

### No. Stores/Elect-Transformer- Oil-NIQ/2024-25/SK

Date: 15-10-2024

## NOTICE INVITING QUOTATIONS

The National Institute of Technology Karnataka, Surathkal (in short - NITK, Surathkal or Institute) is an autonomous Institute of the Govt. Of India [under the Ministry of Education] imparting technical and science education. The Institute intends to "Supplying of Transformer Oil for Power House and 33 KV substations at NITK". The details of work listed on the sheet enclosed. In this connection, sealed quotations are invited by the undersigned subject to the terms and conditions enumerated here under from the Contractor/ agencies to reach this office on or before 24-10-2024 by 3:30 PM. The quotations shall be opened on the same day if possible.

## Terms and conditions:

- The intending bidder shall quote his rates in the 'Quotation Format' enclosed here with either in his letter head or using the same format. He / She shall sign each page with seal of the firm. Envelope super scripted as Quotation for "Supplying of Transformer Oil for Power House and 33 KV substations at NITK". and addressed to as "The Superintending Engineer, NITK, Surathkal, Post Srinivasnagar, Mangaluru – 575025"
- 2. The GST registration number and the PAN number of the bidder shall be mentioned in the quotation. Quotation without this information will not be accepted.
- 3. Quotation may be dropped in the Tender Box kept in the office or may be sent by post/ courier. It is the responsibility of the bidder to make sure that the quotation is delivered in time. The quotations received after the due date will not be entertained. The rate quoted shall be valid for 90 days for its acceptance.
- 4. The bidder shall specify the make of material for which the rate is offered by him. Complete technical details of the quoted item should be submitted along with the quotation.
- 5. Freight of Rate [F.O. R] (Including loading and unloading) specified by undersigned, NITK, Surathkal.
- 6. The quotation/ bid shall be accepted depending on the total lowest amount quoted for item. The bidder who quoted total lowest amount will supply the materials.
- 7. The work should be supplying the item within 15 days from the date of confirmation of acceptance of the quotation.

- 8. Tenderer shall refer the details, specifications enclosed separately. The materials should be strictly as per the specification specified, without which the materials will be rejected.
- 9. No advance payment will be made. The payment shall be made within 30 days from the date of completion of work. No interest will be paid for delayed payments if any.
- 10. The rate quoted should be firm. No claim for enhancement of rate is admissible after opening of the Quotations.
- 11. Terms and conditions stipulated in this notice inviting conditions are binding on the bidder.

Yours Faithfully,

sd/-Superintending Engineer NITK, Surathkal

### Name and Address of the Bidder:

Contact No: GST registration number: PAN number: -

# QUOTATION

Date:

То

The Superintending Engineer, Office of the Superintending Engineer, N.I.T.K., Surathkal.

SI. No	Description of the items	Quantity	Rate without tax in Rs / each	GST	Amount with tax in Rs.
1	Transformer Oil (Specification attached) 220 Ltrs / each barrel	2 Barrel (440 Liters)			
	Grand Total Amount				

### DESCRIPTION

TRANSFORMER OIL is designed for human safety and free from carcinogenic Poly chlorinated B phenyls (PCB) and Poly aromatic hydrocarbon (PAH).

## PROPOSED USAGE

- Electric transformers
- Switch gears
- Circuit breakers which require insulating fluids
- Has very high oxidation stability
- Excellent ageing properties resulting in long product life

### **MEETING SPECIFICATION**

IS: 335:1993 (Reaffirmed 2005) performance levels

### PHYSICO-CHEMICAL PROPERTIES

Appearance	Clear and transparent and free from suspended matter of sediments
Density at 29.5 °C, g/cc	0.8279
Kinematic viscosity, cst At 27°C At 40°C	16.46 11
Interfacial tension at 27°C	0.044 N/m
Flash point pensky-marten (closed),°C	172
Pour point,°C	-18
Neutralization value, mg KOH/g a) Total acidity b) Inorganic acidity/alkalinity	Nil Nil

Corrosive sulphur	Non-corrosive		
Electric strength (breakdown voltage) –kV(rms) a) New unfiltered oil	72		
Dielectric dissipation factor at 90 °C	0.00025		
Specific resistance (resistivity) a) A:90 °C b) A:27 °C	750x10 <sup>12</sup> ohm-cm 11300x10 <sup>12</sup> ohm-cm		
Oxidation stability a) Neutralization value after oxidation, mg KOH/g b) Total sludge after oxidation, % by wt.	0.4 0.1		
AGEING CHARACTERISTICS AFTER AGEING			
Open breaker method with copper characteristics			
Specific resistance (resistivity) a) A:27 °C b) A:90 °C c) dielectric dissipation factor at 90 °C d) total acidity e) total sludge	350x10 <sup>12</sup> ohm-cm 19x10 <sup>12</sup> ohm-cm 0.0025/2.08 DC NIL NIL		
Presence of oxidation inhibitor, % by wt	Absent		
Water content, mg/kg(ppm)	50		
SK value (%)	1		