



URANIUM CORPORATION OF INDIA LIMITED

TURAMDIH MILL,

P.O. - SUNDERNAGAR, DISTT - EAST SINGHBHUM

JHARKHAND - 832107

Phone No.: 0657 2318001-4, Extn. No. 7452

Ref: UCIL/TMD/Mill/Elect./ENQ/WTP-2/Transformer/02/22

Date: 10/06/2022

(Name of the Contractor)	<p>Last Date of submission of offer: 17/06/2022, 12.00 Noon</p> <p>Following reference number shall be super scribed on the sealed envelope of quotation</p> <p>Ref: UCIL/TMD/Mill/Elect./ENQ/WTP-2/Transformer/02/22 Date: 10/06/2022</p>
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You are requested to submit sealed quotation in duplicate for "Complete Rewinding, Overhauling and Repairing of 630 kVA, 6600/433 Volts, 50 Hz., ONAN type Power Transformer of Turamdih Mill" as per enclosed price schedule at Schedule - A.

The defective 630 kVA, 6600/433 Volts, 50 Hz. ONAN type Power Transformer kept at Turamdih Mill may be inspected by bidders at their own cost prior to submission of their offers.

Name plate specification of above transformer is given below:

3-PHASE, 6600/433 VOLTS, 50Hz. A.C. POWER TRANSFORMER

TRF SERIAL No.	06 JC - 023 / 01	YEAR OF MFG.:	2007		
KVA	630	IMPD VOLTS	POSN1	POSN3	POSN5
SPECIFICATION	IS: 2026	AT 75°C %	---	4.54	---
FREQUENCY	Hz 50	VECTOR GROUP	Dyn11		
VOLTS (NO LOAD)	HV REF TABLE 1	TYPE OF COOLING	ONAN		
AMPERES	LV 433	CORE & WDGS	kg	1015	
PHASES	HV REF TABLE 1	OIL	kg	415	
	LV 840	OIL	litres	485	
	HV THREE-DELTA	TOTAL WEIGHT	kg	2070	
	LV THREE-STAR	TRANSPORT MASS	kg	2070	
GTD MAX TEMP RISE IN OIL/WDG OVER AMBIENT OF 50°C			50°C	55°C	
INSULATION LEVEL	LI 60 AC 20 / AC 3				
WINDING MATERIAL	COPPER				
ORDER/CONTRACT No.					

TABLE 1

POSN	CONNECT	HV	
		VOLTS	AMPS
1	5 --- 6	6930	52.49
2	6 --- 4	6765	53.77



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3	4 --- 7	6600	55.11
4	7 --- 3	6435	56.52
5	3 --- 2	6270	58.01

MAKE: KIRLOSKAR ELECTRIC CO. LTD., MYSORE, INDIA

The 630 kVA, 6600/433 Volts, 50 Hz. Power Transformer got defective while in operation. The transformer has been manufactured in the year 2007 and was put under continuous operation. Oil level in this transformer was found to be low which indicates leakage from various points such as radiators, HV and LV terminal box sides etc. The transformer may be inspected at our plant by the bidders at their own cost before submitting their offer. The job of complete rewinding of Primary HV winding, Secondary LV winding, insulation of HV and LV winding, cleaning of transformer tank, conservator, overhauling, repairing/replacement of transformer tapping connections etc. including complete replacement of gaskets, cleaning and maintenance of Buchholz relay, WTI, OTI etc., cleaning, baking, varnishing etc. of the windings including reassembling, fitting of transformer, oil filtration, oil testing and test trial etc. shall be carried out at the workshop of the bidder.

The general scope of the above job shall be as follows:

1) Scope of Work:

- a) The contractor shall carry out the jobs of dismantling of the 630 kVA, 6600/433 volts, 50 Hz. Power transformer, Taking out Core and windings & checking of the windings, connections etc. as per the schedule of jobs given at **Schedule - A** of this Enquiry.

Thereafter, the following shall be carried out by the contractor.

b) REWINDING OF PRIMARY (HV) WINDING:-

1. Removal of primary coils including installed RTDs for winding temperature (if any).
2. Thorough cleaning of Transformer Tank including removal of any type of sludge deposit etc.
3. Painting of the inside walls of the transformer tank using non-corrosive, non-reactive paint.
4. Taking measurements and making the forma
5. Manufacturing of coils.
6. Testing of coils.
7. Assembly and connection.
8. Manufacturing the full set of primary coils using existing and new conductors:
 - i. The coil shall be made from existing reusable primary copper conductor bars and new electrolytic grade copper conductors wherever needed to replace the damaged conductor bars.
 - ii. The bare copper conductor is to be insulated through super enamelled and fiber glass cover or polymica cover or as suitable as per original manufacturing.
 - iii. Re-installation of temperature detectors (RTDs) for primary winding.
 - iv. Insulation of primary winding.
 - v. Varnishing
 - vi. Final test (as per quality checks) may be witnessed by UCIL representative.



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- c) **REWINDING OF SECONDARY (LV) WINDING:-**
1. Removal of secondary coils including installed RTDs for winding temperature (if any).
 2. Thorough cleaning of Transformer Core and Laminations including removal of any type of sludge deposit etc.
 3. Taking measurements and making the forma
 4. Manufacturing of coils.
 5. Testing of coils.
 6. Assembly and connection.
 7. Manufacturing the full set of secondary coils using existing and new conductors:
 - i. The coil shall be made from existing reusable secondary copper conductor bars and new electrolytic grade copper conductors wherever needed to replace the damaged conductor bars.
 - ii. The bare copper conductor is to be insulated through super enamelled and fiber glass cover or polymica cover or as suitable as per original manufacturing.
 - iii. Re-installation of temperature detectors (RTDs) for secondary winding.
 - iv. Insulation of secondary winding.
 - v. Varnishing
 - vi. Final test (as per quality checks) may be witnessed by UCIL representative.
- d) Repairing and maintenance of Buchholz relay shall be carried out by the Contractor.
- e) The old/damaged gaskets shall be replaced with new set of gaskets for the transformer by the Contractor.
- f) The Contractor shall take out the Transformer Oil and store in a proper container such as Transformer Oil drums. This Transformer Oil shall be filtered and reused in the repaired transformer. Any extra top up of Transformer Oil shall be supplied by the Contractor at no extra cost. The BDV of Transformer Oil shall be maintained ≥ 60 KV.
- g) The Contractor shall carry out Oil Filtration of the transformer and thereafter the Oil Testing (from PGCIL, Durgapur or CPRI, Kolkata) or any other NABL accredited laboratory and the Oil Test Reports shall be submitted to UCIL in original triplicate hard copies.
- h) Routine Tests as per IS: 2026 shall be carried out for the rewounded and repaired transformer at their workshop. Routine Test report shall be submitted.
- 2) **Validity:** The offer shall be valid for 120 days from the date of submission.
- 3) **Payment:** i) 80 % of the total work value shall be made against delivery of the repaired and tested Transformer from bidders works.
ii) 20% after receipt of transformer within 60 days and successful load trial run of the transformer at our site.
- 4) **Inspection:** The transformer will be inspected during or after repairing and rewinding job as and when required by us.
- 5) **Transportation:** To and fro up to a distance of 25 kms shall be arranged by UCIL. Safe unloading and loading for the Transformer at your site will have to be arranged by you. The rewounded and repaired transformer shall be properly packed and loaded on vehicle by you for



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safe transportation to UCIL site. Any damage to the transformer during transportation to UCIL shall be assessed in your account.

- 6) **Guarantee:** The transformer shall be guaranteed for a period of 270 days (two hundred and seventy days) from the date of delivery to UCIL or for 180 days (one hundred eighty days) from successful load trial at our site whichever is earlier. **This shall be treated as defect liability period of the contract.**
- 7) **Test Certificates:** Routine Tests and Oil Tests Certificate shall be furnished to UCIL in original.

General terms and conditions:

- 1) Transformer as a whole shall be delivered at your site.
- 2) Materials to be used shall be of reputed make.
- 3) NIL
- 4) **Completion time** – 03 (Three) months
- 5) **Liquidated Damages (LD) shall be imposed if job is not completed within completion period stipulated in Work Order.** Liquidated Damages shall be levied where reasons are attributable to contractors for delays in execution of order/ contract. LD shall be levied @ 0.5% per week or part thereof on the value of unfinished supply/work order for each week of delay subject to a maximum of 5% of the total value of contract (excluding Taxes and Duties).
- 6) **SECURITY DEPOSIT & RETENTION MONEY**

6.1 SECURITY DEPOSIT

- A. Security deposit (SD) shall be uniformly levied @ 3% of contract value towards satisfactory completion of the order/works as under.
- B. SD should be submitted in the form of Demand Draft/ Bankers' Cheque/ BG within 30 days of receipt of Letter of Acceptance or commencement of work at site whichever is earlier to materials department/ IEC/ OIC.

6.2 RETENTION MONEY

1.5% of the bill value is to be retained at the time of making payment towards rectification/defective work/supply made as retention money and be treated as Security Deposit. Therefore, the extent of Security Deposit shall be up to 3% of contract value.

6.3 REFUND OF SECURITY DEPOSIT & RETENTION MONEY

EIC/OIC shall recommend release of SD and retention money after compliance by the contractor towards guarantee/warranty/performance guarantee & other related clauses



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as stipulated in the purchase/work order and on submission of formal claim by supplier/contractor.


6.4 FORFEITURE OF SD & RETENTION MONEY

The SD & retention money shall stand forfeited in favour of UCIL, without any further notice to the contractor in the following circumstances:

- A. In case of any failure whatsoever on the part of the contractor at any time during performance of his part of the contract including the extended periods of contract, where notice is given and time for rectification allowed.
 - B. If the contractor indulges at any time in any subletting/ sub-contracting of any portion of the work without approval of UCIL.
- 7) Bidders may visit our site to inspect the transformer on their own cost before submitting their offer.
 - 8) The quoted rates shall be inclusive of miscellaneous overheads and other taxes and duties as applicable but exclusive of G.S.T. G.S.T. shall be paid extra on submission of valid G.S.T. deposit challan along with G.S.T Invoice/Bill.
 - 9) G.S.T. shall be paid only on submission of documentary proof of payment of G.S.T. to the corporation.
 - 10) Quoted prices shall be firm and No escalation on any account whatsoever shall be paid against this work.
 - 11) The bidders shall submit their offers duly signed and stamped on each and every page including Price Schedule.

Offers shall be sent by post or in person to the undersigned on or before **17/06/2022, 12.00 Noon.**

For Uranium Corporation of India Ltd.


10/06/2022

J. Roy

Supdt. (Elect), Turamdih Mill

Enclosure: Schedule – A (Price Schedule of items) containing 2 pages

Ref.: Enquiry no.: UCIL/TMD/Mill/Elect./ENQ/WTP-2/Transformer/02/22 dtd 10/06/2022

Schedule of items/jobs for approval of Complete rewinding and repairing of 3-Phase outdoor type 630 kVA 6.6/0.433 KV Distribution Power Transformer

Sl. No.	Job/Item Description	Qty.	Unit Rate (in Rs.)		Amount (in Rs.)
			in figures	in words	
1	<p>Complete Rewinding and Repairing of 630 KVA, 6.6/0.433 KV, 3-Phase, Make: Kirloskar Power Transformer as per following:</p> <p>Dismantling, Assembling, Oil filtration and testing: This shall include the following jobs including cleaning, maintenance and repair (if required) of buchholz relay, OTI, WTI etc., complete replacement of old/defective gaskets with new gaskets</p> <p>a Dismantling of Transformer</p> <p>b Removal of all parts and core.</p> <p>c Re-assembly after re-winding of transformer coils</p> <p>d Filling and filtration of transformer oil.</p> <p>e Testing of Transformer</p> <p>f Replacement of faulty meters and instruments (if required)</p> <p>g Painting of transformer</p>	1 Lot			
2	<p>Rewinding of Primary (HV) Winding: this shall include the following jobs including cleaning, insulation, varnishing etc.</p> <p>a Removal of primary coils.</p> <p>b Taking measurements and making the forma.</p> <p>c Manufacturing of coils</p> <p>d Testing of coils.</p> <p>e Assembly and connection</p>	1 Lot			

3	Rewinding of Secondary (LV) Winding: this shall include the following jobs including cleaning, insulation, varnishing etc. and all other jobs complete in all respects.	1 Lot		
	a Removal of Secondary coils.			
	b Taking measurements and making the forma.			
	c Manufacturing of coils			
	d Testing of coils.			
	e Assembly and connection			
			Total (in Rs.) =	
			Add: GST @ _____ % (in Rs.) =	
			Grand Total (in Rs.) =	

Note: The above rates shall be inclusive of Service Cost, Material Cost, rebate for scrap copper, all other taxes and duties, cost of to and fro transportation of Transformer from Turamdih to bidder's workshop and back to Turamdih including Transit Insurance etc. (if workshop is located beyond 25 kms from Turamdih) and misc. overhead expenditures.

Grand Total (in words):