



TP CENTRAL ODISHA DISTRIBUTION LIMITED
(A Tata Power & Odisha Govt. joint venture)
2nd Floor, IDCO Tower, Janpath Bhubaneswar, Odisha 751022

NIT No.: TPCODL/P&S/100000139/2021-22

Open Tender Notification

for

Rate contract for Supply of Lightning Arrester 33kV 10KA

**Tender Enquiry No.: TPCODL/P&S/1000000139/21-22,
Due Date for Bid Submission: 15th December 2021 [18:00
Hrs.]**

**TP Central Odisha Distribution Limited
(A TATA Power and Odisha Government Joint Venture)
Procurement & Stores Department,
2nd Floor, IDCO Towers, Janpath, Bhubaneswar – 751022**



TP CENTRAL ODISHA DISTRIBUTION LIMITED
(A Tata Power & Odisha Govt. joint venture)
2nd Floor, IDCO Tower, Janpath Bhubaneswar, Odisha 751022

NIT No.: TPCODL/P&S/100000139/2021-22

Tender Enquiry No - TPCODL/P&S/100000139/2021-22

Tender Enquiry No.	Work Description	EMD (Rs.) *	Tender Fee (Rs.) **	Last Date and Time for payment of Tender Fee
TPCODL/P&S/1000000139/2021-22	Rate contract for Supply of Lightning Arrester 33kV 10KA	50,000	5,000	04.12.2021, 17:00Hrs

* EMD is exempted for MSMEs registered in the State of Odisha.

** MSMEs registered in the State of Odisha shall pay tender fee of Rs. 1,000/- including GST. For details of MSME norms, pls refer "Annexure A" below.

INFORMATION TO THE BIDDERS TO PARTICIPATE IN E-OPEN TENDER SYSTEM OF TPCODL

-: Steps for E-tender submission:-

Bids are to be submitted only through online e-procurement platform, ARIBA. Any other form of bid submission will not be accepted. Online Link for submission of bid through ARIBA will be sent only after confirmation of payment of tender fee from bidder.

Step 1: The bidder can get primary information about the tender from the Newspaper advertisement / TPCODL website <www.tpcentralodisha.com> and can download the tender document from the above website.

Step 2: Non-Refundable Tender Participation Fee, as indicated in tender document, to be submitted before last date of tender fee payment, in the form of direct deposit/NEFT/RTGS in the following bank account.

Account Name: TP Central Odisha Distribution Limited
Bank Name: State Bank of India,
IDCO Towers, Bhubaneswar
Bank Account No. : 10835304915
IFSC Code : SBIN0007891

Step 3: Eligible and Interested bidder to send an email to TPCODL attaching duly signed and stamped letter on Bidder's letterhead, with following details, expressing their intend to bid against above tender:



TP CENTRAL ODISHA DISTRIBUTION LIMITED
(A Tata Power & Odisha Govt. joint venture)
2nd Floor, IDCO Tower, Janpath Bhubaneshwar, Odisha 751022

NIT No.: TPCODL/P&S/100000139/2021-22

SI No	Description	Bidder's Response
i)	Tender Enquiry No.	
ii)	Description of materials / Works Tendered	
iii)	Name and address of the bidding company	
iv)	Name of the authorized contact person	
v)	Contact No. authorized person	
vi)	E-mail Id of the where online ARIBA link to be	
vii)	Tender Fee details (Amount / NEFT-RTGS UTR No	
viii)	GST No.of bidder	
ix)	MSME Certificate, wherever applicable	
x)	Postal address of bidder for return of EMD BG	

E-mail has to be sent to <asish.karmakar@tpcentralodisha.com> with copy to <sudhakar.behera@tpcentralodisha.com> before "Last date and time for payment of Tender Participation Fee".

Step 4: On receipt of the document as mentioned in Step 3 above and after due verification of the same, ARIBA link for participation in the tender will be sent to bidder's mail address from ARIBA system.

Step 5: In this mail there will be an online link as **Click Here** to participate in the tender.

Step 6: Click "**Click Here**" to access this event.

Step 7: If bidder is bidding first time for TPCODL through ARIBA site then please "Sign UP" by creating User Name and password as mentioned in Sign Up page. Please follow the process, as mentioned in the Sign Up page, during creation of User Name and password. Also a simple one-page registration screen will open for first time user. All * mark mandatory field to be filled in.

Those who are already having User Name and password for accessing TPCODL events, they can LOGIN using same User Name and password.

If bidder has got User name and password for their other customer, same will not be applicable for TPCODL.

Step 8: You will be able to see the RFQ

Step 9: After review and downloading of all documents click on "**Review Pre-requisites**"

Step 10: Review and accept "**Bidder Agreement**".

Step 11: You can see attached pdf tender document against clause no 1.1.1 (Introduction).

Step 12: Vendor has to attach pdf version of technical bid in clause no. 2.1 and 2.2. In this field do not attach any price document.



TP CENTRAL ODISHA DISTRIBUTION LIMITED
(A Tata Power & Odisha Govt. joint venture)
2nd Floor, IDCO Tower, Janpath Bhubaneshwar, Odisha 751022

NIT No.: TPCODL/P&S/100000139/2021-22

Price schedule is attached in clause no.3.2. Same has to be downloaded and price and tax details to be filled in as per the format given, print to be taken in vendor's letter head and signature and seal to be made by authorised person. PDF version of this price bid to be attached in clause 3.2 For Price Bid put all the unit price and taxes and duties in provided field. Put "0" (ZERO) in not applicable field.

Step 13: After successfully putting Techno commercial offer and price part then click on **"Submit Entire Response"**

Note: Once user ID and password created, bidder can also login to ARIBA site through the following URL:

<https://service.ariba.com/Sourcing.aw/124997008/aw?awh=r&awssk=oxt0s1BN&dard=1>

CONFIDENTIAL



TP CENTRAL ODISHA DISTRIBUTION LIMITED
(A Tata Power & Odisha Govt. joint venture)
2nd Floor, IDCO Tower, Janpath Bhubaneshwar, Odisha 751022

NIT No.: TPCODL/P&S/100000139/2021-22

Annexure-A

Preferential norms for procurement from MSMEs registered in the State of Odisha

1) Tender Fees

To participate in the tender, MSMEs registered in the State of Odisha shall pay Rs.1,000/- including GST towards cost of tender paper.

2) Earnest Money Deposit (EMD)

EMD shall be exempted for MSME registered in the State of Odisha. However, Bidder shall be barred to participate in the tendering process for a period of 2 years in case it backs out post award of the contract.

3) Qualification Requirement for Open Tenders

Qualification Requirement of Financial Turnover for MSME registered in the State of Odisha shall be reduced to 20% of the existing criteria.

For past experience, instead of relying on the volumes / value of earlier Supplies / Projects, assessment of the Bidder shall be done on the basis of feedback from Customers. Past performance experience at Tata Power and its Group Companies shall supersede feedback from other Customers.

4) Reservation for MSME

It shall be mandatory to procure at least 20% of the total volume of the procurement from MSME registered in the State of Odisha (however, it shall not apply where goods/services are not available with the MSME), subject to matching L1 discovered prices and meeting technical specifications including quality requirements.

5) Performance Bank Guarantees

Performance Bank Guarantee for MSME registered in the State of Odisha shall be 25% of the value normally prescribed.



TP CENTRAL ODISHA DISTRIBUTION LIMITED
(A Tata Power & Odisha Govt. joint venture)
2nd Floor, IDCO Tower, Janpath Bhubaneshwar, Odisha 751022

NIT No.: TPCODL/P&S/100000139/2021-22

CONTENTS OF THE ENQUIRY

S. NO.	PARTICULARS
1.	Event Information
2.	Submission of Bid Documents
3.	Bid Opening & Evaluation process
4.	Evaluation Criteria
5.	Award Decision
6.	Order of Preference/Contradiction
7.	Post Award Contract Administration
8.	Specifications and Standards
9.	General Conditions of Contract
10.	Safety
Annexures	
I	Annexure I – Schedule of Items
II	Annexure II – Specification, drawing and GTP
III	Annexure III – Schedule of Deviations
IV	Annexure IV – Schedule of Commercial Specifications
V	Annexure V – Document Check List
VI	Annexure VI – Acceptance Form for Participation in Reverse Auction Event
VII	Annexure VII – General Condition of Contract
VIII	Annexure VIII – Safety Policy and Safety Terms and Conditions
IX	Annexure IX - Environment & Sustainability Policy
X	Annexure X – Tata Code of Conduct(TCOC)



TP CENTRAL ODISHA DISTRIBUTION LIMITED
(A Tata Power & Odisha Govt. joint venture)
2nd Floor, IDCO Tower, Janpath Bhubaneshwar, Odisha 751022

NIT No.: TPCODL/P&S/1000000139/2021-22

1.0 Event Information

1.1. Scope of work

Bids are invited from interested Bidders entering into a Rate Contract valid for 1-year Rate contract for Supply of LIGHTNING ARRESTER 33 KV 10KA the following items:

S. No.	Description	UOM	Quantity
1.	LIGHTNING ARRESTER 33 KV, 30 KV 10 KA CI-II	EA	800
2	LIGHTNING ARRESTER 33 KV, 10 KA, CL III	EA	600

1.2. Availability of Tender Documents

Please refer "Procedure to participate in the e-tender".

1.3. Calendar of Events

(a)	Date of availability of tender documents from TPCODL Website	27.11.2021
(b)	Last date and time of Payment of Tender Fee	04.12.2021, 17:00 Hours
(c)	Last Date of receipt of pre-bid queries, if any	06.12.2021, 17:00 Hours
(d)	Last Date of Posting Consolidated replies to all the pre-bid queries as received	09.12.2021, 17:00 Hours
(e)	Last date and time of receipt of Bids	15.12.2021, 18:00 Hours

Note: In the event of last date specified for submission of bids and date of opening of bids is declared as a closed holiday for TPCODL's office, the last date of submission of bids and date of opening of bids will be the day following working day at appointed times.

1.4 Mandatory documents required along with the Bid

- 1.4.1 EMD of requisite value and validity
- 1.4.2 Tender Fee.
- 1.4.3 Requisite Documents for compliance to Qualification Criteria mentioned in Clause 1.7.
- 1.4.4 Acceptance of Specification, drawing with filled in GTP as per Annexure II.
- 1.4.5 Duly signed and stamped 'Schedule of Deviations' as per Annexure III on bidder's letter head.
- 1.4.6 Duly signed and stamped 'Schedule of Commercial Specifications' as per Annexure IV on bidder's letter head.
- 1.4.7 Duly filled in Annexure V and VI.
- 1.4.8 Proper authorization letter/ Power of Attorney to sign the tender on the behalf of bidder.



TP CENTRAL ODISHA DISTRIBUTION LIMITED
(A Tata Power & Odisha Govt. joint venture)
2nd Floor, IDCO Tower, Janpath Bhubaneshwar, Odisha 751022

NIT No.: TPCODL/P&S/1000000139/2021-22

1.4.9 Copy of PAN, GST registration (In case any of these documents is not available with the bidder, same to be explicitly mentioned in the 'Schedule of Deviations')

Please note that in absence of any of the above documents, the bid submitted by a bidder shall be liable for rejection.

1.5. Deviation from Tender

Normally, the deviations to tender terms are not admissible and the bids with deviation are liable for rejection. Hence, the bidders are advised to refrain from taking any deviations on this Tender. Still in case of any deviations, all such deviations shall be set out by the Bidders, clause by clause in the 'Annexure III - Schedule of Deviations' and same shall be submitted as a part of the Technical Bid.

1.6. Right of Acceptance/Rejection

Bids are liable for rejection in absence of following documents:

- i. EMD of requisite value and validity.
- ii. Tender fee of requisite value.
- iii. Price Bid as per the Price Schedule mentioned in Annexure I (BOQ)
- iv. Necessary documents against compliance to Qualification Requirements mentioned at Clause 1.7 of this Tender Document.
- v. Filled in Schedule of Deviations as per Annexure III.
- vi. Filled in Schedule of Commercial Specifications as per Annexure IV.
- vii. Signed and filled in Specification and GTP as per Annexure II.
- viii. Duly filled and signed Annexure V and VI.
- ix. Receipt of Bid within the due date and time.

TPCODL reserves the right to accept/reject any or all the bids without assigning any reason thereof.

1.7 Qualification Criteria

- a) The bidder should have an average annual turnover of Rs.1.5 crores in last three financial years (FY 18-19, FY 19-20 and FY 20-21). Copy of audited Balance Sheet and P&L Account to be submitted in this regard.
- b) Qualification Requirement of Financial Turnover for MSME registered in the State of Odisha shall be reduced to 20% of the existing criteria.
- c) For past experience, instead of relying on the volumes / value of earlier Supplies / Projects, assessment of the Bidder shall be done on the basis of feedback from Customers. Past performance experience at Tata Power and its Group Companies shall supersede feedback from other Customers.
- d) Bidder should have at least the Purchase order single / Multiple copy of experience in supply of similar item Safety Gloves (in Govt. Org/Discoms/Utilities/Industries/PSU) with performance certificate.
- e) Bidder should have a valid Manufacturing license /MSME issued by concerned state/India Govt. for carrying out these works in Copy of license required. In case of supplier, bidders have authorization from original manufacturer.



TP CENTRAL ODISHA DISTRIBUTION LIMITED
(A Tata Power & Odisha Govt. joint venture)
2nd Floor, IDCO Tower, Janpath Bhubaneswar, Odisha 751022

NIT No.: TPCODL/P&S/1000000139/2021-22

- (i) In case of supplier/traders (not having manufacturing facility of their own) shall be consider eligible provided they
- (a) submit an undertaking to facilitate testing for offered material in an accredited laboratory.
 - (b) Provide a valid authorization from concerned manufacturer for dealing with offered material.
- f) Bidder must have successfully executed the supply of LIGHTNING ARRESTER 33 KV, 30 KV 10 KA CI-II for a minimum 800 Qty. or more in single order or 400 Qty in 3 multiple order. LIGHTNING ARRESTER 33 KV,10 KA, CL III for a minimum 600 Qty. or more in single order or 300 Qty in 3 multiple order.
- g) Bidder shall arrange for factory evaluation/ pre-dispatch inspection/ routine and acceptance tests at their works, as per requirement
- h) The bidder must have all statutory compliance like valid PAN no, GSTN etc. The bidder must submit the copy of all these registrations.

1.8. Marketing Integrity

We have a fair and competitive marketplace. The rules for bidders are outlined in the General Condition of Contracts. Bidders must agree to these rules prior to participating. In addition to other remedies available, TPCODL reserves the right to exclude a bidder from participating in future markets due to the bidder's violation of any of the rules or obligations contained in the General Condition of Contracts. A bidder who violates the market place rules or engages in behavior that disrupts the fair execution of the marketplace, may result in restriction of a bidder from further participation in the marketplace for a length of time, depending upon the seriousness of the violation. Examples of violations include, but are not limited to:

- Failure to honor prices submitted to the marketplace
- Breach of terms as published in TENDER/NIT

1.9. Supplier Confidentiality

All information contained in this tender is confidential and shall not be disclosed, published or advertised in any manner without written authorization from TPCODL. This includes all bidding information submitted to TPCODL. All tender documents remain the property of TPCODL and all suppliers are required to return these documents to TPCODL upon request. Suppliers who do not honor these confidentiality provisions will be excluded from participating in future bidding events.

2.0 Evaluation Criteria

- The bids will be evaluated technically and on qualifying criteria of tender terms and conditions.
- The bids will be evaluated commercially on individual item basis (all-inclusive lowest cost at item level) for the complete tender as calculated in Schedule of Items [Annexure I].
- Bidder has to mandatorily quote against each item of Schedule of Items [Annexure I]. Failing to do so, TPCODL may reject the bids.

NOTE: In case a new bidder is not registered with TPCODL, factory inspection and evaluation shall be carried out to ascertain bidder's manufacturing capability and quality procedures. However, TPCODL reserves the right to carry out factory inspection and evaluation for any bidder prior to technical qualification.

In case a bidder is found as Disqualified in the factory evaluation, their bid shall not be evaluated any further and shall be summarily rejected. The decision of TPCODL shall be final and binding on the bidder in this regard.

2.1 Price Basis: Price will be fixed and firm during the contractual period.



TP CENTRAL ODISHA DISTRIBUTION LIMITED
(A Tata Power & Odisha Govt. joint venture)
2nd Floor, IDCO Tower, Janpath Bhubaneswar, Odisha 751022

NIT No.: TPCODL/P&S/1000000139/2021-22

3.0 Submission of Bid Documents

3.1 Bid Submission

Bidders are requested to submit their offer in line with this Tender document through e-tendering process.

Please note all future correspondence regarding the tender, bid submission, bid submission date extension, Pre-bid query etc. will happen only through TPCODL E-Tender system (Ariba).

No e-mail or verbal correspondence will be responded. All communication will be done strictly with the bidder who have done the above step to participate in the Tender.

Bids shall be submitted in 3(Three) parts:

FIRST PART: "EMD" as applicable shall be submitted. The EMD shall be valid for 210 days from the due date of bid submission in the form of Bank Guarantee / Bank Draft / Bankers Pay Order (issued from a Scheduled Bank) online NEFT/ RTGS transfer favoring 'TP Central Odisha Distribution Limited' payable at Bhubaneswar. The EMD BG has to be strictly in the format as mentioned in General Condition of Contract, failing which it shall not be accepted by TPCODL and the bid as submitted shall be liable for rejection. A separate non-refundable tender fee of stipulated amount also needs to be transferred online through NEFT/ RTGS in case the tender document is downloaded from our website.

TPCODL Bank Details for transferring Tender Fee and EMD is as below:

Account Name: TP CENTRAL ODISHA DISTRIBUTION LIMITED
Bank Name: SBI, IDCO Towers, Bhubaneswar
Bank Account No.: 10835304915
IFSC Code: SBIN0007891

Note- EMD is preferred in form of Bank Guarantee and to be delivered at the following address. However, in view of present situation if Bidder is finding it difficult to make and submit BG for EMD amount, they can do online transfer of EMD amount in the above mentioned Account and submit proof of the same as part of Bid Submission.

Please note that in such case, Tender Fee and EMD should be strictly 2 separate transactions.

Please note as return of EMD from Bank Account is non-standard practice and the same may take more time than return of EMD BG.

EMD Original Hard Copy shall be delivered at the following address in Envelope clearly indicating Tender Reference/ Enquiry Number, Name of Tender and Bidder Name

Chief (Procurement & Stores)
TP Central Odisha Distribution Limited
2nd Floor, IDCO Towers, Janapath, Bhubaneswar- 751022

EMD shall be exempted for MSME registered in the State of Odisha. However, Bidder shall be barred to participate in the tendering process for a period of 2 years in case it backs out post award of the contract.

SECOND PART: "TECHNICAL BID" shall contain the following documents:

- i) Requisite Documents for compliance to Qualification Criteria mentioned in Clause 1.7 and clause no. 1.4.
- ii) Type Test Certificate of safety gloves of same or higher rating.
- iii) Acceptance of Specification as per Annexure II.



TP CENTRAL ODISHA DISTRIBUTION LIMITED
(A Tata Power & Odisha Govt. joint venture)
2nd Floor, IDCO Tower, Janpath Bhubaneshwar, Odisha 751022

NIT No.: TPCODL/P&S/1000000139/2021-22

- iv) Duly signed and stamped 'Schedule of Deviations' as per Annexure III on bidder's letter head.
- iv) Duly signed and stamped 'Schedule of Commercial Specifications' as per Annexure IV on bidder's letter head.
- v) Duly filled in Annexure V and VI.
- vi) Proper authorization letter/ Power of Attorney to sign the tender on the behalf of bidder.
- vii) Copy of PAN, GST registration (In case any of these documents is not available with the bidder, same to be explicitly mentioned in the 'Schedule of Deviations')

The technical bid shall be properly indexed and is to be submitted through TPCODL E-tender System (Ariba) only. Hard Copy of Technical Bids need not be submitted

THIRD PART: "PRICE BID" shall contain only the price details and strictly in format as mentioned in Annexure I along with explicit break up of basic prices and Taxes & duties etc. In case any discrepancy is observed between the item description stated in Schedule of Items mentioned in the tender and the price bid submitted by the bidder, the item description as mentioned in the tender document (to the extent modified through Corrigendum issued if any) shall prevail.

Price Bid is to be submitted in soft copy through TPCODL E-Tendering system (Ariba) only. Hard copy of Price Bid not be submitted

The EMD in the form of Bank Draft / BG / Bankers Pay Order shall be submitted in original hard copy and then placed in sealed envelope which shall be clearly marked as below:

EMD

"Rate contract for Supply of Lightning Arrester 33kV 10KA"

The Bid prepared by the Bidder, and all correspondence and documents relating to the Bid exchanged by the Bidder and the TPCODL, shall be written in the English Language. Any printed literature furnished by the Bidder may be written in another Language, provided that this literature is accompanied by an English translation, in which case, for purposes of interpretation of the Bid, the English translation shall govern.

SIGNING OF BID DOCUMENTS:

The bid must contain the name, residence and place of business of the person or persons making the bid and must be signed and sealed by the Bidder with his usual signature. The names of all persons signing should also be typed or printed below the signature.

The Bid being submitted must be signed by a person holding a Power of Attorney authorizing him to do so, certified copies of which shall be enclosed.

The Bid submitted on behalf of companies registered with the Indian Companies Act, for the time being in force, shall be signed by persons duly authorized to submit the Bid on behalf of the Company and shall be accompanied by certified true copies of the resolutions, extracts of Articles of Association, special or general Power of Attorney etc. to show clearly the title, authority and designation of persons signing the Bid on behalf of the Company. Satisfactory evidence of authority of the person signing on behalf of the Bidder shall be furnished with bid.

A bid by a person who affixes to his signature the word 'President', 'Managing Director', 'Secretary', 'Agent' or other designation without disclosing his principal will be rejected.

The Bidder's name stated on the Proposal shall be the exact legal name of the firm.

3.2 Contact Information



TP CENTRAL ODISHA DISTRIBUTION LIMITED
(A Tata Power & Odisha Govt. joint venture)
2nd Floor, IDCO Tower, Janpath Bhubaneshwar, Odisha 751022

NIT No.: TPCODL/P&S/1000000139/2021-22

All the bidders are requested to send their pre-bid queries (if any) against this tender through e-mail within the stipulated timelines. The consolidated reply to all the queries received shall be posted on TPCODL website by the stipulated timelines as detailed in calendar of events.

Communication Details:

Handling Executive for this Tender:

Name: Prashant Gupta
Contact No.: 9634077589
E-Mail ID: prashant.gupta@tpcentralodisha.com

Escalation: General Manager (Material Procurement):

Name: Mr. Sudhakar Behera,
Contact No.: 9437282663
E-Mail ID: sudhakar.behera@tpcentralodisha.com

3.3 Bid Prices

Bidders need to quote for all items as per the Price schedule attached in Annexure I. The bidder shall complete the appropriate Price Schedules included herein, stating the Unit Price for each item & total price with taxes, duties & freight up to destination at various sites of TPCODL. The all-inclusive prices offered shall be inclusive of all costs as well as Duties, Taxes and Levies paid or payable during the execution of the supply work, breakup of price constituents.

Applicable GST to be specified clearly.

The quantity break up shown else-where other than Price Schedule is tentative. The bidder shall ascertain himself regarding material required for completeness of the entire work. Any items not indicated in the price schedule but which are required to complete the job as per the Technical Specifications/ Scope of Work/ SLA mentioned in the tender, shall be deemed to be included in prices quoted.

3.4 Bid Currencies

Prices shall be quoted in Indian Rupees Only.

3.5 Period of Validity of Bids

Bids shall remain valid for 180 days from the due date of submission of the bid.

Notwithstanding clause above, the TPCODL may solicit the Bidder's consent to an extension of the Period of Bid Validity. The request and responses thereto shall be made in writing.

3.6 Alternative Bids

Bidders shall submit Bids, which comply with the Bidding documents. Alternative bids will not be considered. The attention of Bidders is drawn to the provisions regarding the rejection of Bids in the terms and conditions, which are not substantially responsive to the requirements of the bidding documents.

3.7 Modifications and Withdrawal of Bids

The bidder is not allowed to modify or withdraw its bid after the Bid's submission. The EMD as submitted along with the bid shall be liable for forfeiture in such event.

3.8 Earnest Money Deposit (EMD)



TP CENTRAL ODISHA DISTRIBUTION LIMITED
(A Tata Power & Odisha Govt. joint venture)
2nd Floor, IDCO Tower, Janpath Bhubaneswar, Odisha 751022

NIT No.: TPCODL/P&S/1000000139/2021-22

The bidder shall furnish, as part of its bid, an EMD amounting as specified in the tender. The EMD is required to protect TPCODL against the risk of bidder's conduct which would warrant forfeiture.

The EMD shall be denominated in any of the following form:

- Banker's Cheque/ Demand Draft/ Pay order drawn in favor of TP Central Odisha Distribution Limited payable at Bhubaneswar.
- Online transfer of requisite amount through NEFT/ RTGS.
- Bank Guarantee valid for 210 days after due date of submission.

The EMD shall be forfeited in case:

a) The bidder withdraws its bid during the period of specified bid validity.

Or

b) The successful Bidder does not

- a) accept the Purchase Order, or
- b) furnish the required Performance Security Bank Guarantee

3.9 Type Tests (if applicable)

The type tests specified in TPCODL specifications should have been carried out within five years prior to the date of opening of technical bids and test reports are to be submitted along with the bids. If type tests carried out are not within the five years prior to the date of bidding, the bidder will arrange to carry out type tests specified, at his cost. The decision to accept/ reject such bids rests with TPCODL

4 Bid Opening & Evaluation process

4.1. Process to be confidential

Information relating to the examination, clarification, evaluation and comparison of Bids and recommendations for the award of a contract shall not be disclosed to Bidders or any other persons not officially concerned with such process. Any effort by a Bidder to influence the TPCODL's processing of Bids or award decisions may result in rejection of the Bidder's Bid.

4.2. Technical Bid Opening

Bids will be opened at TPCODL Office, Bhubaneswar. All tender bids shall be opened internally by TPCODL. Presence of any bidder will not be allowed during bid opening process. Technical bid must not contain any cost information whatsoever.

First the envelope marked "EMD" will be opened. Bids without EMD/cost of tender (if applicable) of required amount/ validity in prescribed format, shall be rejected.

Next, the technical bid of the bidders who have furnished the requisite EMD will be opened, one by one.

4.3. Preliminary Examination of Bids/Responsiveness

TPCODL will examine the Bids to determine whether they are complete, whether any computational errors have been made, whether required sureties have been furnished, whether the documents have been properly signed, and whether the Bids are generally in order. TPCODL may ask for submission of original documents in order to verify the documents submitted in support of qualification criteria.

Arithmetical errors will be rectified on the following basis: If there is a discrepancy between the unit price and the total price per item that is obtained by multiplying the unit price and quantity, the unit price shall prevail and



TP CENTRAL ODISHA DISTRIBUTION LIMITED
(A Tata Power & Odisha Govt. joint venture)
2nd Floor, IDCO Tower, Janpath Bhubaneswar, Odisha 751022

NIT No.: TPCODL/P&S/1000000139/2021-22

the total price per item will be corrected. If there is a discrepancy between the Total Amount and the sum of the total price per item, the sum of the total price per item shall prevail and the Total Amount will be corrected.

Prior to the detailed evaluation, TPCODL will determine the substantial responsiveness of each Bid to the Bidding Documents including production capability and acceptable quality of the Goods offered. A substantially responsive Bid is one, which conforms to all the terms and conditions of the Bidding Documents without material deviation.

Bid determined as not substantially responsive will be rejected by the TPCODL and may not subsequently be made responsive by the Bidder by correction of the non-conformity.

4.4. Techno Commercial Clarifications

Bidders need to ensure that the bids submitted by them are complete in all respects. To assist in the examination, evaluation and comparison of Bids, TPCODL may, at its discretion, ask the Bidder for a clarification on its Bid for any deviations with respect to the TPCODL specifications and attempt will be made to bring all bids on a common footing. All responses to requests for clarification shall be in writing and no change in the price or substance of the Bid shall be sought, offered or permitted owing to any clarifications sought by TPCODL.

4.5. Price Bid Opening

Price bids will be opened internally without the presence of any bidder representative. The EMD of the bidder withdrawing or substantially altering his offer at any stage after the technical bid opening will be forfeited at the sole discretion of TPCODL without any further correspondence in this regard.

4.6. Reverse Auctions

TPCODL reserves the right to conduct the reverse auction (instead of public opening of price bids) for the products/ services being asked for in the tender. The terms and conditions for such reverse auction events shall be as per the Acceptance Form attached as Annexure VI of this document. The bidders along with the tender document shall mandatorily submit a duly signed copy of the Acceptance Form attached as Annexure VI as a token of acceptance for the same.

5 Award Decision

TPCODL will award the contract to the successful bidder whose bid has been determined to be the lowest-evaluated responsive bid as per the Evaluation Criterion mentioned at Clause 2.0. The Cost for the said calculation shall be taken as the all-inclusive cost quoted by bidder in Annexure I (Schedule of Items) subject to any corrections required in line with Clause 3.1 above. The decision to place purchase order/LOI solely depends on TPCODL on the cost competitiveness across multiple lots, quality, delivery and bidder's capacity, in addition to other factors that TPCODL may deem relevant.

TPCODL reserves the rights to award contract to one or more bidders so as to meet the delivery requirement or nullify award decision without assigning any reason thereof.

In case any supplier is found unsatisfactory during delivery process, the award will be cancelled and TPCODL reserves right to award contract to other suppliers who are found fit.

6 Order of Preference/Contradiction

In case of contradiction in any part of various documents in tender, following shall prevail in order of preference:

1. Schedule of Items (Annexure I)
2. Technical Specifications (Annexure II)
3. Special Conditions of Contract (Clause 7.0)
4. Submission of Bid Documents (Clause 3.0)



TP CENTRAL ODISHA DISTRIBUTION LIMITED
(A Tata Power & Odisha Govt. joint venture)
2nd Floor, IDCO Tower, Janpath Bhubaneswar, Odisha 751022

NIT No.: TPCODL/P&S/1000000139/2021-22

5. Acceptance Form for Participation in Reverse Auction (Annexure VI)
6. General Conditions of Contract (Annexure VIII)

7 Post Award Contract Administration

7.1. Special Conditions of Contract

- Rate contract shall be valid for a period of 1 year from the placement of Contract. Release Order (RO) shall be placed as per the requirement of TPCODL. Rate shall be firm and fixed during the validity of the contract.
- Business Associate (BA) shall submit applicable Performance Bank Guarantee as per GCC within 30 days of issuance of rate contract or release order. PBG applicable shall be @ 5% of Rate Contract Value or 10% of Release Order Value. Validity of BG shall be till expiry date of RC plus delivery period plus warranty period in case of 5% value BG. Validity will be till delivery period plus warranty period for 10% value BG. Claim period will be additional one month for both cases.

Performance Bank Guarantee for MSME registered in the State of Odisha shall be 25% of the value normally prescribed

- Any change in statutory taxes, duties and levies during the contract period shall be borne by TPCODL. However, in case of delay in work execution owing to reasons not attributable to TPCODL, any increase in total liability shall be passed on the Bidder, whereas any benefits arising owing to such statutory variation in taxes and duties shall be passed on TPCODL.
- Statutory Variations: Any changes in existing taxes/ Duties and levies, Introduction of new taxes and duties etc. during the period of the contract shall be paid at actuals to BA subject to BA shall submit the tax break up in details, however, where BA has quoted the all-inclusive prices and not shown the tax break-up, this clause will not be applicable. The date of issue of MDCC shall be used for this purpose.
- Quotation in all BOQ items is mandatory, and bid shall be rejected if any line of found blank in price bid.
- Delivery period shall be 30 days from date of receipt of release order / CAT-A issuance, whichever is later
- Warranty period: As mentioned in technical specification, Annexure-II enclosed.
- Delivery location: TPCODL Store at Cuttack or at Bhubaneswar, Odisha.
- Late delivery(LD) clause will be applicable as per GCC.
- All other terms and conditions of TPCODL General Conditions of Contract shall be applicable.
- TPCODL shall short close the issued Release Order / Rate contract, in case of any quality issues
- Terms of Payment:

On delivery of the materials in good condition and certification of acceptance by certified official, Associate shall submit the Bills/ Invoices in original in the name of TP Central Odisha Distribution Limited to Invoice Desk. The payment shall be released within 45 days from the date of submission of certified bills/ invoices.

7.2 Drawing Submission and Approval

The relevant drawings need to be submitted within two weeks of receipt of firm purchase order by the successful bidder to TPCODL for approval. In case, re-submission of drawings is required on request of TPCODL, same needs to be submitted back to TPCODL within 5 days of such request.

7.3 Payment Terms

Property of TPCODL – Not to be reproduced without prior written permission of TPCODL



TP CENTRAL ODISHA DISTRIBUTION LIMITED
(A Tata Power & Odisha Govt. joint venture)
2nd Floor, IDCO Tower, Janpath Bhubaneswar, Odisha 751022

NIT No.: TPCODL/P&S/1000000139/2021-22

As per SCC, Clause number 7.1.

7.4 Climate Change

Significant quantities of waste are generated during the execution of project and an integrated approach for effective handling, storage, transportation and disposal of the same shall be adopted. This would ensure the minimization of environmental and social impact in order to combat the climate change. Please refer attached Environment Policy and Sustainability Policy, enclosed for more details.

7.5 Ethics

TPCODL is an ethical organization and as a policy TPCODL lays emphasis on ethical practices across its entire domain. Bidder should ensure that they should abide by all the ethical norms and in no form either directly or indirectly be involved in unethical practice.

TPCODL work practices are governed by the Tata Code of Conduct which emphasizes on the following:

- We shall select our suppliers and service providers fairly and transparently.
- We seek to work with suppliers and service providers who can demonstrate that they share similar values. We expect them to adopt ethical standards comparable to our own.
- Our suppliers and service providers shall represent our company only with duly authorized written permission from our company. They are expected to abide by the Code in their interactions with, and on behalf of us, including respecting the confidentiality of information shared with them.
- We shall ensure that any gifts or hospitality received from, or given to, our suppliers or service providers comply with our company's gifts and hospitality policy.
- We respect our obligations on the use of third party intellectual property and data.

Bidder is advised to refer Tata Code of Conduct (TCOC) attached for more information.

Any ethical concerns with respect to this tender can be reported to the following e-mail ID:

pravin.jain@tpcentralodisha.com

8 Specification and standards

As per Annexure II

9 General Condition of Contract

Any condition not mentioned above shall be applicable as per GCC attached along with this tender.

Annexure-I, Price Schedule



TP CENTRAL ODISHA DISTRIBUTION LIMITED
(A Tata Power & Odisha Govt. joint venture)
2nd Floor, IDCO Tower, Janpath Bhubaneswar, Odisha 751022

NIT No.: TPCODL/P&S/1000000139/2021-22

Sl No	Item Description	UOM	Qty	Rate (Rs)	Amount (Rs)	GST Amount(Rs)	Total with GST (Rs)
1	LIGHTNING ARRESTER 33 KV, 30 KV 10 KA CI-II	EA	800				
2	LIGHTNING ARRESTER 33 KV,10 KA, CL III	EA	600				

NOTE:

ii) All rates are to be quoted on delivered basis at TPCODL Store -Cuttack or Bhubaneswar, Odisha, and should be inclusive of freight, insurance, loading & unloading, handling charges and any other charges which may be applicable.

iii) The overall period of the rate contract shall be for a period of 1 year. Release order shall be issued as per requirement of TPCODL. Rates will remain firm and fixed during the rate contract validity of 1 year.

iv)The bids will be evaluated commercially on itemwise lowest cost.

v) The bidders are advised to quote prices strictly in the above format. Failing to do so, bids are liable for rejection.

vi) The bidder must fill each and every column of the above format. Mentioning "extra/inclusive" in any of the column may lead for rejection of the price bid.

vii) No cutting/ overwriting in the prices is permissible.

viii) Quantities mentioned above is for evaluation purpose only and not guaranteed. Quantities may change as per actual requirements.



TP CENTRAL ODISHA DISTRIBUTION LIMITED
(A Tata Power & Odisha Govt. joint venture)
2nd Floor, IDCO Tower, Janpath Bhubaneshwar, Odisha 751022

NIT No.: TPCODL/P&S/1000000139/2021-22

ANNEXURE III

Schedule of Deviations

*Bidders are advised to refrain from taking any deviations on this TENDER. Still in case of any deviations, all such deviations from this tender document shall be set out by the Bidders, Clause by Clause in this schedule and submit the same as a part of the **Technical Bid**.*

*Unless **specifically** mentioned in this schedule, the tender shall be deemed to confirm the TPCODL's specifications:*

S. No.	Clause No.	Tender Clause Details	Details of deviation with justifications

By signing this document we hereby withdraw all the deviations whatsoever taken anywhere in this bid document and comply to all the terms and conditions, technical specifications, scope of work etc. as mentioned in the standard document except those as mentioned above.

Seal of the Bidder:

Signature:

Name:



TP CENTRAL ODISHA DISTRIBUTION LIMITED
(A Tata Power & Odisha Govt. joint venture)
2nd Floor, IDCO Tower, Janpath Bhubaneswar, Odisha 751022

NIT No.: TPCODL/P&S/1000000139/2021-22

ANNEXURE IV

Schedule of Commercial Specifications

(The bidders shall mandatorily fill in this schedule and enclose it with the offer Part I: Technical Bid. In the absence of all these details, the offer may not be acceptable.)

S. No.	Particulars	Remarks
1.	Prices firm or subject to variation (If variable indicate the price variation clause with the ceiling if applicable)	Firm / Variable
1a.	If variable price variation on clause given	Yes / No
1b.	Ceiling	----- %
1c.	Inclusive of GST	Yes / No (If Yes, indicate % rate)
1d.	Inclusive of transit insurance	Yes / No
2.	Delivery	Weeks / months
3.	Guarantee clause acceptable	Yes / No
4.	Terms of payment acceptable	Yes / No
5.	Performance Bank Guarantee acceptable	Yes / No
6.	Liquidated damages clause acceptable	Yes / No
7.	Validity (180 days) (From the date of opening of bid)	Yes / No
8.	Inspection during stage of manufacture	Yes / No
9.	Rebate for increased quantity	Yes / No (If Yes, indicate value)
10.	Change in price for reduced quantity	Yes / No (If Yes, indicate value)
11.	Covered under Small Scale and Ancillary Industrial Undertaking Act 1992	Yes / No (If Yes, indicate, SSI Reg'n No.)

Seal of the Bidder:

Signature:

Name:



TP CENTRAL ODISHA DISTRIBUTION LIMITED
(A Tata Power & Odisha Govt. joint venture)
2nd Floor, IDCO Tower, Janpath Bhubaneshwar, Odisha 751022

NIT No.: TPCODL/P&S/1000000139/2021-22

ANNEXURE V

Checklist of all the documents to be submitted with the Bid

Bidder has to mandatorily fill in the checklist mentioned below:

S. No.	Documents attached	Yes / No / Not Applicable
1	EMD of required value	
2	Tender Fee as mentioned in this tender	
3	Signed copy of this tender as an unconditional acceptance	
5	Duly filled schedule of commercial specifications (Annexure IV)	
6	Sheet of commercial/technical deviation if any (Annexure III)	
7	Balance sheet for the last completed three financial years; mandatorily enclosing Profit & loss account statement	
8	Acknowledgement for Testing facilities if available (duly mentioned on bidder letter head)	
9	List of Machine/tools with updated calibration certificates if applicable	
10	Details of order copy (duly mentioned on bidder letter head)	
11	Order copies as a proof of quantity executed	
12	Details of Type Tests if applicable (duly mentioned on bidder letter head)	
13	All the relevant Type test certificates as per relevant IS/IEC (CPRI/ERDA/other certified agency) if applicable	
14	Project/supply Completion certificates	
15	Performance certificates	
16	Client Testimonial/Performance Certificates	
17	Credit rating/solvency certificate	
18	Undertaking regarding non blacklisting (On company letter head)	
19	List of trained/untrained Manpower	

Seal of the Bidder:

Signature:

Name



TP CENTRAL ODISHA DISTRIBUTION LIMITED
(A Tata Power & Odisha Govt. joint venture)
2nd Floor, IDCO Tower, Janpath Bhubaneshwar, Odisha 751022

NIT No.: TPCODL/P&S/1000000139/2021-22

ANNEXURE VI


ACCEPTANCE FORM FOR PARTICIPATION IN REVERSE AUCTION EVENT

(To be signed and stamped by the bidder)

In a bid to make our entire procurement process more fair and transparent, TPCODL intends to use the reverse auctions as an integral part of the entire tendering process. All the bidders who are found as technically qualified based on the tender requirements shall be eligible to participate in the reverse auction event.


The following terms and conditions are deemed as accepted by the bidder on participation in the bid event:

1. TPCODL shall provide the user id and password to the authorized representative of the bidder. *(Authorization Letter in lieu of the same shall be submitted along with the signed and stamped Acceptance Form).*
2. TPCODL will make every effort to make the bid process transparent. However, the award decision by TPCODL would be final and binding on the supplier.
3. The bidder agrees to non-disclosure of trade information regarding the purchase, identity of TPCODL, bid process, bid technology, bid documentation and bid details.
4. The bidder is advised to understand the auto bid process to safeguard themselves against any possibility of non-participation in the auction event.
5. In case of bidding through Internet medium, bidders are further advised to ensure availability of the entire infrastructure as required at their end to participate in the auction event. Inability to bid due to telephone line glitch, internet response issues, software or hardware hangs, power failure or any other reason shall not be the responsibility of TPCODL.
6. In case of intranet medium, TPCODL shall provide the infrastructure to bidders. Further, TPCODL has sole discretion to extend or restart the auction event in case of any glitches in infrastructure observed which has restricted the bidders to submit the bids to ensure fair & transparent competitive bidding. In case of an auction event is restarted, the best bid as already available in the system shall become the start price for the new auction.
7. In case the bidder fails to participate in the auction event due any reason whatsoever, it shall be presumed that the bidder has no further discounts to offer and the initial bid as submitted by the bidder as a part of the tender shall be considered as the bidder's final no regret offer. Any offline price bids received from a bidder in lieu of non-participation in the auction event shall be out-rightly rejected by TPCODL.
8. The bidder shall be prepared with competitive price quotes on the day of the bidding event.
9. The prices as quoted by the bidder during the auction event shall be inclusive of all the applicable taxes, duties and levies and shall be FOR at TPCODL site.
10. The prices submitted by a bidder during the auction event shall be binding on the bidder.
11. No requests for time extension of auction event shall be considered by TPCODL.
12. The original price bids of the bidders shall be reduced on pro-rata basis against each line item based on the final all-inclusive prices offered during conclusion of the auction event for arriving at Contract amount.


	TATA POWER CENTRAL ODISHA DISTRIBUTION LIMITED, BHUBNESHWAR		
	TECHNICAL SPECIFICATION		
Document Title	Specification of 33KV 10 KA Polymeric Lightning Arrester (class-SL & SM)		
Document No.	ENG-HV-050	Issued Date: 28-09-2021	
Revision No.	00	Page 1 of 18	
	Prepared By:	Reviewed By:	Approved By:

CONTENTS

- 1.0 SCOPE
- 2.0 APPLICABLE STANDARDS
- 3.0 CLIMATIC CONDITIONS OF THE INSTALLATION
- 4.0 GENERAL TECHNICAL REQUIREMENTS
- 5.0 GENERAL CONSTRUCTIONS
- 6.0 NAME PLATE AND MARKING
- 7.0 TESTS
- 8.0 TYPE TEST CERTIFICATES
- 9.0 PRE-DESPATCH INSPECTION
- 10.0 INSPECTION AFTER RECEIPT AT STORE
- 11.0 GUARANTEE
- 12.0 PACKING
- 13.0 TENDER SAMPLE
- 14.0 TRAINING
- 15.0 QUALITY CONTROL
- 16.0 MINIMUM TESTING FACILITIES
- 17.0 MANUFACTURING ACTIVITIES
- 18.0 SPARES, ACCESSORIES AND TOOLS
- 19.0 DRAWING AND DOCUMENTS
- 20.0 GURANTEED TECHNICAL PARTICULARS
- 21.0 SCHEDULE OF DEVIATIONS

	TATA POWER CENTRAL ODISHA DISTRIBUTION LIMITED, BHUBNESHWAR		
	TECHNICAL SPECIFICATION		
Document Title	Specification of 33KV 10 KA Polymeric Lightning Arrester (class-SL & SM)		
Document No.	ENG-HV-050	Eff. Date: 28-09-2021	
Revision No.	00	Page 2 of 18	
	Prepared By:	Reviewed By:	Approved By:


1.0	SCOPE	<p>This specification covers the technical requirements of design, manufacture, testing at manufacturer's works, packing, forwarding, supply and unloading of 33kV,10kA, Station class-SL, (Station class-II) and 33 KV ,10 KA –SM (class –III), Metal Oxide Gap less Polymeric Lightning Arrester at site/stores complete with all accessories for efficient and trouble free-operation. The specific requirements are covered in the enclosed technical data sheet. Some of the parts that may have not been specifically included, but otherwise form part of the Lightning arrester as per standard practice or necessary for proper operation, will be deemed to be also included in this specification. The successful bidder shall not be eligible for any extra charges for such accessories etc.</p>																										
2.0	APPLICABLE STANDARDS	<p>The Lightning Arrester shall be designed manufactured and tested in accordance with latest editions of the following standards.</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: center;">Indian Standards (IS /IEC)</th> <th style="text-align: center;">Title</th> </tr> </thead> <tbody> <tr> <td>IEC 60099-4</td> <td>Specification for surge arrestor without gap for AC System</td> </tr> <tr> <td>IS 3070 & IS 15086</td> <td>Specification for Metal Oxide Gap less Lightning arresters for alternating current System</td> </tr> <tr> <td>IS 4759</td> <td>Hot dip-zinc-coating on structural steel and other allied products.</td> </tr> <tr> <td>IS 2633 & IS 2629</td> <td>Method for testing uniformity of coating on zinc coated particles & Hot dip galvanizing.</td> </tr> <tr> <td>IS 6745</td> <td>Method for determination of mass of zinc coating on zinc coated iron and steel articles.</td> </tr> <tr> <td>IS 6209</td> <td>Method of Partial Discharge Measurement</td> </tr> <tr> <td>IS 8704 & IS 731</td> <td>Guide for selection of creepage distance of polymeric housing insulator.</td> </tr> <tr> <td>ISO 48</td> <td>Rubber, vulcanized or thermoplastic -- Determination of hardness (hardness between 10 IRHD and 100 IRHD).</td> </tr> <tr> <td>IEC 60721-3-2</td> <td>Classification of environmental conditions. Classification of groups of environmental parameters and their severities. Transportation</td> </tr> <tr> <td>IEC 60071</td> <td>Insulation co-ordination -- Part 1 definitions, principles and rules; -- Part 2: Application Guide</td> </tr> <tr> <td>IEC 60507</td> <td>Artificial pollution tests on high voltage insulators to be used on ac systems</td> </tr> <tr> <td>IEC 60815-1</td> <td>Selection and dimensioning of high-voltage insulators intended for use in polluted conditions –Part 1: Definitions, information and general principles</td> </tr> </tbody> </table>	Indian Standards (IS /IEC)	Title	IEC 60099-4	Specification for surge arrestor without gap for AC System	IS 3070 & IS 15086	Specification for Metal Oxide Gap less Lightning arresters for alternating current System	IS 4759	Hot dip-zinc-coating on structural steel and other allied products.	IS 2633 & IS 2629	Method for testing uniformity of coating on zinc coated particles & Hot dip galvanizing.	IS 6745	Method for determination of mass of zinc coating on zinc coated iron and steel articles.	IS 6209	Method of Partial Discharge Measurement	IS 8704 & IS 731	Guide for selection of creepage distance of polymeric housing insulator.	ISO 48	Rubber, vulcanized or thermoplastic -- Determination of hardness (hardness between 10 IRHD and 100 IRHD).	IEC 60721-3-2	Classification of environmental conditions. Classification of groups of environmental parameters and their severities. Transportation	IEC 60071	Insulation co-ordination -- Part 1 definitions, principles and rules; -- Part 2: Application Guide	IEC 60507	Artificial pollution tests on high voltage insulators to be used on ac systems	IEC 60815-1	Selection and dimensioning of high-voltage insulators intended for use in polluted conditions –Part 1: Definitions, information and general principles
Indian Standards (IS /IEC)	Title																											
IEC 60099-4	Specification for surge arrestor without gap for AC System																											
IS 3070 & IS 15086	Specification for Metal Oxide Gap less Lightning arresters for alternating current System																											
IS 4759	Hot dip-zinc-coating on structural steel and other allied products.																											
IS 2633 & IS 2629	Method for testing uniformity of coating on zinc coated particles & Hot dip galvanizing.																											
IS 6745	Method for determination of mass of zinc coating on zinc coated iron and steel articles.																											
IS 6209	Method of Partial Discharge Measurement																											
IS 8704 & IS 731	Guide for selection of creepage distance of polymeric housing insulator.																											
ISO 48	Rubber, vulcanized or thermoplastic -- Determination of hardness (hardness between 10 IRHD and 100 IRHD).																											
IEC 60721-3-2	Classification of environmental conditions. Classification of groups of environmental parameters and their severities. Transportation																											
IEC 60071	Insulation co-ordination -- Part 1 definitions, principles and rules; -- Part 2: Application Guide																											
IEC 60507	Artificial pollution tests on high voltage insulators to be used on ac systems																											
IEC 60815-1	Selection and dimensioning of high-voltage insulators intended for use in polluted conditions –Part 1: Definitions, information and general principles																											

	TATA POWER CENTRAL ODISHA DISTRIBUTION LIMITED, BHUBNESHWAR		
	TECHNICAL SPECIFICATION		
Document Title	Specification of 33KV 10 KA Polymeric Lightning Arrester (class-SL & SM)		
Document No.	ENG-HV-050	Eff. Date: 28-09-2021	
Revision No.	00	Page 3 of 18	
	Prepared By:	Reviewed By:	Approved By:


3.0	CLIMATIC CONDITIONS OF THE INSTALLATION	The material shall be suitable for following climatic conditions,		
		1	Maximum ambient temperature	50 deg.C
		2	Max. Daily average ambient temp	35 deg.C
		3	Min Ambient Temperature	0 deg.C
		4	Maximum Humidity	95%
		5	Average Annual Rainfall	150mm
		6	Average No. of rainy days per annum	120
		7	Altitude above MSL not exceeding	1000m
		8	Wind Pressure	300 Km/hr
		9	Earthquakes of an intensity in horizontal direction	equivalent to seismic acceleration of 0.3g
		10	Earthquakes of an intensity in vertical direction	equivalent to seismic acceleration of 0.15g (g being acceleration due to gravity)
These LA's will be used in heavy saline conditions along the coast. Mechanical strength should be able to withstand the cyclonic & High Intensity wind upto 300 Kmph. The atmosphere is generally laden with mild acid and dust in suspension during the dry months and is subjected to fog in cold months.				

4	GENERAL TECHNICAL REQUIREMENTS
---	---------------------------------------

4.1	GENERAL TECHNICAL REQUIREMENTS for 33kV 10 KA LA class- SL (class II)	
SL. NO.	TECHNICAL PARTICULARS	DESIRED VALUE
1	Installation	Outdoor
2.	Reference standards (Latest Amend.)	IS 3070, IEC 61109, IEC 60099
3	Arrester Type and Housing	Metal Oxide Gapless Cage type with Polymeric housing
4	Normal System Voltage	33 kV
5	Highest System Voltage	36 kV
6	Rated Frequency	50 Hz
7	Maximum Continuous Operating Voltage (M.C.O.V)	25 kV (rms)
8	Arrester Rating	30 kV (rms)
9	Discharge Current	
a	Nominal Discharge Current	10 kA


	TATA POWER CENTRAL ODISHA DISTRIBUTION LIMITED, BHUBNESHWAR		
	TECHNICAL SPECIFICATION		
Document Title	Specification of 33KV 10 KA Polymeric Lightning Arrester (class-SL & SM)		
Document No.	ENG-HV-050	Eff. Date: 28-09-2021	
Revision No.	00	Page 4 of 18	
	Prepared By:	Reviewed By:	Approved By:

4.1	GENERAL TECHNICAL REQUIREMENTS for 33kV 10 KA LA class- SL (class II)	
SL. NO.	TECHNICAL PARTICULARS	DESIRED VALUE
b	Switching impulse discharge current	0.5kA
10	Short Circuit rating	40 kA
11	Voltage Withstand on Arrester Housing	
a	Standard rated short duration Power Frequency withstand Voltage (Dry/Wet) as per IS:2165	70kV (rms)
b	Standard rated Lightning Impulse withstand Voltage (Peak in kV)	170kV (Peak)
12	Lightning Impulse Protection Level (at 10kA)	115 kV
13	Long Duration Current	
a	Peak Current	400A
b	Virtual duration of Peak T	2000 T (Micro Sec)
14	High Current impulse Operating Duty	100 kA (Peak)
15	Creepage Distance of Arrester Housing	1023 min or 31mm/KV
16	Partial Discharge at 1.05 times M.C.O. V	<10 pc
17	Energy Absorption capacity (KJ/KV)	>=4KJ/KV
18	Repetitive charge transfer withstand (coloumbs),Qrs	>=1.0
19	Temporary over voltage (TOV)	
a	1 sec	51kVp
b	10 sec	49kVp
20	Maximum Lightning Impulse Residual voltage with 8/20 microsecond wave	
a	at 5kA	85kVp
b	at 10kA	90kVp
c	at 20kA	100kVp
21	Maximum switching current impulse residual voltage in kVP at 500 A	73.2 KVp
22	Max. Cantilever Strength	35 Kg-M(minimum)
23	Total height of the arrester	To be specified by bidder
24	Total weight of the arrester	To be specified by bidder
25	No. of Metal oxide blocks in arrester	To be specified by bidder
26	Rating of individual ZnO blocks used for assembly	To be specified by bidder
27	Power Losses of the Arrester in watt	To be specified by bidder

	TATA POWER CENTRAL ODISHA DISTRIBUTION LIMITED, BHUBNESHWAR		
	TECHNICAL SPECIFICATION		
Document Title	Specification of 33KV 10 KA Polymeric Lightning Arrester (class-SL & SM)		
Document No.	ENG-HV-050	Eff. Date: 28-09-2021	
Revision No.	00	Page 5 of 18	
	Prepared By:	Reviewed By:	Approved By:


4.1	GENERAL TECHNICAL REQUIREMENTS for 33kV 10 KA LA class- SL (class II)	
SL. NO.	TECHNICAL PARTICULARS	DESIRED VALUE
28	Type of Mounting	Pedestal
29	Material of Insulating base	UV resistant Fire retardant DMC

4.2	GENERAL TECHNICAL REQUIREMENTS for 33kV 10 KA LA class- SM (class III)	
SL. NO.	TECHNICAL PARTICULARS	DESIRED VALUE
1	Installation	Outdoor
2.	Reference standards (Latest Amend.)	IS 3070, IEC 61109, IEC 60099
3	Arrester Type and Housing	Metal Oxide Gapless Cage type and Polymeric housing
4	Normal System Voltage	33 kV
5	Highest System Voltage	36 kV
6	Rated Frequency	50 Hz
7	Maximum Continuous Operating Voltage (M.C.O.V)	25 kV (rms)
8	Arrester Rating	30 kV (rms)
9	Discharge Current	
a	Nominal Discharge Current	10 kA
b	Switching impulse discharge current	1kA
10	Short Circuit rating	40 kA
11	Voltage Withstand on Arrester Housing	
a	Standard rated short duration Power Frequency withstand Voltage (Dry/Wet) as per IS:2165	70kV (rms)
b	Standard rated Lightning Impulse withstand Voltage (Peak in kV)	170kV (Peak)
12	Lightning Impulse Protection Level (at 10kA)	115 kV
13	Long Duration Current	
a	Peak Current	400A
b	Virtual duration of Peak T	2000 T (Micro Sec)
14	High Current impulse Operating Duty	100 kA (Peak)
15	Creepage Distance of Arrester Housing	1023 min or 31mm/KV
16	Partial Discharge at 1.05 times M.C.O. V	<10 pc


	TATA POWER CENTRAL ODISHA DISTRIBUTION LIMITED, BHUBNESHWAR		
	TECHNICAL SPECIFICATION		
Document Title	Specification of 33KV 10 KA Polymeric Lightning Arrester (class-SL & SM)		
Document No.	ENG-HV-050	Eff. Date: 28-09-2021	
Revision No.	00	Page 6 of 18	
	Prepared By:	Reviewed By:	Approved By:

4.2	GENERAL TECHNICAL REQUIREMENTS for 33kV 10 KA LA class- SM (class III)	
SL. NO.	TECHNICAL PARTICULARS	DESIRED VALUE
17	Energy Absorption capacity (KJ/KV)	>=7KJ/KV
18	Repetitive charge transfer withstand (coloumbs),Qrs	>=1.6
19	Temporary over voltage (TOV)	
a	1 sec	51kVp
b	10 sec	49kVp
20	Maximum Lightning Impulse Residual voltage with 8/20 microsecond wave	
a	at 5kA	85kVp
b	at 10kA	90kVp
c	at 20kA	100kVp
21	Maximum switching current impulse residual voltage in kVP At 500 Amps	73.2KVp
22	Max. Cantilever Strength	35 Kg-M(minimum)
23	Total height of the arrester	To be specified by bidder
24	Total weight of the arrester	To be specified by bidder
25	No. of Metal oxide blocks in arrester	To be specified by bidder
26	Rating of individual ZnO blocks used for assembly	To be specified by bidder
27	Power Losses of the Arrester in watt	To be specified by bidder
28	Type of Mounting	Pedestal
29	Material of Insulating base	UV resistant Fire retardant DMC

5.0	GENERAL CONSTRUCTION	Lighting arrestors shall be station class, zinc oxide and gapless type suitable for operation under the system conditions specified. This shall be self-supporting, structure/pedestal mount type. Each unit of arrester assembly shall be hermitically sealed, leak tested and protected against ingress of moisture and shall be individual demountable. The seal shall be properly designed and tested for operation under extreme weather conditions.
5.1	ASSEMBLY	Lighting arrester shall be supplied along with the insulating base, terminal connector and necessary hardwares.The assembly consists of a stack of metal oxide elements arranged in cage type designs. All metal parts shall be of non-rusting and non –corroding metal. Bolts ,screws and pins shall be provided with lock washers. Lightning arrester construction shall be suitable to withstand seismic loading ,short circuit forces,wind load, the force exerted on the arrester base and to terminal imposed by the line conductor. 1. The 33kV 10kA station class Lightning Arrester shall have L-shaped terminal clamp suitable for conductor size of 232 sqmm

	TATA POWER CENTRAL ODISHA DISTRIBUTION LIMITED, BHUBNESHWAR		
	TECHNICAL SPECIFICATION		
Document Title	Specification of 33KV 10 KA Polymeric Lightning Arrester (class-SL & SM)		
Document No.	ENG-HV-050	Eff. Date: 28-09-2021	
Revision No.	00	Page 7 of 18	
	Prepared By:	Reviewed By:	Approved By:


		<ol style="list-style-type: none"> 2. Housing shall be polymeric to provide thermal dissipation of heat generated in the metal oxide elements during over voltage and line discharge. Polymeric housing shall be free from flaws affecting the mechanical and electrical strength of the arrester. Housing shall be capable to withstand the temperature rise due to the non uniform field distribution, caused by the pollution on the surface of the housing. 3. The arrester shall have thermal stability to withstand the heat generated from ZnO element due to continuous operating voltages and surges. It shall remain in undamaged condition, capable protective function. 4. Arrestors shall incorporate anticontamination feature to prevent arrester failure, consequent to uneven voltage gradient across the stack in the event of contamination of the arrester insulating material. These features shall be described in detail when submitting the Bid. Arrestors shall be capable of discharging over voltages occurring during switching of unloaded transformers, capacitors banks and long lines. No radio interferences shall be caused by the arrestors operating at the normal rated voltage. 5. MO resistor diameter shall be near to 100 mm and bidder shall mention energy handling capacity.
5.2	EARTHING PADS	Suitable earthing pads shall be provided in the lightning arrester and surge counter for earthing.
5.3	MECHANICAL STRENGTH	<ol style="list-style-type: none"> 1. The Lightning Arrester and its base shall withstand rated mechanical terminal load and electromagnetic forces without impairing their operational reliability. 2. The Lightning Arrester shall not come out of its position by gravity, wind pressure, vibrations or reasonable shocks.
5.4	SURGE COUNTER (OPTIONAL)	<ol style="list-style-type: none"> 1. Cyclometric 5 digit, non-resetting type counter, dial type surge counter shall be provided for each lightning arrester for automatically recording the number of discharges. Each counter shall have a continuous leakage current indicator and shall not require an external power source of operation. The value of leakage current beyond which the operation is abnormal shall be clearly marked in red colour on the detector. 2. Surge arrester shall include a milli ammeter to monitor the leakage current. The milli –ammeter usually bears a red mark at the higher scale regions. Increase of leakage current to the red marked zone is essentially an indication that the arrester is likely to attain the thermal runaway condition. The qualitative information regarding the arrester's health, obtained from the milli-ammeter, helps the user to take preventive measures before the arrester failure. 3. Discharge counters and milli-ammeters shall be suitable for mounting on structure and shall be mounted at approximately 1.5 meters above ground level. The reading of the milli-ammeter and counters shall be visible through an inspection glass panel. The terminals shall be of

	TATA POWER CENTRAL ODISHA DISTRIBUTION LIMITED, BHUBNESHWAR		
	TECHNICAL SPECIFICATION		
Document Title	Specification of 33KV 10 KA Polymeric Lightning Arrester (class-SL & SM)		
Document No.	ENG-HV-050	Eff. Date: 28-09-2021	
Revision No.	00	Page 8 of 18	
	Prepared By:	Reviewed By:	Approved By:


		<p>robust and adequate size and shall be so located that incoming and outgoing connections are made with minimum possible bends.</p> <p>4. The connecting conductor from lightning arrester earth terminal to the discharge counter incoming terminal shall be insulated for a minimum of 4 kV and this insulated conductor shall be supplied along with the arrester by the bidder. The surge arrester surge counter connection shall be done by means insulated multi strand copper cable of minimum size 35 sq.mm to withstand the fault currents during severe operating conditions.</p> <p>5. The surge arrester shall be designed to operate/ withstand without damage or change in performance for the high current impulse, long duration current impulse corresponding to the discharge class of the surge arrester and nominal discharged current corresponding to the discharge current of the surge with which it is used.</p> <p>6. The external and internal parts of the surge monitor shall be hermetically sealed to withstand the atmospheric variation of temperature and humidity, rain and dust encountered in station in which they are installed. The surge Monitor line terminal shall be solidly connected to the ground terminal of the surge monitor through an inbuilt metal oxide element satisfying the operational.</p>
6.0	NAME PLATE AND MARKING	<p>A stainless steel rating plate, of at least 1 mm thickness, shall be fitted to each Lightning Arrester in a visible position and shall carry all the information as specified in the standards. The letters on the rating plate shall be engraved black on the white/silver background. Fixing screws for outdoor use shall be of stainless steel or any other corrosion resistant metals. The Name plate shall be embossed with "PO no. with date" & "PROPERTY OF TPCODL", The following information shall be mentioned on the Name Plate</p> <ol style="list-style-type: none"> 1 Continuous operating Voltage 2 Rated Voltage 3 Rated Frequency 4 Nominal Discharge Current 5 Pressure relief rated current in kA r.m.s. 6 Manufacturer's Name 7 Type and Identification of the complete 8 Year/Month of Manufacture 9 Serial Number. 10 Warrantee/guarantee clause
7.0	TESTS	<p>All routine, acceptance & type tests shall be carried out in accordance with the relevant IS/IEC. All acceptance tests shall be witnessed by the purchaser/his authorized representative. All the components and fittings shall also be type tested as per the relevant standards. Following tests shall necessarily be conducted on lightning arrester in addition to others specified in IS/IEC standards.</p>
7.1	TYPE TEST	<p>The Type tests shall include the followings:</p>

Document Title	Specification of 33KV 10 KA Polymeric Lightning Arrester (class-SL & SM)		
Document No.	ENG-HV-050	Eff. Date: 28-09-2021	
Revision No.	00	Page 9 of 18	
	Prepared By:	Reviewed By:	Approved By:


		<ol style="list-style-type: none"> 1. Insulation withstand tests, including lightning impulse voltage withstand test 2. Residual voltage tests, including steep current impulse residual voltage test, lightning impulse residual voltage test and switching impulse residual voltage test. 3. Operating duty tests 4. Long duration current impulse withstand test/Repetitive charge transfer rating, Qrs. 5. Moisture Ingress test and water immersion test. 6. Weather ageing test 7. Short circuit test (low/high current) 8. Power frequency (voltage vs Time curve) 9. Bending moment test 10. Hot dip Galvanizing test on exposed steel parts. 11. Internal partial discharge test 12. Dry and wet power frequency voltage withstand test. 13. Seal leak rate test 14. Pressure relief test.
7.2	ROUTINE TEST	<ol style="list-style-type: none"> 1. Measurement of reference voltage test 2. Residual Voltage Test on complete arrester 3. Internal partial discharge test. This test shall be performed on each arrester unit. The test sample may be shielded against external partial discharges. Internal partial discharge shall not exceed 10 pC 4. Satisfactory absence from partial discharges and contact noise shall be checked on each unit by any sensitive method adopted by the manufacturer. 5. For Arrester units with sealed housing leakage check shall be made on each unit by any sensitive method adopted by the manufacturer on the arrester and/or on surge monitor.
7.3	ACCEPTANCE TEST	<ol style="list-style-type: none"> 1. Measurement of Power frequency reference voltage 2. Lightning impulse residual voltage test on complete arrester or arrester unit. 3. Internal Partial Discharge test 4. Visual Examination 5. For arrester units with sealed housing leakage check shall be made on each unit by any sensitive method adopted by the manufacturer on the arrester and on surge monitor. <p>All acceptance tests shall be witnessed by the purchaser's or his authorized representative. The above mentioned tests shall be made on 100 % of arrestors to be supplied</p>

	TATA POWER CENTRAL ODISHA DISTRIBUTION LIMITED, BHUBNESHWAR		
	TECHNICAL SPECIFICATION		
Document Title	Specification of 33KV 10 KA Polymeric Lightning Arrester (class-SL & SM)		
Document No.	ENG-HV-050	Eff. Date: 28-09-2021	
Revision No.	00	Page 10 of 18	
	Prepared By:	Reviewed By:	Approved By:


7.4	SPECIAL THERMAL STABILITY TEST	The test requires additional agreement between manufacturer and purchaser prior to the commencement of arrester assembly.
8.0	TYPE TEST CERTIFICATES	<p>Bidder shall furnish the type test reports as mentioned above as per corresponding standards. All the tests shall be conducted at certified test laboratories, which are CPRI / ERDA only.</p> <p>Type tests should have been conducted in certified Test laboratories during the period not exceeding 5 years from the date of opening the bid.</p> <p>In the event of any discrepancy in the test reports, i.e. any test report not acceptable same shall be carried out without any cost implication to TPCODL.</p>
9.0	PRE-DESPATCH INSPECTION	<p>Equipment shall be subject to inspection by a duly authorized representative of TPCODL. Inspection may be made at any stage of manufacture at the option of the purchaser and the equipment if found unsatisfactory as to workmanship or material, the same is liable to rejection. Bidder shall grant free access to the places of manufacture to TPCODL's representatives at all times when the work is in progress. Inspection by TPCODL or authorized representatives shall not relieve the supplier of his obligation of furnishing equipment in accordance with the specifications. Material shall be dispatched after specific MDCC (Material Dispatch Clearance Certificate) is issued by TPCODL.</p> <p>Following documents shall be sent along with material:</p> <ol style="list-style-type: none"> 1. Test report 2. MDCC issued by TPCODL 3. Invoice in duplicate 4. Packing list 5. Drawings & catalogue 6. Guarantee / Warrantee card 7. Delivery Challan 8. Other Documents (as applicable)
10.0	INSPECTION AFTER RECEIPT AT STORE	The material received at TPCODL store shall be inspected for acceptance and shall be liable for rejection, if found different from the reports of the pre-dispatch inspection and one copy of the report shall be sent to Engineering department.
11.0	GUARANTEE:	<p>Bidder shall stand guarantee towards design, materials, workmanship & quality of process/ manufacturing of items under the contract for due and intended performance of the same, as an integrated product delivered under this contract.</p> <p>In the event any defect is found by the Company up to a period of 18 months from the date of commissioning or 24 months from the date of last supplies made under the contract, whichever is earlier, supplier</p>

	TATA POWER CENTRAL ODISHA DISTRIBUTION LIMITED, BHUBNESHWAR		
	TECHNICAL SPECIFICATION		
Document Title	Specification of 33KV 10 KA Polymeric Lightning Arrester (class-SL & SM)		
Document No.	ENG-HV-050	Eff. Date: 28-09-2021	
Revision No.	00	Page 11 of 18	
	Prepared By:	Reviewed By:	Approved By:

		<p>shall be liable to undertake to replace/rectify such defects at his own costs. within mutually agreed timeframe, and to the entire satisfaction of the Company, failing which the Company will be at liberty to get it replaced/rectified at supplier's risks and costs and recover all such expenses plus the Company's own charges (@ 20% of expenses incurred), from the supplier or from the "Security cum Performance Deposit" as the case may be.</p> <p>The bidder shall further be responsible for 'free replacement' for another period of THREE years from the end of gurantee period for any 'latent defects' if noticed by the company.</p>
12.0	PACKING	<p>Bidder shall ensure that all the equipment covered under this specification shall be prepared for rail/road transport in a manner so as to protect the equipment from damage in transit.</p> <p>The material should be packed in vertical position in individual box in such a way that the shape of rain shed does not get deformed during transportation and storage.</p>
13.0	TENDER SAMPLE	One sample to be submitted during technical bid submission. This shall be Non-returnable basis.
14.0	TRAINING	NA
15.0	QUALITY CONTROL	<p>The bidder shall submit with the offer Quality assurance plan indicating the various stages of inspection, the tests and checks which will be carried out on the material of construction, components during manufacture and bought out items and fully assembled component and equipment after finishing. As part of the plan, a schedule for stage and final inspection within the parameters of the delivery schedule shall be furnished. TPCODL's engineer or its nominated representative shall have free access to the manufacturer's/sub-supplier's works to carry out inspections.</p>
16.0	MINIMUM TESTING FACILITIES	Bidder shall have adequate in house testing facilities for carrying out all routine tests, acceptance tests and pre-dispatch inspection as per relevant International / Indian standards.
17.0	MANUFACTURING ACTIVITIES	<p>The successful bidder will have to submit the bar chart for various manufacturing activities clearly elaborating each stage, with quantity. This bar chart shall be in line with the quality assurance plan submitted with the offer. the bar chart will have to be submitted within 15 days from date of release of order.</p> <p>The successful bidder will have to submit technical compliance document and drawing as per RC line items for getting approval before mass manufacturing. Manufacturing shall start only after getting CAT-A approved drawings or as per intimation from TPCODL.</p>
18.0	SPARES, ACCESSORIES ND TOOLS	Not Applicable


	TATA POWER CENTRAL ODISHA DISTRIBUTION LIMITED, BHUBNESHWAR		
	TECHNICAL SPECIFICATION		
Document Title	Specification of 33KV 10 KA Polymeric Lightning Arrester (class-SL & SM)		
Document No.	ENG-HV-050	Eff. Date: 28-09-2021	
Revision No.	00	Page 12 of 18	
	Prepared By:	Reviewed By:	Approved By:

19.0	DRAWINGS AND DOCUMENTS	<p>Following drawings and documents shall be prepared based on TPCODL specifications and statutory requirements and shall be submitted with the bid:</p> <ol style="list-style-type: none"> 1. Completely filled in Technical Particulars and compliance to each clause of the specification General Technical Requirements to Additional Details. 2. Description of the equipment and all components including brochures. 3. General Drawing arrangement of lightning arrester. 4. Sectional drawing showing internal blocks etc. 5. Bill of material. 6. Experience Certificate and list. 7. Type test certificates. 8. List of makes of major components. 9. Foundation plan <p>Drawings / documents to be submitted after the award of the contract are as under:</p> <p><u>List of Drawings/Parameters to be submitted:</u></p> <ol style="list-style-type: none"> 1. Technical Parameters as asked in Specification (General Technical Particulars, General Technical Requirements, Additional Details, Fittings, Type test Reports and Routine test certificates of bought out accessories). 2. General Arrangement Drawing of the Lightning arrester (Front view and Top view. Complete list of fittings to be displayed and quantities to be mentioned with the drawing). 3. Sectional drawing showing the blocks arrangement. 4. Terminal and connection drawings 5. Type Test Certificates. 6. Installation/ Mounting Instructions/Drawing. <p><u>Additional Documents to be submitted:</u></p> <ol style="list-style-type: none"> a. List of raw materials as well as bought out accessories and the names of sub-suppliers selected from those furnished along with offer. b. Type test certificates of the raw materials and bought out accessories. c. The successful Bidder shall submit the routine test certificates of bought out accessories and central excise passes for raw material at the time of routine testing. <p>All the documents & drawings shall be in English language. After the receipt of the order, the successful bidder will be required to furnish all relevant drawings/parameters/calculation to TPCODL for approval.</p> <p><u>Instruction Manuals:</u></p>
-------------	-------------------------------	--

	TATA POWER CENTRAL ODISHA DISTRIBUTION LIMITED, BHUBNESHWAR		
	TECHNICAL SPECIFICATION		
Document Title	Specification of 33KV 10 KA Polymeric Lightning Arrester (class-SL & SM)		
Document No.	ENG-HV-050	Eff. Date: 28-09-2021	
Revision No.	00	Page 13 of 18	
	Prepared By:	Reviewed By:	Approved By:


	Bidder shall furnish softcopies of nicely bound manuals (In English language) covering erection and maintenance instructions and all relevant information and drawings pertaining to the main equipment as well as auxiliary devices.
--	---

20.	GENERAL TECHNICAL PARTICULARS		
SL. NO.	TECHNICAL PARTICULARS	SM Class (Class-III)	SL Class (Class-II)
1	Installation		
2.	Reference standards (Latest Amend.)		
3	Arrester Type and Housing		
4	Normal System Voltage		
5	Highest System Voltage		
6	Rated Frequency		
7	Maximum Continuous Operating Voltage (M.C.O.V)		
8	Arrester Rating		
9	Discharge Current		
a	Nominal Discharge Current		
b	Switching impulse discharge current		
10	Short Circuit rating		
11	Voltage Withstand on Arrester Housing		
a	Standard rated short duration Power Frequency withstand Voltage (Dry/Wet) as per IS:2165		
b	Standard rated Lightning Impulse withstand Voltage (Peak in kV)		
12	Lightning Impulse Protection Level (at 10kA)		
13	Long Duration Current		
a	Peak Current		
b	Virtual duration of Peak T		
14	High Current impulse Operating Duty		
15	Creepage Distance of Arrester Housing		
16	Partial Discharge at 1.05 times M.C.O. V		

	TATA POWER CENTRAL ODISHA DISTRIBUTION LIMITED, BHUBNESHWAR		
	TECHNICAL SPECIFICATION		
Document Title	Specification of 33KV 10 KA Polymeric Lightning Arrester (class-SL & SM)		
Document No.	ENG-HV-050	Eff. Date: 28-09-2021	
Revision No.	00	Page 14 of 18	
	Prepared By:	Reviewed By:	Approved By:

17	Energy Absorption capacity (KJ/KV)		
18	Repetitive charge transfer withstand (coloumbs),Qrs		
19	Temporary over voltage (TOV)		
a	1 sec		
b	10 sec		
20	Maximum Lightning Impulse Residual voltage with 8/20 microsecond wave		
a	at 5kA		
b	at 10kA		
c	at 20kA		
21	Maximum switching current impulse residual voltage in kVP at 500 A		
22	Max. Cantilever Strength		
23	Total height of the arrester		
24	Total weight of the arrester		
25	No. of Metal oxide blocks in arrester		
26	Rating of individual ZnO blocks used for assembly		
27	Power Losses of the Arrester in watt		
28	Type of Mounting		
29	Material of Insulating base		

21	SCHEDULE OF DEVIATIONS	
----	-------------------------------	--

	TATA POWER CENTRAL ODISHA DISTRIBUTION LIMITED, BHUBNESHWAR		
	TECHNICAL SPECIFICATION		
Document Title	Specification of 33KV 10 KA Polymeric Lightning Arrester (class-SL & SM)		
Document No.	ENG-HV-050	Eff. Date: 28-09-2021	
Revision No.	00	Page 15 of 18	
	Prepared By:	Reviewed By:	Approved By:

(TO BE ENCLOSED WITH THE BID)

All deviations from this specification shall be set out by the Bidders, clause by Clause in this schedule. Unless specifically mentioned in this Schedule, the tender shall be deemed to confirm the purchaser's specifications:

Sl.No.	Clause No.	Details of deviation with justifications

We confirm that there are no deviations apart from those detailed above.

Seal of the Company:

Signature

Designation

Prepared by	Reviewed by	Approved by
-------------	-------------	-------------