



PUDUCHERRY POWER CORPORATION LIMITED

(A GOVERNMENT OF PUDUCHERRY UNDERTAKING)

PROJECT OFFICE, T.R. PATTINAM 609 606, KARAIKAL.

Phone: 04368-233060

Email: ppclmmc@gmail.com

Telefax: 04368-233287

Ref.No.V-131/MMC/2021-22/1599

GSTIN No.34AAACP6507E1ZS

Dt. 28.12.2021

ENQUIRY

TO

Sub: Inviting offer for Filtration of Transformer Oil & Painting Work of Transformer - Reg.

QUOTATION TO BE:

Submitted on or before: 13.01.2022 -5.00 pm	Opened on: 17.01.2022 - 03.00 pm
Kept valid for 6 months from the date of opening	Submitted in TWO parts.

Sealed quotation is invited for **Transformer oil purification work and Painting of Transformers. The scope of work and specification of transformers are** enclosed and the terms & conditions are mentioned therein.

The Party should have previous work experience for Transformer oil purification works. The supporting document for Transformer Oil Purifications works at any Industries is to be submitted with the offer.

General Terms and conditions:

1. The rate quoted should be inclusive of providing of Oil filtration machine, manpower, transport charges, tools and tackles, etc. required for the works, all taxes and other charges as admissible.
2. Applicable other charges, if any should be clearly mentioned as whether inclusive or extra. If not mentioned, it will be presumed that the rate quoted is inclusive of all other charges.
3. **EARNEST MONEY DEPOSIT:** An Earnest Money Deposit of **Rs 7900.00** (Rupees Seven thousand and nine hundred only) should be paid by demand draft drawn in favor of the EXECUTIVE ENGINEER (MECH.), Puducherry Power Corporation Ltd T.R. Pattinam, Karaikal on any Nationalized/Schedule bank payable at Karaikal. The earnest money deposit will bear no interest and will be released after successful completion of the work and acceptance.
4. Parties registered with NSIC or SSI/MSME is exempted for submitting EMD/SD. However copies of supporting Documents/Certificates should be kept in separate cover super scribing **"Earnest Money Deposit Exemption"**.
5. The party shall be required to place the earnest money and the tender in separate sealed envelopes marked "Earnest Money" and "Tender" respectively. Both the envelopes shall then be placed in another sealed envelope and submitted to the tender inviting authority in the usual manner. The officer opening the tenders shall first open the envelope containing the earnest money. If the earnest money is found to be in order, only then the Officer shall proceed further with opening the tender.
6. **The L1 bidder shall be arrived as the lowest bidder for total amount for all the items. The rate is to be quoted for all items.**
7. The rate has to be quoted in the prescribed tabular column format for work measurement.



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8. The work should be carried out in PPCL site, T.R.Pattinam, Karaikal 609 606. **The specification of the transformers and the scope of the work are enclosed.**
9. No Workshop facility is available inside PPCL campus and outside private workshops to be utilized by the party concerned at their own cost.
10. Exact date for commencement of work will be intimated appropriately.
11. Necessary Gate pass should be obtained well before the commencement of work.
12. The party should ensure round the clock progress of work at site and should follow all safety rules and procedures strictly inside the plant.
13. In case of any faulty workmanship in the scope of work, the tenderer must rectify the same on free of Cost.
14. **PAYMENT: 80%** Payment for Transformer Oil Purification Work will be made within 30 days from the date of receipt of your invoice after completion of work satisfactorily and approval of Engineer-in-charge and the balance **20%** Payment will be made after submission of ESI / EPF etc. documents.
15. **The bill in triplicate along with advance stamped receipt should be sent to the undersigned for effecting payment.**
16. The **20%** Payment will be made only after submission of the following :
 - **For EPF:**

To be generated from the EPF website for the specific month for the manpower deployed to PPCL and the same to be enclosed separately with a covering letter.

 - i. Combined challan of account no.01, 02, 10, 21 &22 with TPRN number.
 - ii. EPF-Electronic Challan cum Return (ECR)
 - iii. EPF Challan summery/EPF-TRPN details.
 - **For ESI:**

To be generated from the ESI website for the specific month for the manpower deployed to PPCL and the same to be enclosed separately with a covering letter.

 - i. ESI challan number
 - ii. ESI monthly contribution –online challan status (Transaction details)
 - iii. ESI monthly contribution (Contractor wise) for the month of.....
17. Party should obtain all permits and licenses under the laws or regulations applicable and in connection with the work carried out and shall comply with and discharge all statutory obligations/liabilities under the various laws such as Factory Act/Workmen's Compensation Act /Employee's State Insurance Act / Employee's Provident Fund Act / Payment of Wages Act / Contract Labor (Regulation & Abolition) Act / Minimum Wages Act Etc., or any modification thereof.
18. **LD Clause:** If the contractor fails to complete the work within the stipulated period, then the Contractor shall pay LD@0.5% for each week delay in work and the total LD% will be subject to the maximum of 5% of the quoted rate.



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19. Our Tax payment Identification GSTIN No.34AAACP6507E1ZS is registered with Commercial Taxes Department, Puducherry. Bidder should furnish their GST details.
20. Quotations through fax/ mail and received after due date will not be considered.
21. Wax sealed quotations should be super scribed as "QUOTATION/ENQUIRY NO.V-131 for Transformer oil Purification work".
22. If the tender opening date happens to be a holiday, the tender will be opened on the next working day.
23. The undersigned reserves all rights to accept/reject any or all the quotations without assigning any reasons thereof.
24. The work order is not transferable and subcontract/sublet of work is not permitted.


EXECUTIVE ENGINEER (MECH.)-PLANT

Scope of work for Oil filtration of 15MVA, NGT, 5MVA and 2MVA Transformers

1. Scope of work for oil filtration

- i. The contractor has to bring the stream line filter machine fitted with a vacuum pump for the transformer oil filtration purpose.
- ii. The capacity of the filter machine should be minimum 4500 LPH.
- iii. The quoted rate should include completing the transformer oil filtration with the required three numbers of cycles / to improve the dielectric strength to the optimum value.
- iv. The contractor should bring the oil testing kit along with filter machine. The voltmeter in the oil testing kit should have been calibrated and the calibration certificate needs to be produced for the same.
- v. The filtration of transformer oil to be carried out through transformer tank only.
- vi. The oil samples during and after filtration has to be taken from top and bottom of the tank in case of 15 MVA, 2MVA and 5MVA transformers and NGT one sample may be taken for testing the dielectric strength and BDV is to be tested only after temperature of the oil cools down.
- vii. **The testing of oil should be in accordance with IS: 6792. Two samples of each of the oil should be tested before and after filtering and reports to be furnished. The BDV of transformer oil tested should be a more than 60KV RMS for one minute with a gap testing of 2.5mm. The circulation is to be continued more than 3 cycles if required until the above BDV is reached as instructed by Engineer in-charge. The test should be carried out six times and the arithmetic mean of the six results should be used.**
- viii. The transformer oil if required for top-up will be supplied under PPCL Scope.
- ix. **The contractor should take IR readings for the transformer and hourly IR values to be recorded for plotting the graph during oil purification as instructed by the Engineer in charge.**

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- x. The healthiness of the Bucholz relay, Magnetic oil gauge, Pressure relief value, OTI, WTI and other protections of the transformer are to be checked and if required needs to be supplied & replaced by the contractor. The Bucholz relay and magnetic oil gauge only be supplied by PPCL scope.
- xi. **In 15MVA Transformer-1 & 2 the existing PRV's of diameter 262 mm has to be replaced by the contractor. The contractor should supply & Replace 02 No PRV's of make Press-n-forge/Sukrut with test and warranty/guarantee certificates.**
- xii. **In 15 MVA Transformer and NGT-1&2 any other fittings/accessories if required to be replaced, the contractor should include both supply & replacement in their scope.**
- xiii. The necessary single/three phase supply for the filtration machine will be provided by PPCL.

2. Scope of work for Repairing work

- i. **The following spots and over all places of the transformers have to be inspected compulsorily for inspection of oil leakages, if nay oil leakage is identified it should be attended by the contractor including required consumables & Materials.**
HV, LV and Neutral bushings, HV bushing secondary terminals, OLTC's Chambers, Top cover & inspection door, view glasses, shut off valves in the radiator fins and entire fittings & accessories of the transformers.
- ii. The entire consumables like rubberized gaskets, view glasses, O rings, seals, paste, washers, bolts & nuts, and etc., required for the job have to brought by the contractor.
- iii. Necessary tools and tackles for attending the oil leakages and the consumables for above said job are in the contractor's scope.
- iv. The above job also includes repair and fabrication work at marshalling box and conservator tank by using stainless steel sheet is required.
- v. The breather units of the transformers are to be replaced by the contractor.
- vi. Replacement of rubber beadings, acrylic sheets in the marshalling box (WTI, OTI Panel) are in the contractor's scope.

3. Scope of work for Painting work.

- i. Tinkering and painting of the transformers need to be taken up simultaneously along with the oil filtration to minimize down time of the transformers. The scope of work includes painting of Transformers, its NGR Panel, and Cable duct and associated fire hydrant lines.
- ii. Painting of Complete Transformer Body, bottom rails and NGR panel with 02 coats of primer and 02 coats of **Epoxy Paint of dove grey colour** with the help of Spray painting machine.
- iii. The job includes degreasing, de-rusting and thorough cleaning of all the external surfaces of tank, fittings. Cleaning should be done either by hand brush/ power brush/buffing, emery paper or combination of all the above to remove all rust/ loose paint/peeled-off paint, grease, oil etc as per standard procedures and directions of Engineer-In-charge (EIC).
- iv. It includes supply of all Materials - Paints (BERGER / ASIAN make), Thinner, Spray painting machine and Labor etc to complete the job in all respects.
- v. The Paint colour for Transformer, NGR Panel, Bus duct and Fire Hydrant lines to be followed by the contractor as instructed by Engineer in Charge.



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- vi. The Transformer, Bus Duct, NGR Panel and Fire Hydrant lines should be painted by BERGER / ASIAN make paints only.
- vii. For Bus duct painting, necessary scaffolding arrangement should be made by the contractor.
- viii. Arrangements of portable crane if required are in Contractor's Scope.
- ix. Transformers oil filtration work has to be carried out one by one.
- x. The contractor should leave the site only after energizing the transformers.
- xi. In case of any faulty workmanship in the scope of work, malfunction the Contractor must rectify the same at their own cost.
- xii. For the above said works the contractor should inspect all the transformers at PPCL site before submission of their offer.

Specification for Transformers for Oil Filtration

2 MVA Transformers - 1 & 2

Make	: BHARAT BIJILEE
Capacity	: 2000 KVA
Voltage (HV)	: 11000 V
Voltage (LV)	: 433 V
Current AT (HV)	: 105 A
Current AT LV	: 2667 A
Phase (HV/LV)	: 3/3
Frequency	: 50 HZ
Year of Manufacture	: 1997
Types of Cooling	: ONAN
Connection symbol	: DYN 11
Mass/vol of oil Kg/lts	: 1140 kg/1325 lts

5 MVA Transformers - 1 & 2

Make	: BHARAT BIJILEE
Capacity	: 5000 KVA
Voltage (HV)	: 11000 V
Voltage (LV)	: 6900 V
Current AT (HV)	: 262.4 A
Current AT LV	: 418.4 A
Phase (HV/LV)	: 3/3
Frequency	: 50 HZ
Year of Manufacture	: 1997
Types of Cooling	: ONAN
Connection symbol	: DYN 11
Mass/vol of oil Kg/lts	: 1980 kg/2300 lts



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15 MVA Transformers -1 & 2 with OLTC

Make	: Apex Electricals LTD
Type	: Out Door
Capacity	: 12000/15000 KVA
H.T Voltage	: 115000 V
H.T Amps	: 60.2/75.3 A
L.T Voltage	: 11000 V
L.T Amps	: 629.8/787.3 A
Connection (HT/LT)	: Star/Delta
Vector Group	: YnD11
Type of Cooling	: ONAN/ONAF
Total Weight	: 36.875 Tons
Wt of Oil	: 9975 Kg/11600 Lts

NGT -1 & 2

Make	: APEX Electrical Ltd
Type of cooling	: ONAN
Rating	: 150 KVA
No Load HT	: 11000 V
No Load LT	: 240 V
Current HT	: 7 A
Current LT	: 360 A
Vector group	: Star/Delta
Phase	: 3
Oil	: 400 kg/ltr



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Sl. No	Description	Rate per unit (Rs.)	Amount (Rs.)
1	Filtration of tr.oil, of 15MVA -1&2 with OLTC, NGT-1&2, 5MVA 1&2 & 2MVA-1&2 Transformers. Total (31250 lts)	(Per Litre for 31250 Ltrs (1-Cycle)	(For 3 Cycles)
2	Repairing work, Tinkering/ painting work in 15MVA-1&2 with OLTC (2 Nos) NGT-1&2, 5MVA-1&2 (02 Nos.) & 2MVA-1&2 (02 Nos.) Transformers, Including NGR Panel, Bus Duct (Epoxy dove grey colour paint) & hydrant line with Epoxy painting of minimum two coats one by one) by using Air compressor which includes supply of paints & other consumables etc., wherever required and as per the scope of work in the annexure enclosed	(Lumpsum)	
3	Transportation charge for filtration machine	(Lumpsum)	
4	Oil leak attending, replacing of gasket and view glass along with materials	(Lumpsum)	
5	Supply & Replacement of 15 MVA Transformer-1&2 PRV's of Diameter 262mm of make Press-n-forge/sukrut with test and warranty/guarantee certificates and any other fittings/ accessories if required to be supplied & replaced for all transformers by the contractor while carrying out oil filtration.	(Lumpsum)	
Sub-Total			
GST @ %			
Total Amount (Rs.)			

Commercial Terms and Condition:

Sl.No	Details	Terms in Tender	Terms Accepted by the Party
1	Price Quoted	Inclusive of Machine , Man power, Transport charges, Tools & tackles etc.	
2	Payment Terms	As per the Terms clause 14.	
3	Validity	90 Days from date of opening of Tender	
4	Supporting Documents for the previous experience	Should be enclosed	
5	Delivery/ Completion Period	Vendor to specify	
6	Acceptance of All the Terms and Conditions	To be Accepted	

Signature with Seal of the Party