



**E-TENDER SPECIFICATION NO. 61/EUDC-I/2023-24/NOIDA (WORKS)**

**ELECTRICITY URBAN DISTRIBUTION CIRCLE-I, 33/11KV SUB-STATION, SECTOR-18, NOIDA**

**E-Tender Document's Cost deposited**

**R.No.....**  
**for Rs.....Dated:.....**

**A.A.O./D.A.**

**From : M/S ..... ..**

To,

The Superintending Engineer,  
Electricity Urban Distribution Circle-I,  
33/11KV Sub-station, Sectpr-18 Ist Floor,  
Opposite Sab Mall, NOIDA.

**Subject: E-Tender for Electricity Urban Distribution Circle-I, Noida against E-Tender  
Specification No.....**

Sir,

With reference to your invitation of E-Tender for the above. I/we hereby offer to the Paschimanchal Vidyut Vitran Nigam Ltd., the items mentioned in E-Tender Form (Part-I) in strict accordance with the annexed conditions of contract Form "A/B", Specifications and Schedule of Rates (Part-II) to the satisfaction of the purchaser or in default thereof agree for forfeiture of Sum of money (EMD) along with further actions mentioned in said conditions of tender to P.V.V.N.L. The detailed particulars are as below.

I/We agree to abide by this tender for the period till finalization of agreement.

A sum of Rs.....(Rupees ..... ) as earnest money is hereby enclosed as detailed below in favor of desired authority and full value of which shall be retained by P.V.V.N.L. against the condition of contract.

This offer shall remain valid for 180 (One Hundred and Eighty) days from the date of tender opening.

**Details of requisite E/M enclosed in the form of**

.....  
.....

Yours faithfully,

**(Signature of Tenderer with seal)**

**(TO BE SUBMITTED IN DOUBLE SEALED COVER)**

**Date & time of acceptance of E-Tender : .....**  
**Date & time of opening of E-Tender : .....**

From : M/s.....

To,

The Superintending Engineer,  
Electricity Urban Distribution Circle-I,  
33/11KV Sub-station, Sectpr-18 Ist Floor,  
Opposite Sab Mall, NOIDA.

Subject: E-Tender for the supply/ work of .....

Dear Sir,

With reference to your E-Tender Specification No.....for the supply/ work of ..... I/we hereby submit my/ our offer in accordance with the annexed terms and conditions, Specification to your satisfaction with the following details:-

1. Acceptance of General Terms & conditions and specification on the form enclosed and signed by me/ us.
2. I/we agree to binding myself/ our self that in the event of the supply/ work being awarded to me/ us, if I/we fail to execute the same, my/ our Earnest Money will stand forfeited.
3. I/we agree to abide by this by this tender for a period of 180 days for finalization and further for a period of as mentioned in Terms & conditions for execution of work/ supply in accordance with the conditions of contract.
4. I/we have been fully understood the work being tendered. I/we have previous experience of doing similar work. Details of the same are enclosed in proof of my/ our statement.
5. I/we also agree to commence the supply/ work within the period as mentioned in your Terms & conditions from the date of contract awarded to me/ us or am/ are authorized by you in writing for taking up the same pending formal execution of contract.
6. In case of any dispute I/we agree to abide by the decision of Superintending Engineer, Electricity Urban Distribution Circle-I, Noida /M.D., PVVNL, Meerut (as the case may be) which shall be final and binding on me/ us and where the Chairman, UPPCL, nominates an arbitrator for adjudication of differences of disputes in case of refusal/ neglect by such nominee, Chairman, UPPCL may nominate another person in his place.
7. I/we also agree that all disputes arising out or and touching or relating the subject matter of this tender, if go to the court of law shall be subject to the jurisdiction of local court of GB Nagar and High Court to the judicature at Allahabad only.

Yours Faithfully,

**SIGNATURE OF THE TENDERER**  
**WITH SEAL**

## **DECLARATION**

E-Tender invited by : The Superintending Engineer,  
Electricity Urban Distribution Circle-I,  
33/11KV Sub-station, Sectpr-18 Ist Floor,  
Opposite Sab Mall, NOIDA.

E-Tender for (Name of work/ supply) : .....  
.....  
.....

E-Tender Specification No. : .....

Name of Tenderer : .....

IN CONSIDERATION OF THE PVVNL having treated the tenderer to be an eligible person whose tender may be considered, the tenderer hereby agree to the conditions that the proposal in response to the above invitation shall not be withdrawn within 180 days from the date of opening of the e-tender, also to the conditions that if thereafter the tenderer does withdraw his proposal within the said period, the Earnest Money deposited by him may be forfeited to the PVVNL in the discretion of the letter.

**Signed this.....day of.....**

**SIGNATURE OF THE TENDERER  
WITH SEAL**

**PASCHIMANCHAL VIDYUT VITRAN NIGAM LTD.**  
**Electricity Urban Distribution Circle-I, Sector-18, Noida**  
**PART-I (A)**

**E-Tender Specn.. No...../EUDC-I/2023-24/Noida**

**Dt. of Acceptance :..... time..... Hrs.**  
**Due of Opening Dt .....time ..... Hrs.**

Dear Sir,

With reference to your invitation of tenders against above specifications, I/we hereby offer to the Paschimanchal Vidyut Vitran Nigam Ltd to supply the items/ executive the work mentioned in tender specifications in strict accordance with the annexed conditions of contract from “A/B”, commercial/ technical specifications (Bid Part-I) and schedule of rates (Bid Part-II) to the satisfaction of the purchaser. The detail particulars are as below :-

1. Name of Tenderer :
2. Address Office/Shop/Workshop :
  - (a) Phone No.
  - (b) Fax
  - (c) Email address
  - (d) Residence (With Tel No.)
3. Income Tax PAN No. :
4. GST No. :
5. Period of earlier experience for such type of job. :  
(Attach photo copies of supporting documents).
6. Performance Certificates :  
(Attach photo copies of supporting documents).
7. Validity of Proposal Rates :
8. Whether prices are applicable for reduced quantity : Yes / No / N.A.

Issued by :

**S.E.**  
**E.U.D.C.-I,**  
**NOIDA**

**(Signature of Tenderer & Seal)**

**PRE QUALIFYING CONDITIONS OF THE TENDERERS AGAINST E-TENDER NO. 61/EUDC-I/2023-24/NOIDA (WORKS).**

The bidders have to fulfill following minimum conditions of experience and financial competence in order to qualify for consideration this tender:

फर्म/टेकेदार को निविदा के भाग-प्रथम में निम्नलिखित प्रपत्र Upload कराने आवश्यक होंगे अन्यथा उसका भाग-द्वितीय नहीं खोला जायेगा।

Sl. No.	PARTICULARS	INFORMATION
1	TECHNICAL CAPABILITY	<p>1.1- The Bidder should have a “Class-A” Electrical License Contractor having validity till March, 2024, issued by Electricity Safety Directorate of UP. License must be uploaded.</p> <p>1.2- The bidder should have successfully completed the turnkey/semi-turnkey work of the following nature in the last three financial year as prime contractor from the date of opening of bid part-1 in Government / Semi-Government / PSU Unit. Agreement with satisfactory work completion / Experience Certificate is to be compulsory to upload issued by the Tender Inviting Authority / Work Executed Authority -</p> <p>(a) Bidder Should have successfully erected and commissioned similar or higher rating work in a single turnkey/semi turnkey order, having minimum order value of 80% (Rs. 188.00 Lacs) of the estimated cost of the present tender specification,</p> <p style="text-align: center;">Or</p> <p>(b) Bidder Should have successfully erected and commissioned similar or higher rating work in a single turnkey/semi turnkey order, having minimum order value of 50% (Rs. 117.50 Lacs) of the estimated cost of the present tender specification,</p> <p style="text-align: center;">Or</p> <p>(c) Bidder Should have successfully erected and commissioned similar or higher rating work in a single turnkey/semi turnkey order, having minimum order value of 40% (Rs. 94.00 Lacs) of the estimated cost of the present tenderspecification,</p>
2	FINANCIAL CAPABILITY	<p>2.1.i- <b><u>The Minimum Annual Average Turnover (MAAT)</u></b> The bidder should have a minimum average annual turnover (MAAT) of Rs. 352.50 Lakh (150% of Estimated Value) for the best three financial years out of the last five financial years. The audited balance sheet / CA's certificate with UDIN Number shall be uploaded in support of above failing which the bid shall not be considered.</p> <p>2.1.ii- <b><u>Net worth</u></b> of the bidder should be positive. Net worth means the sum total of the paid up capital and free reserves (excluding reserves created out of revaluation) reduced by aggregate value of accumulated losses (including debit balance in profit and loss account for current year) and intangible assets with UDIN Number shall be uploaded in support of above failing which the bid shall not be considered. Certificate of Net worth should be upload.</p> <p>2.1.iii- <b><u>Solvency:-</u></b> The bidder should have a minimum solvency of Rs. 58.75 Lakh (25% of Estimated Value) or credit facility for the same from Nationalized/ scheduled bank. Certificate of Solvency should be upload.</p> <p>2.2- The bidder shall to annex character certificate from the District Magistrate along with the Techno Commercial part of the bid document, issued within 3 months from the date of bid opening. (Certificate should be uploaded)</p> <p>2.3- The bidder should not be black listed / debarred from business in any Govt. / Semi Government / PSU / Local Bodies etc. at the time of bid opening. They have to submit an undertaking on Rs. 10.00 non-judicial stamp paper with notary with date regarding this along with the bid. (Certificate should be uploaded)</p>
3	Payment	Payment will be done after complete execution of work/ entire project & submission of executed estimate and after getting satisfactory report in all respect from concern SDO/JE.
4	Other Documents	<p>1. फर्म का वैध जी0एस0टी0 पंजीकरण का स्थायी प्रमाण-पत्र।</p> <p>2. फर्म के स्वामी का पैनकाड एवं आधारकार्ड की छायाप्रति।</p>

5	<b>Times of Completion:</b>	90 Days from the date of Agreement / L.OI.
6	<b>Warranty Period:</b>	60 (Twelve) month (Removing period of defective work).
7	<b>P.B.G.</b>	The Contractor shall have to deposit a security Amount @ 10% of the value of Awarded Contract in the form of FDR/PBG pledged in favor of EE EUDD-V NOIDA at the time of agreement/before the agreement validity of Security amount shall be 18 Month. Security Money shall be returned/refunded after work completion and NOC issued by the concerned division.
8	<b>Earnest Money and Tender Fee</b>	<b>The Bidder has to be Deposited Earnest Money Rs. 2,35,000.00 and E-Tender Fee Rs. 5000+900=5900.00 (With GST) through RTGS in A/c of EE, EUDD-V, Noida of Axis Bank, Sector-18, Noida Account No. 916020026677998, IFSC Code – UTIB0000361 and pay-in slip, confirmation mail copy should be attached with the first Part through Online while filling the Tender Document.</b>

नोट:- ई-निविदा से सम्बन्धित समस्त प्रपत्र/अभिलेख प्रथम भाग के साथ ई-टेंडर पोर्टल के माध्यम से ऑन लाईन ही प्राप्त किये जाएंगे, अपलोड किये गये प्रपत्र साफ एवं पठनीय योग्य होने चाहिए अन्यथा प्रपत्र को निरस्त कर दिया जायेगा। कोई भी प्रपत्र/अभिलेख मण्डल कार्यालय में अलग से स्वीकार्य नहीं होगा तथा अधोहस्ताक्षरकर्ता द्वारा ई-निविदा में अपलोड किये गये अभिलेखों को आवश्यकतानुसार मूल अभिलेखों से सत्यापन किया जायेगा। अभिलेखों में भिन्नता/निविदा के प्रथम भाग में अपलोड नहीं कराने पर निविदा आमंत्रित करने वाले अधिकारी को निविदादाता की निविदा को बिना किसी कारण बताये निरस्त करने का पूर्ण अधिकार होगा।

**Signature of E-Tenderer with seal**

**TERMS & CONDITIONS AGAINST E-TENDER NO. 61/EUDC-I/2023-24/NOIDA (WORKS) FOR CARRYING OUT THE 04 NOS. WORK INSTALLATION OF RMUs IN ALL FEEDERS OF S/S SECTOR-20, 25, 46 & 47 NOIDA AREA SECTOR-12, 20, 21, 25, 26, 46, 47 & 48 NOIDA IN THE AREA OF EUDSD-III/VIII/IX, NOIDA UNDER EUDD-V, NOIDA IN THE JURISDICTION OF EUDC-I, NOIDA (SYSTEM STRENGTHENING WORKS IN MUNICIPAL AREA INCLUDING NOIDA RS. 72.00 CRORE FOR NOIDA ZONE).**

**Special Conditions of the Specification**

नोट –

1. संदर्भित निविदा के अन्तर्गत प्रस्तावित कार्य टर्नकी आधार पर कराया जायेगा।
2. संदर्भित निविदा के अन्तर्गत आवश्यकतानुसार पावर परिवर्तक, वितरण परिवर्तक, 33 केवी एवं 11 केवी वीसीबी, कन्ट्रोल पैनल, 33 केवी सीटी/पीटी, एसीएसआर कण्डक्टर (डॉग/वीजल/रेबिट), विभिन्न साईज की एल0टी0 ए.बी. केबिल, 33 केवी व 11 केवी एक्स.एल.पी. ई. केबिल, एल0टी0 एक्स.एल.पी.ई. केबिल, एस0टी0 पोल, पीसीसी पोल, 33 एवं 11 केवी पिन इन्सूलेटर तथा 33 केवी/11 केवी डिस्क इन्सूलेटर मय फिटिंग डिस्कॉम स्टोर से उपलब्ध कराया जायेगा।
3. प्राक्कलनानुसार निविदा के कार्य हेतु क्रमांक 2 पर वर्णित सामग्री के अतिरिक्त अन्य सभी सामग्री निविदादाता द्वारा स्वयं उपलब्ध कराई जायेगी जिससे कार्य ससमय पूर्ण किया जा सकें।
4. निविदादाता द्वारा कार्य को रेस्पो द्वारा निर्धारित विशिष्टीकरण, मानको के अनुरूप ही कराया जायेगा।
5. निविदादाता द्वारा पश्चिमांचल के अनुमोदित वेन्डर से, अनुमोदित जी0टी0पी0 के अनुसार ही सामग्री क्रय की जायेंगी। जिसका निविदादाता द्वारा अधीक्षण अभियन्ता के माध्यम से विभागीय नियमानुसार निरीक्षण/परीक्षण कराया जाना आवश्यक होगा।
6. निविदा के कार्य एलओआई/अनुबन्ध की तिथि से आगामी 3 माह की अवधि में पूर्ण कराया जायेगा।
7. कार्य मात्रा पूर्णतः अनुमानित है, प्राक्कलन/कार्यस्थल की बाध्यता के आधार पर अतिरिक्त कार्य भी जोड़े/घटाये जा सकते हैं। किसी भी कार्य में शून्य से अधिकतम सीमा तक (निविदा धनराशि की सीमा के अन्दर) परिवर्तन किया जा सकता है।
8. कार्य सम्बन्धित खण्ड के स्वीकृत प्राक्कलन के अनुसार किया जायेगा।

**Responsibilities of Contractor:-**

1. The contractor is required to make them fully conversant with the job required and the work shall be executed as per general conditions of the tender specification contract.
2. The contractor shall be supplying, erecting, testing & commissioning of all materials and equipment's not mentioned specifically in the scope of works but required to complete the job in all respect, except excluded specifically for which no extra payment shall be made.
3. The Contractor shall have to arrange all carriage facility including transportation cartages, man power, T&P etc.
4. Any type of NOC (Forest Deptt., Noida/Gr.Noida/Yamuna Authority any other Govt./PSU/Private areas etc.) for the completion of following work will be arranged by the bidder itself only, Department will not be liable for these NOC.
5. The charges for Road cutting, Forest Clearances charges, land lease charges or from any other agency which are required to complete the work shall be paid by the contractor.
6. Tenderer are advised to visit the sites/Areas of divisions before offering their rates.
7. Illumination/Lighting of working site shall be in the scope of contractor. Nothing shall be paid by the PVVNL.
8. Safety of Man & Material shall be ensured by contractor.
9. The contractor shall ensure that the work is carried out as per NGT Norms/Standard and in such a manner that all premises always look Neat & clean, Similarly, the waste disposal is also carried out in totally sealed manner without affecting the Environment.
10. Contractor shall have to deposit a security Amount @ 10% of the value of Awarded Contract in the form of FDR/PBG pledged in favor of EE EUDD-V NOIDA at the time of agreement/before the agreement validity of Security amount shall be 01 Year. Security Money shall be returned/refunded after work completion and NOC issued by the concerned division.

**Taxes:-**

The Bidder all quoted rate should be inclusive GST & all other taxes.



#### **Others Terms & Conditions:-**

1. Any loss or damage to any of the public utilities shall be repaired by the contractor at his own cost.
2. The Contractor shall have to arrange all carriage facility including transportation cartages, man power T&P etc on its own cost.
3. The Contractor shall make adequate Arrangement for proper Handling of Material to avoid any Damage/ Loss/Accident etc of any kind.
4. No T&P will be provided by the department. The Contractor shall arrange all the T&Ps. Equipment's. Welding set, generator set etc. required for carrying out the above work at his own cost.
5. The contractor shall be fully responsible for any loss/thefts/damaged/accidents the material of the departments and accordingly, he shall have to keep adequate watch and ward to avoid any loss/thefts /damages/accidents etc. to the material of the PVVNL.
6. During the period of work in progress, the Contractor shall have to provide lighting arrangement sign board etc or necessary precautionary arrangement so that accident/ damages/ losses to the public/manpower of the contractor/ department etc. are avoided.
7. The contractor shall be fully responsible for any accident/loss to the persons(s) working with/under him and shall have to pay compensation in accordance with the prevailing rules & regulations of Govt/ PVVNL.
8. All the charges on account of damages/losses/thefts etc. involved under the condition laid down above shall be borne by the contractor.
9. Proper skilled staff included Supervisor capable for execution of the above work shall have to be arranged by the contractor. The safety of labour while at work shall be the responsibility of the contractor and any compensation to be paid to them on any account, whatsoever, shall also be responsibility of the contractor UPPCL/ PVVNL shall not be liable for any such compensation etc.
10. The contractor shall have to execute the work within the stipulated time as provided in the order (work-slip) to be issued by the competent authority.
11. All the material will be provided by the Department (PVVNL), except providing by the contractor as per mentioned in rate schedule, cable Jointing Kits, bricks, cement, coarse sand, river sand, brick ballast, stone ballast, all type of clamps, nuts & bolts and other petty items etc. if required for execution of work, which will be arranged by the contractor at his own cost.
12. A Penalty @½% per week for Delay in Execution of work shall be payable by the contractor on the total value of work not done/late done as per work slip. The maximum penalty livable will not, however, exceed 10% of the value of the order not execution.
13. The Proper Shut down will be given as required by the Contractor time to time as per site/system Requirement and Availability by the SDO/JE of the Concern Area.
14. The bills in triplicate duly Pre - receipted with the original work-slip shall be submitted by the Contractor to the Engineer of the Contract for Payment.
15. The work is to be Done by the Contractor under the Direct Supervision of concerned S.D.O (Dist).
16. Depending upon the site conditions, the individual quantity of any item / work may vary up to ±20% but total value of the work shall not ±10% exceed beyond the Agreement Value.
17. All General Conditions of Contract laid down in Form 'A' & Form 'B' of UPSEB/ UPPCL/PVVNL shall also be applicable.
18. GST TDS, Income Tax, Labour Cess & other taxes shall be deducted from the bills of the Contractor as per rules prevailing at the time of payment.
19. If the Contractor Fails to execute the work within the stipulated period, the order placing authority reserve the right to get the work done departmentally or through any other agency. The Excess expenditure, if any, incurred in this connection plus 15% supervision charges shall be debited from the Contractor and it will be recovered from the Security Amount/Running/Pending Bills or through any other credit pending with UPPCL of the Contractor.
20. Not withstanding the agreement executed with the Contractor, the Engineer of the contract always reserves the right to get the work done by department or through any other agency. The Contractor shall have no objection and claims over such work.
21. The Agreement can be terminated by the Engineer of the Contract at any time without any notice in the event of un-satisfactory performance of the Contractor. This is however, without prejudice to the other Terms & Conditions of the Agreement.

22. For any dispute arising out of the Contract, Chief Engineer (Dist.), Noida Zone, Noida. Shall final Authority to Decide the Dispute and his Decision shall be binding on both the Parties.
23. RMUs, Chemical Earthing etc. shall be inspected by the competent committee of PVVNL before supply of material for which an inspection call will be made to competent committee authority P.V.V.N.L. through S.E., E.U.D.C-I, Noida.
24. E.E., E.U.D.D-V, Noida shall be the consignee of all material.
25. The contractor will purchase the material as per approved technical specification / G.T.P.
26. The supplier of the material shall have the experience of supplying the material to PVVNL/ Govt. / PSU utilities.
27. All the work (erection, grouting etc.) will be completed as per RESPO Norms.
28. Videography or Photography of site shall be done by the contractor before start the work and after its completion, cost of which will be borne by the contractor.
29. The firm shall procure the materials from reputed manufactures.
30. All those petty materials not appearing in the prices schedule but are required to complete the work as per Bill of Quantity / Price Schedule, shall have to be arranged by the contractor at his own cost. Similarly any work activity not specifically indicated but is required for systematic execution of job as per Bill of Quantity / Price Schedule, shall also be done by the contractor for which no separate payments shall be made.
31. Payment of work shall be done by E.E., EUDD-V, Noida after complete execution of work/ entire project & submission of executed estimate and after getting satisfactory report in all respect from concern SDO/JE and availability of funds.
32. In case the tenderer quotes impractical rates for the work and does not enter into a contract, action will be taken to confiscate the earnest money of the tenderer and blacklist the firm.
33. The Tender Work will be bifurcated/allotted within Two firms / more than two firms on L-1 quoted rates as required for timely completion the works by the SE EUDC -1, Noida at the time of agreement.
34. As per the requirement of the work, out of the contracted quantity, the work can be done in the work area of any section after the permission of the Superintending Engineer, Electricity Urban Distribution Circle-I, Noida.

**Superintending Engineer**  
**EUDC-I, Noida**

(GUARANTEED TECHNICAL PARTICULARS)

GUARANTEED TECHNICAL PARTICULARS FOR 11KV OUTDOOR RING MAIN UNITS

SCHEDULE OF GUARANTEED PARTICULARS FOR OUTDOOR METAL CLAD RMU		
Sr. No.	Description	Data
1	Manufacture's Name and Country of origin	Manufacture Name: C-sec Technologies Pvt. Ltd. Country of Origin: India
2	Manufacture's Design / Type ref / Model	CSG IK
3	Material used for making the body of the enclosure	RMU Structure - GI Tank - Stainless steel
4	Standards of manufacturing	IEC 62271-200, IEC 62271-100, IEC 62271-102, IEC 62271-103, IEC-60529
5	Whether painting for RMU metal enclosure is done as per high standards	Yes
6	Whether the enclosure is fire resistive, anti-corrosive	Yes, Painted GI sheet is used for enclosure
7	Whether the RMU metal clad is provided with sufficient space for integration of : a) Minimum 2 numbers load break isolators and 1 number Vacuum Circuit Breaker b) Sufficient space for inspection, testing, etc. c) Earthing arrangements d) Terminal output points for future SCADA automation e) Sufficient arrangement for future extension with Load break isolators/Breakers f) Arrangement/provision for motorization of load break isolators/Breakers in future for SCADA automation.	a) Yes b) Yes c) Yes d) Yes e) Yes f) Yes  <b>APPROVED</b> Superintending Engineer (Material Management) P. V. V. N. L., MEERUT "Not Withstanding the aforesaid approval the entire responsibility of correctness and supply of material according to the Specification/Type test report/GTP shall be that of the contractor which is to be checked during inspection."
8	Maximum temperature with stand of enclosure.	50°C
9	Spacing between live part to Earth  Checked by PMA, M/s Wapcos Ltd. MSCL Project.	Spacing between Live part to earth in LBS cable compartment - Phase to earth-71mm (Center line of phase to earth) Phase to phase-111 mm (Center line of phase to phase)  VCB cable compartment - Phase to earth-98mm (Center line of phase to earth) Phase to phase-126 mm (Center line of phase to phase) Insulating boots are provided in Cable compartment.  As per IEC As per IEC
10	Whether the enclosure are designed to withstand the in all weather conditions (Seashore area, chemical industries polluted area)	Yes
11	Period of guarantee of the RMU enclosure	66 months from date of dispatch or 60 months from date of commissioning whichever is earlier.
12	Over all dimension of the RMU enclosure (L*B*H)	As per the attached drawings
13	Gauge of the Material used for fabrication of the RMU Enclosure	2mm/1.6mm/1.5mm

\* GTP should be read with attached drawings.



14	Whether the RMU enclosure is manufactured as per IEC/IS standards to hold SF6 gas without leakage	Yes
15	Whether the RMU enclosure made provision for sensors for temperature compensated pressure measurement in the relevant gas compartment to monitor the pressure of SF6 gas	Yes
16	Whether RMU enclosure is sealed pressure system	Yes
17	Weight of RMU is complete with operating mechanism.	2LBS+1VCB Ext. with aux transformer- 600kg approx. 1LBS CICO with aux transformer -220kg approx. M+2LBS+1VCB Ext. -700kg approx. M+2LBS+3VCB Ext. -1200kg approx.
18	RMUs are provided with necessary take off terminal	Yes, SCADA terminal provided
19	Whether the gas chamber is made of stainless steel/Cast resin tank	Stainless steel

\* CrTP should be read with drawings attached.

\* Degree of Protection:- IP67- tank with high voltage components  
IP54- Flout covers of the mechanism, cable connection covers and outdoor enclosure/risk.

\* RMU must be FRTU & SCADA compatible  
\* RMU must have adequate space for FRTU.

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and



SCHEDULE OF GUARANTEED PARTICULARS FOR DT BREAKER

Sr. No.	Description	DATA
1	Manufacturer's Name and country of origin	Manufacture Name: C-sec Technologies Pvt. Ltd. Country of Origin: India
2	Manufacture's Design / Type ref / Model	11kV, Vacuum Type
3	Material used for making the body of the enclosure	(Tank act as breaker body)
4	Standards of manufacturing	IEC 62271-100
5	Whether the breakers are manufactured as per IEC/IS standards	Yes
6	Maximum temperature with stand of the breakers	As per IEC
7	1) Spacing between live part to Earth inside the breaker 2) Spacing between poles	1) Live part to earth-40 mm (inside SF6 gas tank) 2) Spacing between poles-115 mm (Centre line of phase to phase)
8	Period of guarantee of the breaker	<del>66 months from date of dispatch or 60 months from date of commissioning whichever is earlier</del>
9	Rated Frequency	50 Hz
10	Rated Voltage	11 kV
11	Highest system voltage	12 kV
12	Rated current	630 A
13	Short time current rating with duration	21 kA 3 Sec. <i>8 Internal Arc test - 21 kA for 1 sec.</i>
14	Certificate or report of short circuit type test	Yes
15	Rated operating duty cycle	0-0.3sec-CO-3 min-CO
16	Short circuit breaking current	
	a) Symmetrical	21 kA
	b) Symmetrical at rated voltage	21 kA
	c) Asymmetrical at rated voltage	
	i) Per Phase	21 kA
	ii) Average	21 kA
	d) DC component	≤ 34 %
17	Arcing time (At rated breaking current) in ms.	<15ms
18	Opening time in ms	30-60ms
19	Total break time in milli sec.	
	a) At 10% rated interrupting capacity	30-60 ms
	b) At rated interrupting capacity	30-60 ms
20	Breaking current	
	a) Rated out of phase current	5.25kA
	b) Rated cable charging current	25A
	c) Rated kilometric fault level	400MVA
	d) Rated capacitor breaking current	400A
21	Make time in ms.	30-60 ms
22	Maximum temperature rise over ambient	
	a) Main contacts Terminals	65°C <i>61°C</i>
23	Rated re-striking voltage at 100% and 50 % rated capacity	
	a) Amplitude factor	1.4
	b) Phase factor	1.5
	c) Natural frequency	50Hz
	d) R.R.R.V (Volts/micro sec.)	0.34 kV/μs

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\* GTP should be read with drawings attached.



24	Dry 1 minute power frequency withstand test voltage	
	a) Between line terminal and earth kV RMS	28 kV ✓
	b) Between terminals with breaker contacts open kV RMS	28 kV ✓
25	1.2/50 full wave impulse withstand test voltage	
	a) Between line terminal and earth kVp.	75 kVp
	b) Between terminals with breaker contacts open kVp	75 kVp
26	VCB interrupter make	BEL/Wuharr
27	Contact separation distance	7.5 to 8.5 mm
28	Type of main contacts	Butt
29	Contact pressure	1800±200 N
30	Contact resistance	≤30 μΩ
31	Life of the Interrupter (in numbers of operations)	
32	i) Tripping at rated current	≥10000
	ii) Tripping at maximum fault current.( Allowable maximum 3mm erosion	≥30 (Allowable maximum 3mm erosion)
	iii) Mechanical operations.	≥30000
33	Details of main contacts making contact with the breaking truck with the panel	NA
34	Control circuit voltage AC/DC	DC
35	Whether trip free or not	Yes(trip free)
36	Whether all the interlocks provided	Yes, provided

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\* GTP Should be read with drawings attached ✓

\* Rated Peak withstand current - 52.5 KA

\* No. of mechanical & Remote operations for circuit breaker - 2000 Nos.

\* No. of mechanical/Remote operations for earthing & Ring switches - 1000 Nos

\* No. of closing (making) operations of earth switch - 5 Nos. independent of breaker as per IEC - 60265-1

\* Rated filling level for insulation oil 0.5 bar / AS per IEC 60376

\* Note filling of SF6 gas is required for 30 years.

\* 60 month formine date of Commissioning

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SCHEDULE OF GUARANTEED PARTICULARS FOR LOAD BREAKER ISOLATORS & EARTHING ARRANGEMENTS			
SL. NO.	DESCRIPTION	DATA	
		ISOLATOR	EARTHING SWITCH
1	Name of the Manufacturer & Country of origin	Manufacture Name: C-sec Technologies Pvt. Ltd. Country of Origin: India	
2	Manufacture's Design / Type ref/Model.	630A LBS	ES
3	Material used for making the body of the enclosure	Tank act as an Isolator body	
4	Standards of manufacturing	IEC 62271-103	IEC 62271-102
5	Whether the isolators & earth positions are manufactured as per IEC/IS standards	Yes	Yes
6	Max temperature withstand of the isolators & earth switches	50°C <i>50°C 60°C only</i>	50°C <i>50°C 60°C only</i>
7	1) Spacing between live parts to earth 2) Spacing between fixed & moving contacts in open position	1)- In cable Compartment - 71mm (Centre line of phase to earth) Insulating boots are provided 2)- 89mm (in SF6 environment)	
8	Period of guarantee of the isolators	<del>66 months from date of dispatch</del> or 60 months from date of commissioning <del>whichever is earlier.</del>	
9	Rated Frequency	50Hz	50Hz
10	Rated Voltage	11kV	11kV
11	Highest System voltage	12kV	12kV
12	Rated Current	630A	Not applicable
13	Short Time current rating with duration	21 kA for 3s	21 kA for 3s
14	Certificate or Report of Short Ckt Type Test	Yes	Yes
15	Rated Operating duty cycle	Not applicable for LBS	Not applicable for ES
16	Short Ckt Breaking current	630A	Not applicable
17	Arcing time (At rated breaking current) in ms	<15ms	Not applicable
18	Opening Time ms	<1800ms	Not applicable
19	Whether all the interlocks provided	Yes	Yes
20	Whether Sufficient arrangements are made to operate the isolators through SCADA, also to be ensured for provision of space for accommodation of motor in future	Yes	NA
21	Fault passage indicator 1) Type/ Model 2) Self powered Yes/No 3) Current ratings 4) Fault Current 5) Phase current.	1) CSFPI 2) Yes, inbuilt battery 3) Not applicable 4) LED Indication 5) N/A	N/A

*\* GTP Should be read with drawings attached.*  
*Abhishek*  
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SCHEDULE OF GUARANTEED PARTICULARS FOR CURRENT TRANSFORMERS		
Sr. No.	DESCRIPTION	DATA
1	Name of the Manufacturer & Country of origin	Name of Manufacturer: Nortex/ ADCON/NPT Country of Origin: India
2	Manufacture's Design / Type ref/Model.	Cast Resin LT CT
3	Applicable Standards	IS:16227
4	1) Type of CT 2) Ratio	Resin cast, ring type 100-50A/1-1A ✓ <i>200-100/1-1 Amp</i>
5	Rated primary current	100-50A ✓ <i>200-100 Amp</i>
6	Rated secondary current	1A
7	Rated Frequency	50 Hz ✓
8	Transformation ratio	100-50/1A ✓
9	No of cores	2 ✓
10	Rated burden a) For Core I	2.5 VA
11	Class of insulation	E
12	Class of accuracy for protection	10P10 ✓
13	Short time current rating and its duration	21kA/3sec
14	Secondary resistance at 70 Deg C	<1.0 Ohm
15	Continuous overload (Percentage)	20%
16	One minute power frequency dry withstand voltage	3 kV for 1min
17	1.2/ 50 micro sec. impulse withstand test voltage	Not Applicable
18	One minute power frequency withstand test voltage on secondary	3kV for 1min ✓
19	Instrument Safety Factor	<5.0, for 50/1A & <10.0 for 100/1A
20	Type of primary winding	Cable acts as primary
21	Literature / Leaflet pamphlets about the CT offered	Yes
22	Period of Guarantee	<del>66 months from date of dispatch or 60 months from date of commissioning whichever is earlier</del> <i>84 months</i>

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CUSTOMER-M/s MORADABAD SMART CITY LTD.  
TENDER No. : PVVNL-MT/MM/SMART CITY/96/22-23  
LOI No. : 8590/PVVNL – MT/MM/ SMART CITY/96/22-23/LOI DATED.04.01.2023  
Rev-01 & DT-18.04.23

SCHEDULE OF GUARANTEED TECHNICAL PARTICULARS FOR SELF POWERED MICRO PROCESSOR BASED NUMERICAL RELAYS		
Sr. No.	DESCRIPTION	DATA
1	Manufacturer's Name and Country of origin	Name of Manufacturer: C&S Electric Ltd./ Ashida Electronics Country of Origin: India
2	Manufacturer's Design / Ref type	CSDPR/ADR2415
3	Applicable Standard	IEC-60255 ✓
4	Current setting range for a) Overcurrent relay-IDMT b) Earth fault element-Definite Time	O/C-10-250% E/F-5 -250%   <i>As per IEC</i> <b>APPROVED</b>
5	Whether the relay has in-built facilities of IDMT, OL, EL	Yes
6	Details of IDMT Characteristics	NI, LI, EI, VI
7	Accuracy for different settings and limits of errors	As per IEC 60255
8	Whether Alpha numeric / LED display	Yes
9	Whether compatible for 1A CT Secondary	Yes ✓
10	Whether draw out type	No
11	Type of case	Flush Mounted
12	Reset time	<40 ms ✓
13	Burden of relay	2.5VA ✓
14	Maximum and Minimum, operating ambient air temp	-10°C to 60°C ✓
15	Whether technical literature pamphlets about the relay offered	Yes, furnished ✓
16	Period of Guarantee	66 months from date of dispatch or 60 months from date of commissioning whichever is earlier.
17	Certificate of proof for Electro-magnetic interference	Yes <i>Amul</i>

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MSCL Project.





CUSTOMER-M/s MORADABAD SMART CITY LTD.  
TENDER No. : PVVNL-MT/MM/SMART CITY/96/22-23  
LOI No. : 8590/PVVNL - MT/MM/ SMART CITY/96/22-23/LOI DATED.04.01.2023  
Rev-01 & DT-18.04.23

SCHEDULE OF GUARANTEED PARTICULARS FOR POTENTIAL TRANSFORMER		
Sr. No.	DESCRIPTION	DATA
1	Name of the Manufacturer & Country of origin	Name of Manufacturer: Nortex/ ADCON/NPT Country of Origin: India
2	Type & Voltage level	Resin cast / 11kV
3	Applicable Standards	IS:16227, I & III
4	Application & construction type	Metering PT Indoor
5	Rated Highest system Voltage (kVrms)	12kV
6	Rated Frequency (Hz)	50 Hz
7	Rated PT ratio	11kV/V3/110V/V3 ✓
8	Rated Primary Voltage (V)	11kV/V3 ✓
9	Rated secondary Voltage (V)	110V/V3 ✓
10	Rated VT Burden (VA)	50 VA ✓
11	Rated accuracy class	0.5 ✓
12	Insulation class	B
13	Rated Voltage factor	1.2 continuous & 1.9 for 8 hours
14	One minute power frequency dry withstand Voltage rating	
	a) Primary Winding (kVrms)	28kV ✓
	b) Secondary Winding (kVrms)	3kV ✓
15	Rated impulse voltage(kVpeak)	75kVp ✓

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ACCESSORIES & SPARES		
Sr. No.	DESCRIPTION	DATA
1	Accessories & Spares	As per the SBD

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