

Tamilnadu Trade Promotion Organisation, **Chennai-89**

TNTPO/ENGG-25/2022-23

Date: 23.05.2022

NOTICE INVITING QUOTATION

The Tamilnadu Trade Promotion Organisation, Chennai-89 invites sealed item rate quotation from the eligible Firms / contractors upto 11.00 am on 03.06.2022 for the work of **“Periodical Oil Purification and Testing of Transformer oil & Servicing of OLTC, RTCC Panel etc in 4 nos. of indoor type 1000 kVA transformers at CTC Complex”** and the same will be opened at 11.30 am on the same day in the presence of Intending Contractors.

S.No	Description	Qty	Unit Rate	Total Amount
1.	Complete Filtration and purification of Transformer Oil through hot stream line process in the 1000 kVA Transformer	4 Jobs		
2.	Supply and topping up of new Transformer oil up to the specified level for 4 Nos. Transformers	200 Ltrs		
3.	Testing of Transformer oil for BDV & ACIDITY test and issuing necessary test certificates	4 Nos		
4.	Replacement of Silica gel for the Transformer Breathers	4 Jobs		
5.	Servicing of OLTC, Bucholz Relay & marshalling box	4 Jobs		
6.	Servicing of RTCC panel of Indoor type 1000 kVA Transformer.	4 Jobs		
7.	arresting of Transformer oil Leakage in Transformer 4 in Cooling Fins for the following: Drain out transformer oil if Required and Disconnection of Colling pin and Replacing of Cork rubberized gaskets and Refilling of transformer oil .	1 Job		
8.	Arresting of Transformer oil Leakage in Transformer 3 in Neutral Bushing for the following : Drain out transformer oil from transformer if Required Level and Disconnection of secondary bus bar connections and providing of Cork Rubberized Gaskets and Neoprene cone washers and bus bars Connections and Refilling of transformer Oil in required Level in conservator tank Level and checking Insulation Resistance Values.	1 Job		
9.	Transport Charges for transformer oil filter unit with oil testing equipments to site and return back.	1 Job		
Sub Total				
GST				
Total				

SCOPE OF WORK :

1. The purpose of awarding “Periodical Oil Purification and Testing of Transformer Oil Contract” is to keep the Transformers in good working condition and to work at optimum efficiency.
2. Obtaining work permit issued by the competent authority and getting confirmed that the transformer (Whose oil filtration is to be carried out) has been correctly isolated and properly earthed from both sides (HT & LT).
3. Disconnection of HV, EHV and Neutrals terminals after doing proper markings and keeping them securely tied to some fixed points.
4. Measuring and recording resistance of both the windings with respects to earth and between the windings.
5. Ensuring that the protection circuits of the concerned transformer provided for tripping of other associated electrical equipments are disconnected.
6. Shifting of the transformer-oil Filtration machine near the transformer (whose oil filtration is to be carried out) cautiously taking all safety aspects into consideration.
7. Connecting the filter machine to the nearby power supply source as well as to an earthing point.
8. Ensuring that the sufficient numbers of fire extinguishers/ fire buckets filled up with sand are available at work site and there is free approach to a nearby fire-tank.
09. Covering the transformer properly with an inflammable type tarpaulin sheet for effective filtration taking due protection against a possible fire hazard.
10. Connecting the hose-pipes between the oil filtration machine and the filter valves provided on the transformer properly.
11. No oil leakage should take place either at connection points of the hose-pipes or any other place.
12. Carrying-out oil filtration of a transformer means doing filtration of oil contained in main tank, headers, radiators bank, OLTC chamber, bushings and conservator etc in a proper sequence as per the recommended norms to meet the requirement.

13. Filtration of transformer oil will be carried out at a suitable selected elevated temperature under high vacuum for sufficient period of times as recommended by the relevant IS norms and CEA regulations rules so as to remove solid impurities, dissolved water and gases from the oil and also remove the moisture absorbed by the insulation of the windings up to the required level.
14. Starting the filtration of oil slowly after completing all the preparatory works.
15. Increasing the filtration parameter gradually.
16. Measuring and recording the readings of winding insulation resistance, oil temperature and dielectric strength of the oil at regular intervals in a register exclusively meant for the subject work.
17. Replacing silica gel in the Breather-unit after doing its proper re-generation.
18. Replacing oil in OTI and WTI pockets and doing their calibration to ensure that they give correct readings during the oil filtration work.
19. Checking and setting right the oil level indicator to give reliable indications of oil level in the conservator.
20. Replacing old gaskets of covers etc by new ones if those covers are required to be removed for completing the oil filtration work properly.
21. Maintaining proper house-keeping and doing cleaning of the work area including wiping off the spilled oil, if any, to ensure the work area look tidy and clean.
22. Attending to oil-leakage immediately, if it develops in any part of the transformer due to the activities carried out during the oil filtration work.
23. Making connection of HV, EHV and neutral terminals as per the markings after doing proper cleaning of the connectors.
24. Removing the filtration machine, temporary shed, tools, tackles and all other accessories etc. from the work place.
25. Doing final cleaning of the area around the transformer and the adjacent vicinity to give a clean look.
26. Charging of the transformers and observing the improvement attained in its performance as a result of successful completion of the oil filtration work.
27. Payment will be made through cheque within 15 days after satisfactorily completion of work.
28. The prices quoted shall be inclusive of all taxes, duties and GST. The GST, Labour welfare fund and income tax rates as applicable will be deducted at source from the contractors bills and will be remitted to the concerned authorities. The rates of above taxes however are subjected to revision from the time to time and nothing extra will be paid to the contractor on this account.

SPECIAL TERMS AND CONDITIONS

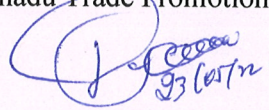
1. The tenderers must have a valid 'A' Grade electrical license issued by the electrical licensing board, govt. of tamilnadu.
2. The filtration work of one transformer is to be completed within three weeks or earlier, counting the day of start of the work as the first day.
3. The contractor will have to arrange necessary Gate-Pass for his employees after fulfilling the formalities laid down by the pass-section authorities.
4. All safety appliances and personnel protection equipments are to be provided by the contractor to his men at his own cost. The contractor's men must use the safety equipments as per the requirement without fail.
5. The employee of the contractor will have to strictly observe safety rules and comply with statutory requirements concerning the safety. Any violation thereof by any employee will expose the contractor to penalty charges.
6. The contractor will have to ensure proper medical fitness of the employee employed by him.
7. As the adjacent equipments are in charged conditions, the work-area is hazardous. The responsible supervisor of the contractor must take a proper work-permit and other instructions from the Engineer in-charge on regular basis.
8. In the event of any work-accident, the contractor will be fully responsible for it. The contractor's representatives will immediately take care of the injured person and provide him the required treatment as suggested by the attending doctor. The injured person may be admitted to BGH also for treatment by paying the charges demanded by the hospitals authority.
9. The contractor will have to comply with all the necessary safety rules, electricity rules, labour laws, EPF rules, workmen compensation act and even other acts, rules and statues as applicable in the plant area as well as in the present job. Ignorance of the above will not be a valid excuse.
10. During the oil filtration job, safety norms and job-specific guide lines are to be strictly followed by the contractor to avoid any fire-hazard or equipment-damage due to overheating or oil spillage.
11. While carrying out oil filtration job, the machine is to be manned by the skilled and experienced technicians and supervisors round the clock on a 24 hours basis to ensure a safe and smooth carrying out of the job.

12. Experienced supervisors and workmen, competent for filtration job, will have to closely supervise the entire job from start to finish taking full responsibility of the job and the equipment round the clock.
13. Once the oil-filtration agency has taken the transformer in its custody for carrying out the oil filtration job, the total responsibility for the safety and security of the transformer will lie with this agency till the transformer is put back into services after completion of the oil filtration job.
15. All incidental items of work, not shown or specified but reasonably implied in the scope of work of the contractor at no extra cost to TNTPO.
16. The contractor will have to attend to any type of leakage / seepage taking place from any part of the transformer which has developed due to activities pertaining to the ongoing filtration job.
 1. If any accessory or part of the transformer gets damaged at any stage of carrying out of the filtration work, the contractor will have to replace it free of cost.
 2. The contractor will perform the subject work in accordance with the guide lines contained in the work-order and the instructions of the Engineer in-charge.
 3. The contractor will have to follow the technical norms pertaining to oil filtration of transformers as per the relevant IS specifications, CEA regulations and Supplier's recommendations, if any.
 4. The contractor will have to keep all the relevant data of filtration, viz. temperature, vacuum, insulation resistance and breakdown voltage etc. measured at regular intervals during the filtration in a record register exclusively meant for these.
 5. The contractor will have to take full precaution against fire hazards by ensuring availability of the suitable fire extinguisher in adequate numbers near the site as oil filtration work involves heating of oil, which is liable to become inflammable.
 6. All the statutory and safety norms, rules and regulations will have to be strictly followed on a 24 hours basis during the ongoing process of oil filtration so as to ensure the safety of the equipment and working personnel.
 7. In case of any unlikely event, the contractor will have to locate and overcome the source of trouble and if needed, filtration work can be stopped to save the transformer at all costs.
 8. No additional charges will be paid for oil filtration plant, its transportation and manpower deployed on it.

9. The filtration work of transformer will be done one by one, subject to availability of shut down of the transformers and as per the requirement arising due to different reasons.

10. In case of any doubt or contradiction, the decision of Engineer in-charge will be final.

For Tamilnadu Trade Promotion Organisation,

A handwritten signature in blue ink, appearing to be 'J. Jeyaraj', with the date '23/05/22' written below it.

AE (Electrical),
TNTPO

Copy to:

1. Notice Board
2. Website - TNTPO