicial stamp papers of appropriate value shall be purchased in the name of Bank who issues the 'Bank Guarantee'.
- 2. The Bank Guarantee shall be signed on all the pages by the Bank Authorities indicating their POA nos. and shall invariably be witnessed.
- 3. The Bank Guarantee shall be in accordance with the proforma as provided. However, in case the issuing bank insists for additional paragraph for limitation of liability, the following may be added at the end of the proforma of the Bank Guarantee [*i.e., end paragraph of the Bank Guarantee preceding the signature(s) of the issuing authority(ies) of the Bank Guarantee*]:

<u>Quote</u>

"Notwithstanding anything contained herein:

- 1. Our liability under this Bank Guarantee shall not exceed ______ (value in figures)______ [_______(value in words)______].
- 2. This Bank Guarantee shall be valid upto ______ (validity date)______.

 We are liable to pay the guaranteed amount or any part thereof under this Bank Guarantee only & only if we receive a written claim or demand on or before _______.
(validity date) ______."

<u>Unquote</u>

M.22. Indicative Price Bid Format

Validate Print Help

Item Rate BoQ

Tender Inviting Authority: Superintending Engineer (Regulation), Jaipur Vidyut Vitran Nigam Limited (JVVNL)

Name of Work: Survey, Design, development, supply, testing, installation and commissioning for virtual feeder segregation of 11kV feeders using Industrial Internet of Things (IIOT) based Device on existing Agriculture Distribution Transformers supplying power to agriculture consumers with O&M for 5 years and development & integration of online portal with billing system for complete Remote Monitoring and Control Contract No: JVVNL/SE(REGULATION)/XEN(DSM)/VFS/TN-.....

Name of the Bidder/ Bidding Firm / Company : PRICE SCHEDULE (This BOQ template must not be modified/replaced by the bidder and the same should be uplo ent columns, else the bidder is liable to be rejected for this tender. Bidders are allowed to enter the aded af der Name and Values only) Quantity Units Total unit Rate per system Total unit GST TOTAL AMOUNT TOTAL AMOUNT SI. Type of Required SPV Systems as per Total unit Rate per TOTAL AMOUNT system (including all costs, applicable duties, Taxes and specifications and requirement of tender document (including all costs, plicable duties & Taxes No. Rate per (excluding GST) (including GST) system appli EXCLUDING GST) col (8) = (3) x (5) col (9) = (3) x (7) (@18%) GST) col (6) = col (5) To be entered In Figures (INR) (INR) col (7) = col (5) + col (6) x 18% by the Bidder (INR) (INR) (INR) 1 4 IIOT Based solution for 3 phase Distribution Transformer Type 1: 10 kVA to 25 kVA (for 3 phase agriculture 1 to 25 kVA (for 3 phase agriculture consumers upto 60A load) having: 0.00 INR Zero Only 1.01 1 no. Ag Connection per DT 1849 Nos 0.00 0.00 0.00 255 0.00 0.00 0.00 INR Zero Only 1.02 2 nos. Ag Connections per DT Nos 0.00 1.03 3 nos. Ag Connections per DT 2 Nos 0.00 0.00 0.00 0.00 INR Zero Only 0.00 0.00 0.00 0.00 INR Zero Only 1.04 4 nos. Ag Connections per DT 1 Nos IIOT Based solution for 3 phase Distribution Transformer Type 2: 40 kVA to 63 kVA (for 3 phase agriculture 2 consumers upto 100A load) having: 0.00 0.00 INR Zero Only 2.01 1 no. Ag Connection per DT 39 Nos 0.00 0.00 2.02 80 0.00 0.00 0.00 0.00 INR Zero Only 2 nos. Ag Connections per DT Nos 2.03 3 nos. Ag Connections per DT 20 Nos 0.00 0.00 0.00 0.00 INR Zero Only 2.04 0.00 0.00 0.00 0.00 INR Zero Only 4 nos. Ag Connections per DT 8 Nos 2.05 5 nos. Ag Connections per DT 10 Nos 0.00 0.00 0.00 0.00 INR Zero Only 4 2.06 6 nos. Ag Connections per DT Nos 0.00 0.00 0.00 0.00 INR Zero Only 2.07 7 nos. Ag Connections per DT 4 Nos 0.00 0.00 0.00 0.00 INR Zero Only 2.08 8 nos. Ag Connections per DT 1 Nos 0.00 0.00 0.00 0.00 INR Zero Only 0.00 0.00 0.00 INR Zero Only 2.09 1 Nos 0.00 9 nos. Aq Connections per DT IIOT Based solution for 3 phase Distribution Transformer Type 3: 100 3 kVA to 160 kVA (for 3 phase agriculture consumers upto 100A load) having: 3.01 0 Nos 0.00 0.00 0.00 0.00 INR Zero Only 1 no. Ag Connection per DT 3.02 2 nos. Ag Connections per DT 0.00 0.00 0.00 0.00 INR Zero Only 3 Nos 3.03 3 nos. Ag Connections per DT 0 Nos 0.00 0.00 0.00 0.00 INR Zero Only 3.04 4 nos. Ag Connections per DT 0 Nos 0.00 0.00 0.00 0.00 INR Zero Only 3.05 5 nos. Ag Connections per DT 2 Nos 0.00 0.00 0.00 0.00 INR Zero Only 0.00 0.00 INR Zero Only 3.06 6 nos. Ag Connections per DT 3 Nos 0.00 0.00 3.07 8 nos. Ag Connections per DT 0.00 0.00 0.00 INR Zero Only 1 Nos 0.00 Total in Figures 0.00 INR Zero Only 0.00 Quoted Rate in Words INR Zero Only

M.23. Contract Agreement Format

(To be executed on Non-judicial Stamp paper of Rajasthan State of worth 0.25% of Contract Value)

THIS AGREEMENT made on this day of Two thousand BETWEEN

{In case of single bidder}

{In case of Joint Venture}

AND

AND WHEREAS THE SUCCESSFUL BIDDER has accepted the Tender Document for the supply for the total sum of Rs. ______ (Rupees ______ only) *including / excluding taxes upon the terms and subject to the conditions herein mentioned in the agreement.

AND WHEREAS, a list is made out in the "**SCHEDULE**" hereunder written and all of which said documents of the Schedule are deemed to form part of this agreement and included in the expression "**the Scope of Work**" wherever herein used, upon the terms and subject to the conditions hereinafter mentioned.

NOW THIS AGREEMENT WITNESSES AS UNDER AND IT IS HEREBY AGREED AND DECLARED THAT:

- 1. The Successful Bidder has accepted the Terms and Conditions set out in the Tender Document issued vide NIT No.dated...... as well as in the form of
 - a. Acceptance of Tender Document and Letter of Acceptance of Tender Document No..... dtd. which will hold good & valid during the period of this Agreement.
 - b. Acceptance of Letter of Intent and Letter of Acceptance of Letter of Intent No...... dtd. which will hold good & valid during the period of this Agreement.
 - c. Acceptance of Work Order and Letter of Acceptance of Work Order No...... dtd. which will hold good & valid during the period of this Agreement.
- 2. The Successful Bidder shall do and perform for all Scope of Work mentioned and described in this agreement or which are implied therein or therefrom respectively or are reasonably necessary for the in-time and in manner supplies as mentioned and subject to the general/ commercial terms & conditions and stipulations contained in this agreement.
- 3. In consideration of the due provision, executions, completion of the Scope of Work, as agreed to by the Successful Bidder as aforesaid, the Discom hereby agrees to pay all the sums of money as and when they become due and payable to the Successful Bidder under the provisions of the agreement and such payment to be made at such times and in such manner as provided in the agreement.

Contract Price

Discom hereby agrees to pay to the Successful Bidder the Contract Price in consideration of the performance by the Successful Bidder of its obligations under

Scope of Work pursuant to Tender Document. The Contract Price shall be the aggregate of...... (Amount in words)..... (Amount in figures) (Amount in figures)), or such other sums as may be determined in accordance with the terms and conditions of the Contract.

- 5. Upon breach by the Successful Bidder of any of the conditions of this Agreement, the Discom may give a notice in writing to rescind, determine and put to an end to the Contract without prejudice to the right of the Discom to claim damages for antecedent breaches thereof on the part of the Successful Bidder and also to claim reasonable compensation/ risk & cost purchase for the loss occasioned by the Discom due to failure of the Successful Bidder to fulfill the terms & conditions of Tender Document as certified in writing by the Discom for which Certificate shall be conclusive evidence of the amount of such compensation payable by the Successful Bidder to the Discom.
- 6. The Discom shall not be bound to take the whole or any part of the ordered quantity herein or therein mentioned in the Work Order/ Tender Document and may cancel the contract at any time after giving ONE MONTH'S NOTICE IN WRITING without compensating the Successful Bidder.
- 7. This Contract shall remain in force till the expiry of satisfactory performance of the Successful Bidder as per the Scope of Work required pursuant to the Tender Document during Guarantee period including for the quantity mentioned in the repeat order, if any as per the terms & conditions of the Work Order/ Tender Document.
- 8. Any Notice in connection with the Scope of Work including the Notice for termination may be given by the Discom or any Authorized Officer of Discom for the said purpose as per the Commercial Terms & Conditions of the Work Order/ Tender Document.
- 9. If subject to the circumstances beyond control i.e., Force Majeure conditions, the Successful Bidder fails to deliver the Scope of Work, the same shall be governed as per the Tender Document.
- 10. {Insert in case of JV}, Joint venture Partners including Lead Member declare and confirm that the Partners in Joint Venture shall jointly and severally be bound unto the Discom for the successful performance of the Contract and shall be fully responsible for the delivery of required Scope of Work pursuant to the Tender Conditions.
- 11. The agreed value, extent of supply, delivery dates, specifications, and other relevant matters may be altered by mutual agreement as per the policy of the Discom and if so altered shall not be deemed or construed to mean or apply to affect or alter other general/ commercial terms & conditions of the Contract and the Contract so altered or revised shall be and shall always be deemed to have been adhered subject to and

without prejudice to said stipulation. The following is the Schedule forming part of this agreement as provided herein above:

SCHEDULE

List of documents:

1.	
2.	
3.	
4.	
5.	
Signed by for and	Signed by for and
on behalf of the Discom	on behalf of the Successful Bidder
Signature	Signature
Title	Title

in the presence of

in the presence of

(The Authorized Signatory on behalf of Successful Bidder shall submit the Power of Attorney on behalf of Successful Bidder (also in case of JV) as per applicable Laws.)

M.24. Installation Certificate

GST No:	M/s	Phone No:
	Address:	Fax No:
	(Name and Address of Successful bidder)	E-mail

INSTALLATION CERTIFICATE

Date of Installation:

Payment claim Note No:

S. No.	Details
1.	DT Location
2.	DT Capacity (in kVA)
3.	11kV feeder name
4.	33/11kV substation name
5.	Subdivision name
6.	Division name
7.	Circle name
8.	Discom name
9.	No. of connected agriculture consumers on DT
10.	Landmark near DT
11.	Site Co-ordinate (Longitude / Latitude)

Certified thatkVA Distribution Transformer vide above mentioned details has been retrofitted with IIoT based device towards virtual feeder segregation by M/sunder Work Order No:...... Dated:..... has been and the system has been handed over to the Discom in good working condition.

The details of material supplied and installed are as under :

S.No.	Item:	Quantity	Make	Serial Numbers.
1.				
2.				

Signature of and on behalf of Successful bidder

Name of Authorized Signatory Name of Successful bidder Seal of Successful bidder Date Place Signature of concerned Engineer-in-Charge

Name Name of Discom Seal of Discom Date Place

M.25. Payment Claim Note

Payment Claim Note No:

Date:

Τo,

Discom Ordering Authority:

Name of Discom:

Address:

Details of DTs are as under:

S. No.	Name of Circle	Name of Division	Name of subdivision	Name of 33/11kV substation	Name of 11kV feeder	No. of DTs with capacity	Payment claim amount
						Total	

Signature for and on behalf of Successful bidder

Name of Authorized Signatory

Name of Successful bidder

Seal of Successful bidder

Date