

THE SINGARENI COLLIERIES COMPANY LIMITED
(A GOVERNMENT COMPANY)
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SCCL GST No : 36AAACT8873F1Z1
NOTICE INVITING TENDERS (NIT)

ENQ.NO & DATE: HY124O0339 DT: 15.03.2025

DT: 15.03.2025

**Sub: Procurement of 10000A 30KV Lightning Arrestors for Area Workshop/
Yellandu – Reg**

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ENQ CLOSING DATE: 08.05.2025 ON OR BEFORE 3.00PM
ENQ OPENING DATE: 08.05.2025 AFTER 3.00 PM

MODE OF ENQUIRY : OPEN TENDER
NUMBER OF SOURCES : SINGLE
MODE OF TENDERING : SINGLE COVER

Sl.NO.	Item Code	Material Desc.	Qty	Unit
1	5584990309	Lightning Arrestor 10000A, 30.0kv	15	NOS

specifications (Annexure)

Note: Make to be mentioned without any make offer will not be accepted.

Delivery Period: 2 to 4 weeks at **Area Stores, Yellandu.**

Few firms are not supplying items/materials. Their offers will not be considered.

NOTE: FIRMS ARE REQUESTED TO MENTION DELIVERY PERIOD, HSN CODE, GUARANTEE PERIOD, MAKE OF THE ITEM IF ANY, OFFERS WITHOUT ABOVE, WILL NOT BE CONSIDERED FOR FURTHER PROCESS.

NOTE:

- I. Submit sealed covers. These covers to be submitted with Enquiry No, date & Address of SCCL and Firms name.
Vendors who can supply within 2 to 4 weeks on receiving the Order copy only should participate in the enquiry. HSN CODE TO BE MENTIONED MAKE TO BE MENTIONED.
- A. Offers are invited from vendors located in Hyderabad/Secunderabad vendors only will be considered.
- B. OFFER VALIDITY: Bidder shall keep the offer valid for a period of 4 months from the date of opening of the tenders. The offer with less validity period than stipulated is liable for rejection.
- C. GST (GOODS AND SERVICE TAX) registration certificate to be submitted along with material HSN/SAC CODE. The applicability of GST & other taxes, if any, in % shall be clearly mentioned an extra.
- D. The bidders offered without any GST & other taxes, their landed cost will be arrived by taking maximum GST% quoted by other bidders.

A) GENERAL TERMS AND CONDITIONS

- a. Validity, delivery period, GST, Warranty / Guarantee to be mentioned.
- b. Tenders received after stipulated time and date will not be considered for whatsoever reasons thereof.
- c. Quotation must be on a paper identifying the firm with telephone number etc. They should be clear and free from corrections and erasing.
- d. Rate quoted by you should be valid for 120 days from the date of opening of tenders and no revision of rates will be permitted during the above period.
- e. Rate should be quoted as per the sizes / units / makes / brands asked for otherwise such offers will not be considered.
- f. The quantity shown in the enquiry is not firm and fixed. It may be increased /decreased.
The material is to be supplied as per the tender enquiry and should be delivered at **Area Stores,, Yellandu.**
- g. no transportation charges will be paid separately unless it is mentioned in the offer clearly. Mention whether the offer is Ex-showroom, Ex-work or delivery at our office, Hyderabad.
- h. Samples of the items should be submitted in case, they are asked for in the enquiry
- i. Those who are having ready stocks, capable of supply of material as per the enquiry within the stipulated time only need to forward their offer.
- j. M/s SCCL deserves the right to reject any/all the tender (s) or accept any offer or part thereof without giving any reasons. Its decision in this matter will be final and binding on all the tender/(s).
- k. Sealed tenders can be dropped in the tender box in the Company Purchase Office at Hyderabad or can be sent by post / courier before the due date and time. Fax quotations are not accepted
- l. M/s SCCL will not, in any way, be responsible for any postal delay.
- m. Separate cover may be used for each quotation. Quotations of different enquiries put in single cover will not be considered.
- n. Payment will be made within 30 days after receipt of material at **Area Stores, Yellandu.**
- o. YOU HAVE TO SUBMIT YOUR BANK DETAILS FOR RTGS/ONLINE PAYMENTS

Tax Retention Clause:

The supplier shall upload his Tax Invoice in the GSTN as per the provisions of the GST Act i.e., by 10th of the month subsequent to the month in which "Time of Supply" arises.

In respect of orders where the entire order quantity is executed in phased manner through multiple invoices or where staggered payment is made, if the "Tax Invoice" is not uploaded within the time limits prescribed under GST Act, the tax amount will be withheld from the payment made against subsequent Invoice till such time the invoice is uploaded. The final payment is subject to compliance of all formalities under GST by the supplier.

- B) From 01.11.2020 onwards all the vendors whose turnover is more than Rs.10 Crores or above in the financial years 2021- 2022, 2022- 2023 & 2023- 2024 have to submit e-invoice with QR code printed on it. If the turnover is less than Rs.10 Crores than the firm has to declare that we are exempted from e-invoicing requirement. Therefore, the said e-invoicing provisions are not applicable to our company. Towards this, the firm is required to submit undertaking detailed in "ANNEXURE" along with Invoice.
- C) BILLS WILL NOT BE ACCEPTED WITHOUT e-INVOICING IF THE AGGREGATE TURN OVER IN ANY OF THE THREE FINANCIAL YEARS 2021-2022, 2022-2023&2023-2024 EXCEEDS Rs.10 CRORES.
- D) Materials or Items to be supplied 2 to 4 weeks after placement of order.
- E) Firms are requested to submit offers with sufficient knowledge of enquired items. If any doubt regarding enquired item, please ask before submitting offers only.

- F) In case the bidder is unable to submit performance reports, a self certification duly signed and stamped by the bidder, indicating Purchase order number, machine serial number, commissioning date and annual working hours and confirming that the equipment/item offered or similar equipment/item of higher specification, supplied to any Govt. sector/ public sector, have performed satisfactorily for a minimum period of 1 year from the date of commissioning of the equipment and there are no warranty/guarantee claims pending, shall be considered. self certification is not acceptable for the suppliers made to private Firms.

ANNEXURE

If turnover not exceeds Rs 10 crores, firm has to submit following undertaking along with the bills.

PROFORMA			
Our turnover during the Financial years 2021- 2022, 2022- 2023 & 2023- 2024 is less than the Rs.10 crores			
Name:		Designation:	Company Name:
GSTIN	E-invoicing applicability	SEZ (Yes/No)	Status
Any loss of ITC or discharge of interest and penalty arising to SCCL due to any misinformation from us, we are liable to reimburse the same to SCCL on the basis of this declaration.			
SIGNATURE OF OWNER WITH STAMP/SEAL.			

G) FAX/MAIL QUOTATIONS ARE NOT ACCEPTABLE.

Section Officer, Hyderabad

DY.GM(E&M)/HYD

ANNEXURE

SPECIFICATIONS FOR ITEM SI.No. - 5584990309 **LIGHTNING ARRESTOR 10000A 30.0 KV**

1. SCOPE:-

This specification covers design manufacture assembly, testing at manufacturers works, supply and delivery of single phase outdoor metal oxide type gapless surge arresters for use in effectively earthed system with normal voltage of 33 KV for 30 KV Lightning Arrestors. The rated voltage of Arrestors shall be 30 KV (rms) for 33 KV system.

2. CLIMATIC CONDITIONS:-

Peak ambient temperature	-50°C
Minimum temperature in shade	-4°C
Maximum relative humidity	-95% (sometimes Approached saturation)
Average number of thunderstorms days per annum	- 50 days
Average number of rainy days per annum-	100 days
Maximum wind pressure	- 150 Kg/Meter ²
Average annual rain fall	- 125 cm.
Altitude not exceeding	- 1000 meters

3. SPECIAL CONDITIONS :-

The atmosphere at places is laden with dust in suspension during the dry months and subject to fog in cold months. The temperature variation between the daily minimum and maximum is large. Heavy lightning is usual in the area during the month of May to November. The area is also subjected to heavy monsoon rains 80% to 90% of the annual precipitation during the months of June to October.

4. SYSTEM CONDITIONS :-

i)	Nominal system voltage	33 KV
ii)	Highest system voltage	36 KV
iii)	Frequency	50 Hz
iv)	Fault level	1500 MVA

- (iii) The system is 3 phase 50 Hz solidly grounded system with earth fault protection. The winding of transformer which is to be protected is connected in delta formation.
- (iv) We will place one set of surge arrester at the entry of the each line (feeder) in the substation and one set near to the transformers for 33 KV system.
- (v) The insulation level provided in our transformer is 170 KVP for 33 KV system.

5. STANDARD:-

The surge arresters shall strictly conform to IEC 99-4/IS-3070 Part-3-1993 with latest amendment if any in all respects. Maximum residual voltage shall comply with the requirement given hereunder:-

The surge arrestors meeting any other authoritative standards, which ensure equal or better performance than mentioned above, shall be acceptable.

6. The technical requirement have been detailed out below:-

6.1 The supplier should offer nearest rating of surge arrestors.

6.2 The transformers, which are to be protected having BIL 170 KVP for 33 KV winding. We will be installing our LAs at a distance of 5/10 meters from transformer (another 5 meters be added towards height of LAs, lead length and Bushing of transformers). Considering 20% safe margin as per IEC, the impulse voltage of more than 136 KVP should not appear across the 33 KV side of transformer.

6.3 Required Technical Particulars:

S. No	Particulars	Requirements
01	Nominal System Voltage	33 KV
02	Type of Arrestor	Metal Oxide
03	Applicable Standard	IEC 99/4 IS-3070(P-3) /1993 with latest amendments
04	Rated arrestor voltage KV rms	30
05	Maximum continuous operating voltage KV rms	24
06	Nominal discharge current (8/20 micro sec) KA	10.0
07	Minimum discharge capability(KJ/KV)	As per long duration discharge class 2 of IEC 99/4
08	Long duration discharge class	2
09	Maximum residual voltage at nominal discharge current of 8/20 micro sec. wave, KV peak.	85
10	Maximum steep current impulse residual voltage at nominal discharge current, KV peak	93
11	Maximum switching impulse residual voltage at 500 Amp. (peak)	70
12	Minimum prospective symmetrical current(KA)	40
13	Impulse high current short duration discharge of 4/10 micro sec. wave (KAP)	100
14	Max. radio interference voltage at 1000 Hz (micro volts)	1000
15	Overall temporary over voltage withstand capacity (KV rms)	
	1) 1.0 Sec.	36
	2) 10.0 Sec.	34
	3) 100.0 Sec	32
16	Impulse withstand voltage (KVP)	170
17	Current impulse withstand level	As duty prescribed in line discharge Class-I of IEC
18	Pressure relief device	Class "A"
19	Disconnecting device	N.A.
20	Min. creepage distance of	900

	Porcelain housing (mm)	
21	Top & Bottom metal cap	Hot Dip Galvanized
22	Terminal arrangement	Built in clamping type, can be adjusted for Horizontal & Vertical take-off to suit conductor size squirrel to raccoon.
23	Earthing terminal	The base of L.A. shall be provided with two separate terminal/distinctly marked for connection for earthing.

- 6.4 Residual voltage for 8/20 micro sec. wave of nominal discharge current KA are specified above. However, we will prefer still lower residual voltage to ensure better protection.
- 6.5 The requirement of energy is very specific based on our system. The firms are requested to offer nearest energy rating of LAs for both single and double shot.
- 6.6 Current impulse withstand level – duration 1000 micro secs. 30 KV arrestors shall meet the duty prescribed in line discharge class-I of IEC TC-37.

- (C) **Pressure relief device** : - The arrestor for 33 KV system should have a suitable pressure relief system in order to avoid damage to its porcelain housing.
- (D) Each and every individual unit of surge arrestor shall be hermetically sealed and fully protected against ingress of moisture. Suitable rubber gaskets with effective sealing system should be used. The hermetic seal shall be effective for entire life time of arrestors and under the service conditions specified. The supplier shall furnish sectional view showing details of sealing employed. Manufacturers should devise a suitable routine production testing to verify the efficiency of sealing.
- (E) All the units of arrestors of same rating shall be interchangeable type without adversely affecting the performance.
- (F) The lightning (surge) arrestor shall be suitable for pedestal type mounting which will be arranged by the purchaser.
- (G) All necessary bolts, nuts, clamps etc., required for mounting on support structure shall be included in the scope of supply.
- (H) All porcelain housing shall be free from lamination cavities and other flaws affecting mechanical and electrical strengths. The porcelain should be non-porous.
- (I) All exposed ferrous parts shall be hot dip galvanized as per IS-2633.
- (J) Line terminal pads and ground terminal pads should be hot dip galvanized.

8. **TERMINAL CONNECTORS :-**

- Terminal connectors shall be manufactured and tested as per IS: 5361 & should be type tested. The terminal connector drawings should be submitted separately with the tender documents.
- All casting shall be free from blowholes, surface blisters, cracks and cavities. All sharp edges and corners shall be blurred and rounded off.
 - All current carrying parts shall be designed and manufactured to have minimum contact resistance.
 - The contact surface must be machined smooth to obviate excessive current density.
 - The terminal connector for connection of conductor should be suitable for squirrel to raccoon conductor with Universal take off arrangement (can be adjusted for both horizontal & vertical take-off) and should have adequate current carrying capacity.
 - The terminal connector shall be manufactured out of aluminium alloy grade LM

9 or 25 as per IS and by gravity die casting process only.

- 8.6 Terminal connector should have six bolts to hold the conductor and conductor hold length shall be 100 mm approximately. All nuts, washers, bolts etc. shall be stainless steel/hot dip galvanized.
- 8.7 The top metal cap and the base of the Lightning Arrestors shall be galvanized.
- 8.8 The base of the Lightning Arrestor shall be provided with two separate terminals distinctly marked for connection to earth.

- (1) **NAME PLATE** :- The arrestors shall be provided with non-corrosive legible name plate fitted rigidly on arrestor body with indelibly marked with the following information :-

1. SCCo. Ltd..
2. Order No. & date.
3. Manufacturer's name and/or trade mark and identification (serial) No. of the Arrestor.
4. Rated voltage.
5. Maximum continuous operating voltage.
6. Type
7. Rated frequency
8. Nominal discharge current.
9. Long duration discharge class.
10. Pressure relief current in KA rms.
11. B.I.L. of the equipment to be protected
12. Year of manufacture.

The name place should be fitted rigidly so that during life of arrestor, there should not be any possibility of removal of nameplate.

- (2) The supplier shall furnish two sets of following drawings for our approval before commencing the supplies.
- b) General outline drawings of the complete arrestor with technical parameters.
 - c) Drawings showing clearance from grounded and other live objects and between adjacent poles of surge arrestors required at various heights of surge arrestors.
 - d) Drawings showing details of pressure relief devices.
 - e) Mounting clamp details of surge arrestors.
 - f) Details of line terminal and ground terminals.
 - g) Volt time characteristics of surge arrestors.
 - h) The detailed dimensional drawing of porcelain housing such as ID, OD, thickness and insulator details such as height, profile of petticoats, angle of inclination and gap between successive petticoats, total creepage distance etc.
 - i) Name Plate.

(3) **TESTS & TEST CERTIFICATES:-**

- 11.1 Type Test Certificates:- The complete type test certificate of NABL accredited laboratories i.e. CPRI, ERDA etc. for the LAs of all the types/rating as per IEC 99/4 shall compulsorily be submitted in support of evidence of compliance of the specifications & guaranteed particulars. It should cover all the type tests as prescribed in clause 7.1 IEC 99/4 and IS-3070(Part-III).

NOTE :- Type test report of manufacturer's laboratory shall not be acceptable.

11.2 TYPE TEST

The following type tests shall be made in accordance with Clause 7.1 of IEC 99/4 IS-3070 Part-III, with latest amendments:-

1. Insulation withstand test.
 2. Residual voltage test
 3. Long duration current impulse withstand test
 4. Operating duty test
 5. Pressure relief test
 6. Partial discharge test.
- (B) The following additional tests are to be made in accordance with IS-3070 (Part-II)/ 1985 :-
- (iii) Temperature cycle test on porcelain housing.
 - (iv) Porosity test for porcelain components.
 3. Visual Examinations.
- (C) For energy calculation, set of type test reports should be submitted.

11.3 ACCEPTANCE TESTS:-

The following tests as per clause 8.2 of IEC 99/4 and IS-3070 Part-III shall be done on the lower whole number of the cube root of the number of arrestors to be supplied.

- a) Power frequency reference voltage test at reference current on complete arrestors.
- b) Lightning impulse residual voltage test at nominal discharge current on complete arrestors.
- c) Porosity test on porcelain
- d) Partial discharge test.
- e) Galvanising test on exposed steel parts.
- f) Visual/dimensional examination.

11.4 ROUTINE TESTS :-

The following routine tests as per clause 8.1 of IEC 99/4/ IS-3070 Part-I/ Part-III are to be conducted by the manufacturer on offered lot for pre-despatch inspection (The lot offered without routine test reports shall not be considered & delay in acceptance of the offer will be on firm's account):-

- a) Measurement of the reference voltage on the complete arrestors.
- b) Residual voltage test at nominal discharge current on the complete arrestors or sections.
- c) Test to verify the efficiency of sealing.

12. INSPECTION :-

12.1 The purchaser's representative shall at all times be entitled to have access to the works and all places of manufacture where equipment/material shall be manufactured and the representative shall have full facilities for unrestricted inspection of the supplier's works raw materials and process of manufacture for conducting necessary tests as detailed herein.

12.2 The supplier shall keep the purchaser informed in advance of the time of starting and of the progress of manufacture of equipment/material in its various stages so that arrangements can be made for inspection.

12.3 No material shall be dispatched from its point of manufacture before it has been satisfactorily inspected and tested, unless the purchaser in writing waives off the inspection. In the later case also, the equipment/material shall be dispatched only after satisfactory testing for all tests specified herein has been completed.

12.4 The acceptance of any quantity of material shall in no way relieve the supplier of any of his responsibilities for meeting all requirements of the specification, and shall not prevent subsequent rejection if such material is later found to be defective.

12.5 The number of sample selected to carry out the acceptance test shall be as per provision in the respective IS.

12.6 The purchaser has the right to have the tests carried out by an independent Agency subject to recovery of testing expenditure in case of failure, whenever there is dispute regarding the quality of supply.