



**BID DOCUMENT**

Name of work: "Servicing and filtration of 10 Nos power transformer in both units during AOH"

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ODISHA POWER GENERATION CORPORATION LTD. Unit# 3 & 4

Ib Thermal Power Station, Banaharpali, Jharsuguda – 768234

(ODISHA)

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ODISHA POWER GENERATION CORPORATION LIMITED  
 IB THERMAL POWER STATION Unit # 3&4  
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NOTICE INVITING TENDER

NIT No. ITPS/Unit 3 & 4/21-22/3100002776/18

Date: 10/04/2021

Separate Sealed bids in the prescribed format are invited from bona fide and financially sound reputed Agencies / Registered Firms/Companies for execution of the following works at 2X660 MW IB Thermal Power Station, Banaharpali.

Sl	Name of the work	Tender Cost (Rs.)	EMD (Rs.)	Contract Period	Sale of Tender document	Date of receipt & submission /Opening of technical Bid
1.	"Servicing and filtration of 10 Nos power transformer in both units during AOH" (Two Parts)	Rs.5600/- (Inclusive of GST)	Rs.12,000/-	06 Months	10/04/2021 to 03/05/2021 (Hard & Soft copy only) Up to 3 PM	Up to 3:00 PM on 03/05/2021 3:30 PM onwards on 03/05/2021

- NB: a) Bidders having the requisite qualifying requirements specified in the bid document shall only be considered for the work.  
 b) Further please note to submit your offer considering GST provision and its related input tax credit benefits to be passed on to OPGC

Cost of bid document (non-refundable) shall be paid by Demand Draft in favour of OPGC Ltd. drawn on State Bank of India (Code-9510) / Union Bank of India (Code-UBIN0806625) / Central Bank of India (Code-283899) payable at ITPS, Banaharpali. Cost of bid document shall have to be submitted along with the bid and the DD towards the tender cost (separate from EMD) should be prepared on or before the last date of sale of tender, otherwise the bid shall be liable for rejection. In case of any discrepancy found between tender document submitted by the agency and the master copy in our office, the latter should prevail. No claim on this account shall be entertained. Complete and signed sealed bids in hard copy form only shall be received at Contract Cell, ITPS. Bids shall be opened at Contract Cell, ITPS in the presence of the bidders or their authorized representatives, if present at the time of opening. If the last date of issue / receipt / opening happens to be a HOLIDAY/office closed, the tender will be issued/ received / opened at the respective time on the next working day. The photocopies of all the supporting documents required for participating in the tender mentioned in NIT/Tender paper shall be submitted along with the bid; otherwise, the bid is liable for rejection. Bids without EMD will be rejected outright.

Bids received after stipulated date & time shall not be entertained. OPGC shall not take any liability on account of any postal/courier delay. OPGC reserves the right to accept / reject any or all tenders, seek additional clarifications, split up the scope among eligible bidders or cancel the tender altogether without assigning any reasons thereof.

N.B: For further details & downloading of Tender documents, please visit our web site [www.opgc.co.in](http://www.opgc.co.in).

Important: Agenda/Corrigenda/ Extensions, if any, will be notified on the OPGC website only and will not be published in any other media. Bidders are requested to visit our website regularly for any amendment of the present bid till finalization of bidding process.

Sd/- GM- SCM

SAFE & CLEAN POWER IS OUR COMMITMENT



Information to Bidders

- 1) The bids complete in all respect must be submitted in a sealed envelope super scribed with tender enquiry number, name of the work and due date of opening. Both the Techno-commercial & Price Bid in separate sealed cover shall be put in a sealed third envelope. The bid documents are not transferable. The bidder must submit the following along with the bid:
  - a) EMD of requisite amount as per NIT shall be put in a sealed envelope separately:
    - i) All Micro & Small Enterprises (MSEs) who are registered with DIC/KVIC/KVIB/Coir Board/NSIC/DHH/ Udyog Aadhar Memorandum are eligible to get the benefit of exemption from payment of EMD & Tender cost and to get the exemption, the participating bidders have to obtain/register as MSME for the specific service/supply of goods/both.
    - ii) To get the exemption of EMDs & tender fee, the party has to make an application to the head of supply chain management (SCM) who is conducting tendering process along with proof of documents regarding eligibility of the exemption at least 2 days before the last day of bid submission. The HOD after due examination will allow to participate without submission of EMD& tender fee & the same has to be communicated to bidder in writing.
  - b) Photocopies of Provident Fund Registration certificate, ESI Registration certificate, Income Tax PAN and GST certificate.
  - c) Bid documents duly signed & stamped in all pages as a token of acceptance.
  - d) In case of bidders submitting the documents downloaded from OPGC web site, the cost of bid documents (as per NIT) must be submitted (separately from EMD) in the form of Demand Draft. The draft towards cost of bid documents must be drawn on or before the last date of sale of bid documents.
  - e) Original price bid duly filled in, signed & stamped on each page shall be submitted. Any price breakup (if required) must be submitted separately. The rates offered by the bidder shall be clearly written in English (clearly hand written or typed) both in words and figures and shall be free from any aberrations, deletions, corrections and overwriting. In case of any illegibility of the offer submitted by bidder the interpretation by OPGC shall be final and binding on the bidder. Insertion, postscript, addition and alteration shall not be accepted after submission of the bid.

Note: Tenders submitted without the above requirements shall be liable for rejection.

- 2) Bidders are advised to submit the tender based strictly on the terms and conditions and specifications contained in the tender documents and not stipulate any deviations in normal case.
- 3) OPGC will award the contract to the successful bidder whose bid (offered/evaluated) has been found the lowest i.e., on L-1 basis.
- 4) OPGC reserves the right to evaluate the quotation on such deviations having financial implications by adding the cost determined by OPGC.
- 5) Wherever it is mentioned in the specification that the contractor shall perform certain work or provide certain facilities, it is understood that the contractor shall do so at his own cost.
- 6) Before quoting the rates, the Bidder should go through the specifications, scope of work, special condition of contracts etc. and get himself fully conversant with them. The bid should include cost of mobilization and cost to adhere to all safety norms as described in the tender & OPGC contractor safety management program document no.EM4/61 (PART A). No relaxation or request for revision of quoted/accepted rates shall be entertained subsequent to the opening of bid on account of mobilization or Safety costs.
- 7) The details of items in the price schedule shall be read in conjunction with the corresponding technical specifications. Items of work provided in the price schedule but not covered in the technical specifications shall be executed strictly as per instructions of Engineer in charge.
- 8) The Bidders shall quote rates inclusive of the complete cost towards consumables, tools and tackles, equipments, labour, levies, taxes and duties if any, all safety PPE's as per OPGC norms to all workmen, rectification, maintenance till handing over, supervision overheads, profits and all incidental charges not specifically mentioned but reasonably implied and necessary to complete the work according to contract.
- 9) OPGC reserves the rights of accepting the whole or any part of the tender and bidder shall be bound to perform the same at their quoted rates.

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GENERAL CONDITIONS OF CONTRACT



ODISHA POWER GENERATION CORPORATION LIMITED  
7<sup>TH</sup>. FLOOR, ZONE – A, FORTUNE TOWERS,  
CHANDRASEKHARPUR, BHUBANESWAR – 751 023  
(ODISHA)

1. Tenders are invited on behalf of the OPGC Ltd. for the work "Servicing and filtration of 10 Nos power transformer in both units during AOH" (Two Parts).
2. The Tender & rates shall be in the prescribed form provided by OPGC.
3. The works are required to be carried out for 06 Months.
4. Normally Bidders having corresponding class of license, PF Code, ESI Registration, Service Tax code, valid IT PAN & GST IN, expertise for the work required to be executed and financial capacity will be considered.
5. The person who floats the NIT shall be the Accepting Authority herein after referred to as such for the purpose of this Tender.
6. Applications for issue of tender documents shall be submitted to Accepting Authority so as to reach his office not later than dt.03/05/2021. (up to 3 PM)
7. A Bidder shall possess IT PAN, PF Registration certificate and GST IN.
8. Tender documents consisting of plans, drawings, specifications, Schedule(s) of Quantities / Price Schedule of various classes of work to be done, the Conditions of Contract and other necessary documents.
9. A Bidder should quote his rates in figures as well as in words. The amount for each item should be worked out and the requisite totals given. Special care shall be taken to write rates in figures as well as in words, and the amounts in figures only in such a way that interpolation is not possible. The total amount shall be written both in figures and in words. In case of figures, the words 'Rs.' should be written before the figure of rupees and the words 'Paise' after the decimal figures, e.g., Rs.2.15 P. In case of words, the words 'Rupees' should precede and the words 'Paise' should be written at the end. Unless the rate is in whole rupees and followed by the word 'Only' it should invariably be up to two places of decimal.
10. In the case of item rate Tenders, only rates quoted shall be considered. Any tender containing percentage below / above the schedule of rate quoted is liable to be rejected. In case of lump sum tenders, only quoted amount shall be considered.
11. Any Bidder for the works shall not be witness in the Bid of any other Bidder for the same works. Failure to observe this condition shall render the Tender of the Bidder tendering as well as of those witnessing the Tender liable for rejection.
12. Tender shall be received up to 3.00 P.M of dt. 03/05/2021 and shall be opened at 3.30 P.M on 03/05/2021 in presence of those Bidders or their duly authorized representatives who may like to be present.
13. The Tender shall be accompanied by Earnest Money @ Rs.12,000.00. The Earnest Money offered shall be in shape of Demand Draft/Pay Order in favor of ODISHA Power Generation Corporation Ltd. drawn on State Bank of India (Code-9510) / Union Bank of India (Code-UBIN0806625) / Central Bank of India (Code-283899).
14. The Tender shall be accompanied with letter of undertaking on non-judicial stamp paper of appropriate value in the prescribed format.
15. The Earnest Money shall be made payable without any condition/demure to the Owner on demand. The Earnest Money shall be valid for a period of 03 (Three) calendar months from the date of opening of the bid
16. In consideration of the Owner opening and considering the Tender for purpose of award of Contract, the Bidder shall keep his Tender valid for a period of One Eighty (180) days from the date of opening of the Tender, during which period the Bidder agrees not to vary, alter or revoke his Tender either in whole or in part. If the Bidder however, fails to keep his Tender valid for One Eighty (180) days or varies its terms and conditions during the said period then the Owner shall be entitled to forfeit the Earnest Money amount without any notice or proof of damages etc. The Bidder shall submit his Tender as required in the Tender documents along with letter of undertaking in the proforma enclosed herewith.
17. The Earnest Money of all unsuccessful Bidders will be returned within thirty (30) days after the award of the Contract.

18. Any Tender not accompanied with Earnest Money in accordance with aforesaid provisions shall be rejected by the Owner as non-responsive Bid.

19. No interest will be payable by the Owner on the said amount covered under Earnest Money / other security deposits.

20. On finalization of Tender, Earnest Money deposited in form of DD of successful Bidder will be treated as part of the initial security at the option of the said Contractor or shall be returned to the successful bidder at his option.

21. A Bidder shall submit the Tender which satisfies each and every condition laid down in this notice and other tender documents, failing which the Tender will be liable to be rejected.

22. The ODISHA Power Generation Corporation Ltd. do not bind themselves to accept the lowest or any tender or to give any reasons for their decision. The Owner reserves the right to allow the Public Sector Undertakings price preference facilities as admissible under existing Govt. policy. The prospective Bidders may apprise themselves of the relevant Govt. notification in this regard before submission of their bid. The ODISHA Power Generation Corporation Ltd. reserves the right of accepting the whole or any part of the Tender or split the total scope of work among eligible Bidders and Bidder (s) shall be bound to perform the same at his/their quoted rates.

23. Except GST, Work Contract Tax or any other tax on materials in respect of this Contract shall be payable by the Contractor except service tax which shall be extra as applicable.

24. The right to accept the Tender rests with the Owner. The Owner further does not bind himself to accept the lowest tender and reserves the authority to reject any or all the Tenders received without assigning any reason whatsoever. The whole work may be split up between two or more Contractors or accepted in part (not entirely) if considered expedient. The rates shall be the lowest/negotiated for such eventualities. Tenders in which any of the particulars and prescribed information is missing or incomplete in any respect and/or the prescribed conditions are not fulfilled are liable to be rejected. The decision of the Owner in respect of the above shall be final and binding on the Bidders.

25. In case Contractor's labour go on strike with advance notice as per rule, it is responsibility of the Contractor to mobilize such manpower from their other sites or otherwise and continue the work so that execution of Contract is not affected. In such an event, the failure to perform shall lead the Owner to get the work done by any other agency, but at the cost & risk of the Contractor. Further, the Contract shall be terminated with seven (7) days' notice in O&M Contract and the Contractor may be debarred from participating in any future Bid in OPGC Ltd. In case of construction work, non-adherence to schedule shall lead to cancellation of Contract or imposition of penalty at the discretion of the Engineer-in-charge. If the labours go on strike without prior notice, the situation shall be treated as force majeure provided nonperformance is for a reasonable period only. If the situation is beyond reasonable control of the Contractor but has taken appropriate steps as a man of common prudence would have taken in his own case, Owner may consider in case-to-case basis to either terminate the Contract or otherwise get the work done by other means but at the cost & risk of the Contractor. Only events of such illegal strike, which make the performance impossible at the time of occurrence and for a considerable time period for mobilization, shall be considered as force majeure.

The period of Contract shall be specified in the Special Conditions of Contract. The Contract period shall reckon from the date of issue of LOI. OPGCL reserves the right to withdraw any item(s) of works from the scope by serving a 7 days' notice to the Contractor without giving any reason for the same and take up the job departmentally or otherwise if performance of Contractor is found to be unsatisfactory. Value for the items of work thus withdrawn shall not be payable by the Owner. The Contractor shall not claim any compensation on this account. The period of Contract may be extended with mutual consent if the delay is beyond the control of Contractor at the discretion of the Engineer-in-charge.

#### 26. SUSPENSION OF WORKS:

The Contractor shall, on receipt of the order in writing of the Engineer-in-charge, suspend the progress of the works or any part thereof for such time and in such manner, as the Engineer-in-charge may consider necessary for any of the following reasons:

i) On account of any default on part of the Contractor; or

ii) For proper execution of the works or part thereof for reasons other than the default of the Contractor;

In any of the above cases the Contractor shall properly protect and secure the works to the extent necessary and carry out the instructions given on that behalf by the Engineer-in-charge during such suspension period.

27. The Contractor shall employ labor in sufficient numbers to maintain the required rate of progress / attend the repair-maintenance on its occurrence and of quality to ensure workmanship of the degree specified in the Contract and to the satisfaction of the Engineer-in-charge. The Contractor shall not employ in connection with the works any person who has not completed his/her eighteen years of age.

28. The Contractor shall in respect of labour employed by him or his subcontractors comply with or cause to be complied with the Contractors Labour Regulations.

29. At present Employees State Insurance (ESI) Act is applicable to IB TPS, Contractor shall be liable to pay his contribution and the employees' contribution to the State Insurance Scheme in respect of all labour employed by him for the execution of the Contract, in accordance with the provision of "The Employees State Insurance Act, 1948" as amended from time to time. In case, the Contractor fails to submit full details of his account of labour employed and the contribution payable, the Engineer-in-charge shall recover from the running bills of Contractor an amount of contribution as assessed by him. The amount so recovered shall be adjusted against the actual contribution payable for Employees State Insurance.

30. The Engineer-in-charge shall on a report having been made by an Inspecting Officer as defined in the Contractor Labour Regulations have been the power to deduct from the money due to the Contractor any sum required or estimated to be required for making good the loss suffered by a worker or worker by reason of non-fulfillment of the Conditions of the Contract for the benefit of workers, non-payment of wages or of deductions made from his or their wages which are not justified by the terms of the Contract or non-observance of the said Contractors Labour Regulations.

31. In the event of the Contractor committing a default or breach any of the provisions of the aforesaid Contractors Labour Regulations as amended from time to time or furnishing any information or submitting or filling any Form/Register/Slip under the provisions of these Regulations which is materially incorrect, then on the report of the Inspecting Officers as defined in the Contractors Labour Regulations the Contractor shall without prejudice to any other liability pay to the Owner a sum not exceeding Rs.500.00 as liquidated damages for every default, breach or furnishing, making, submitting, filling materially incorrect statement as may be fixed by the Engineer-in-charge and in the event of the Contractor's default continuing in this respect the liquidated damages may be enhanced to Rs.500.00 per day for each day of default subject to a maximum of ten percent of the contract value. The Engineer-in-charge shall deduct such amount from bills or security deposit of the Contractor and credit the same to the Welfare Fund constituted under Contract Labour (R&A) Act 1970. The decision of the Engineer-in-charge in this respect shall be final and binding.

32. Model Rules for Labour Welfare: The Contractor shall at his own expense comply with or cause to be complied with Model Rules for Labour Welfare. In case the Contractor fails to make arrangements as aforesaid, the Engineer-in-charge shall be entitled to do so and recover the cost thereof from the Contractor.

33. Safety code: The Contractor shall at his own expense arrange for the safety provisions.

34. REMOVAL OF WORKMEN:

The Contractor shall employ in and about the Execution of the works only such persons as are skilled and experienced in their several trades and the Engineer-in-charge shall be at liberty to object to and require the Contractor to remove from the works any person employed by the Contractor in or about the execution of the works who in the opinion of the Engineer-in-charge misconducts himself or is incompetent or negligent in the proper performance of his duties and such person shall not be again employed in the work without permission of the Engineer-in-charge.

35. WORK DURING NIGHT SUNDAYS AND HOLIDAYS: Subject to any provisions to the contrary contained in the Contract, none of the permanent works except emergency maintenance work & operation shall be carried out during night or on Sundays or on



authorized holidays without the permission in writing of the Engineer-in-charge. But in case of maintenance Contract, the Contractor shall be required to work any time any day as required by Engineer-in-charge.

**36. NEGOTIATION OF RATES:**

In case Owner finds the lowest price to be at higher side in consideration of market price of various inputs including labor component, may call the lowest Bidders for negotiation of price based on analysis of their rate etc.

**37. Payment of running bill:**

a) 90% payment along with 100% taxes & duties shall be released on monthly basis within 30 days from the date of submission of bills duly certified by EIC.

b) Balance 10% of basic order value will be released within 30 days after completion of the contract, clearance from EIC & production of statutory evidence towards payment/deposit of PF, leave salary, Bonus, Retrench benefit etc. of labor.

38. Any increase in minimum wages of labor by the Government of Odisha after bid submission date may be additionally reimbursed by OPGC on actual labor deployment basis subject to maximum of proportionate increase considering labor component as of bill value.

**39. LABOUR LAWS**

Contractor shall comply with all laws, ordinances, regulations and notification / instruction of Govt. concerning the health, wages, welfare, safety and employment and non-employment of his workers and shall exclusively bear the consequences of failure to comply therewith.

The following points are to be observed strictly by the Contractor.

i) No labor below the age of 18 (eighteen) years shall be employed on the work.

ii) The Contractor shall not pay less than the notified wages by the appropriate government towards minimum wages from time to time and must comply with Minimum Wages Act. The payment has to be made to the labors in the presence of authorized representative of the Owner / Engineer-in-charge.

iii) The Contractor shall at his expense comply with all labor laws and keep the Owner indemnified in respect thereof.

iv) The Contractor shall pay equal wages for men & women in accordance with Equal Remuneration Act 1976.

v) The Contractor under the Contract Labor (Regulation and Abolition) Act, shall have a valid Labor license from appropriate licensing authority prior to starting / within 15 days of commencement of the work under the Contract. Validity of the license shall be maintained till expiry of Contract period & its extension, if any.

vi) The Contractor shall employ labor in sufficient numbers to maintain the schedule of work and of quality to ensure workmanship of the degree specified in the Contract and to the satisfaction of the Engineer-in-charge.

vii) The Contractor shall furnish to the Engineer-in-charge at the interval of every 15 days a statement of the workmen employed on the works and also furnish information under rule 73 of ODISHA Contract Labor (R&A) Rule, 1975 or rules made there under.

**40. PREPARATION OF BID:**

The Bidder(s) shall submit the bid in two part, namely-

I) Techno commercial Bid and

II) Price bid

**PART-I: TECHNO-COMMERCIAL BID**

A complete set of original Tender documents as issued to the Bidder duly filled in as prescribed in different clauses of the Tender documents with signature & stamp in all pages as token of unconditional acceptance shall constitute Techno-commercial Bid.

The Bidder shall enclose the following & documents mentioned in qualifying criteria in this Bid.

a) Crossed Demand Draft for requisite amount drawn in favor of ODISHA Power Generation Corporation Ltd. in the manner prescribed above towards the Earnest Money and Tender cost without which the Tender will be summarily rejected.

b) Details of work order of similar nature and magnitude executed by the Bidder as per the qualifying criteria & other documents as specified in tender qualification criteria.

Note: If required additional sheet may be used to furnish all above information but in the format provided in General Conditions of Contract.

The techno-commercial bid with all its enclosures as mentioned should be put in an envelope, sealed & super scribed as "TECHNO-COMMERCIAL BID". This envelope must contain Name of the work, NIT No., Due date of opening and Name & Address of the Bidder on bottom left-hand corner of the cover.

**PART-II: PRICE BID**

Kindly submit the Price bid in a different envelope as per BOQ.

Price bids of only those bidders will be opened who meet as per qualification criteria given below. The Owner shall not entertain any correspondence with any Bidder in relation to the acceptance or rejection of any Price Bid.

For and on behalf of ODISHA Power Generation Corporation Ltd.

Signature...Sd/-

Designation: GM-SCM – Contract Cell Unit 3&4 , ITPS.

Date:

**QUALIFYING CRITERIA**

Name of work: "Servicing and filtration of 10 Nos power transformer in both units during AOH" (Two Parts).

Bidders having the following criteria shall only be considered to be qualified in the Techno-commercial Bid:

1. Experience of having successfully completed similar nature of works during last seven (07) years ending last day of month previous to the one in which applications are invited should be either of the following: -
  - i. Three similar completed works costing not less than the amount equal to Rs.3 Lakhs.  
'OR'
  - ii. Two similar completed works costing not less than the amount equal to Rs.5 Lakhs.  
'OR'
  - iii. Single similar completed work costing not less than the amount equal to Rs.10 Lakhs.

Definition of similar nature of work: - Similar nature of work means any type of work related to Servicing and filtration of power transformers.

2. Average Annual financial turnover during last three years (17-18, 18-19 & 19-20) should be Rs.15 Lakhs or more. Audited Balance Sheet and profit & Loss A/C must be submitted along with the Techno-commercial Bid. In case the account is not audited a certificate from a chartered accountant should be produced towards turnover.
3. The bidder must have own Provident Fund Registration certificate, ESI Registration certificate, Income Tax PAN and GST certificate. Photocopies of these documents must be submitted along with Techno-commercial Bid.

**NOTE:**

- 1)** The bidders who are found qualified in above will be invited for the opening of the price bids.
- 2)** All the above documents along with supporting documents to be enclosed in the Techno-Commercial Bid (PART-I).

Owner reserves the right to obtain necessary documents and also to assess the qualification of the Bidder, subsequent to submission of bid, as deemed necessary by Owner to establish bidder's qualification.

**SCOPE OF WORK FOR TRANSFORMER FILTRATION AND MAINTENANCE WORK**

<b>SI/No</b>	<b>Transformer detail</b>	<b>Job Description</b>	<b>Oil Qty</b>
1	Two no. 11/.415 KV, 270MVA, AFOF DYNI 1, Oil filled Transformer, Main oil tank capacity & OLTC tank capacity 61.2KL, Make: BHEL	<ol style="list-style-type: none"> <li>1. Transformer oil filtration.</li> <li>2. Items Conduct BDV test of top &amp; bottom sample of transformer oil, before &amp; after filtration and report submission</li> <li>3. NAS Filtration of transformer</li> </ol>	61.2KL X2 =122.4KL
2	Four Nos. 21/11 KV, 50MVA, ONAF DYNI 1, Oil filled Transformer, Main oil tank capacity & OLTC tank capacity 28.8KL, Make: BHEL	<ol style="list-style-type: none"> <li>1. Transformer oil filtration.</li> <li>2. Items Conduct BDV test of top &amp; bottom sample of transformer oil, before &amp; after filtration and report submission</li> <li>3. Transformer overhauling</li> <li>4. NAS Filtration of transformer</li> </ol>	28.8 KL X 4=115.2KL
3	Four nos. 11/3.3 KV , 16MVA, ONAN DYNI 1, Oil filled Transformer, Main oil tank capacity & OLTC tank capacity 11KL, Make : BHEL	<ol style="list-style-type: none"> <li>1. Transformer oil filtration.</li> <li>2. Items Conduct BDV test of top &amp; bottom sample of transformer oil, before &amp; after filtration and report submission</li> <li>3. Transformer overhauling</li> <li>4. NAS Filtration of transformer</li> </ol>	11KL X 4= 44KL

Total quantity of oil for filtration is 281.6KL and Extra of 10% oil for future use.

**The details of scope of work are as under.**

(1) The details of Transformer oil filtration of different transformers at both unit and total quantity in litres are as under: -

- (a) 270 MVA Generator Transformers of 21/400 KV in 02 Nos.
- (b) 50MVA Transformer of 21/11KV.....04 No.
- (c) 16MVA Transformer of 11/3.3KV ----- 04 Nos

Total Transformers: 10 Nos. in both unit and Total Quantity of TR. Oil to be filtered are **281.6KL + 10% Extra**, which kept in drums for further day-to-day maintenance works for OPGC. (Hence total quantity to be filtered = Approx. 300KL)

SL. No	Parameter of transformer oil	Acceptable limit
1	BDV Value	65KV in 2.5mm gap
2	Moisture content	>5 PPM
3	Particle count (NAS Value)	≥2 micron in 10000≤ particle/ml

**2) Transformer overhauling including Oil leakage to be attend in different transformers**

- a) Arresting the oil leakages from joints, RTD pockets & cooler radiator banks etc. wherever prevailing by tightening the bolts or replace the gaskets/ O rings.
- b) Checking, Cleaning & servicing of all bushings, Checking of terminal connectors of jumpers of HV bushings & LV Bushing.
- c) Servicing, greasing and changing of bearings of cooling fan & pump motors, if required.
- d) Transformer oil will be lower down below top tank level and kept in auxiliary tank if bushing and top cover inspection window leakage to be arrested.
- e) Damage gasket, bolt to be remove and replaced.
- f) Arresting the oil leakage by sealing with help of oil seal compounds. (Sealing compound will be in scope of OPGC).
- g) Filtration of main tank and auxiliary tank oil.
- h) Conservator flooding using nitrogen gas.
- i) Cleaning the area of oil leakage
- j) Deployment of experience manpower for gasket preparation and fixing oil leakage

**(3) Terms and Conditions: -**

- (i) The firm will have to attach their Electrical Contractor license.
- (ii) The firm will have to bring their best quality of oil filtration machine and NAS filtration machine, along with good quality of wires/cables for electrical connections for their M/C, along with necessary tools & tackles, required during execute the works. OPGC will arrange to give 3-Phase electrical supply to filtration M/C. free of cost. The firm will have to take every precaution, if any accident occurred during carry out the above works, then it will be total responsibility of the firm, OPGC will not responsible for it.
- (iii) The firm will have to make their own arrangements to bring their filtration machine. OPGC will not provide lodging & boarding facility to the firm.
- (iv) The firm will have to carry out the job works during working days in all Shifts. If it is necessary to continue the job work during Night Shift, the firm will have to seek prior approval from OPGC. The firm will have to start the work immediately, after receipt of purchase Order.
- (v) The firm will have to submit the BDV Test reports of top & bottom sample of transformer oil, before & after filtration of it for each transformer as per I.E. rule. The BDV test result should be 50 KV. / 2.5 mm sphere gap in oil testing kit.

- (vi) The total oil quantity is specified as above, however the quantity will be consider on actual for billing purpose.
- (vii) The firm will have to bring their own B.D.V. transformer oil test unit & acidity test kit. The B.D.V. test results may also be compared on currency note press's B.D.V. test unit. ACE
- (viii) Gasket, O-ring, sealant required for oil leakage attending process, will be in OPGC Scope.
- (ix) Nitrogen gas cylinder required for conservator flooding in OPGC scope.
- (x) Scaffolding required for oil leakage rectification job in transformer will in contractor scope.**
- (xi) Tarpaulin required for covering the transformer during filtration work will be in contractor scope**

### **SPECIAL TERMS AND CONDITION**

#### **A) TIME PERIOD:**

For Unit-3: 15 days (Tentatively in Aug-2021)

For Unit-4: 15 days (Tentatively in Sep-2021)

The schedule outage days mentioned are tentative and may vary as per the actual requirement / situation. The work shall be executed & completed as per the schedule. Contractor shall mobilize manpower, tools & tackles before 14 (Fourteen) days of commencement of overhauling works. During this mobilization period you shall arrange & complete issue of gate pass, safety training, health & medical check-up of your workmen and testing of tools & tackles.

However, the exact dates of commencement & completion of the work shall be intimated to you by the Engineer-in-charge.

#### **B) FAMILIARIZATION**

1. Contractor shall visit the site and make himself familiar with the site condition. If the contractor needs any technical details or additional information regarding equipment or work procedure in relation to the proposed work, he should do so before submitting the bid to OPGC.
2. It is imperative on each bidder to fully acquaint himself of all local conditions & factors, which may have effect on the execution of the work covered under the specifications. OPGC shall not entertain any request for clarifications from the bidder regarding such local conditions post-bid.
3. OPGC shall entertain no claim, whatsoever, nor any change in the time schedule of the contract there of which arise on account of clear information or its effect on the cost of works to the bidder.

#### **C) WORK MEASUREMENT:**

1. Measurement sheet shall be prepared after completion of each job as per direction of Engineer I Charge and signed by both Contractor & Engineer In charge or their authorized representatives as a token of acceptance.

**D) MANPOWER:**

1. The contractor shall deploy adequate manpower for execution of filtration and maintenance activity with required qualification and experience as mentioned in detail scope of work for smooth execution & In time completion of work.
2. In case owner is not satisfied by the performance/Conduct of any of the person, the same shall be immediately replaced by competent person.
3. The contractor shall deploy one site-in-charge.
4. One qualified Safety supervisor shall be deployed for overseeing the safety requirements of the works under the scope.
5. Only experienced, qualified and medically fit persons shall be deployed for specified jobs including working at height.
6. The name of the working personnel deployed by the contractor like site in charge, supervisors, Electricians, Fitters, scaffolders, Riggers, Helpers, etc with full detail (area of work, experience, specialization etc) has to be submitted to EIC before start of the work.
7. EIC shall be the final authority in deciding the competency of the deployed persons. OPGC reserves the right to instruct the agency for replacement of manpower if not found suitable for the work at any point of time during the contract period.
8. Lodging, boarding, transportation and local conveyance of their workmen shall be arranged by the contractor at their own cost.
9. The contractor may have to deploy the manpower round the clock to complete the job on time. But working hour for any gang shall not be more than 12 hours.

**NOTE:**

1. The Contractor shall appoint it's site-in-charge within Three (03) days of LOI date.
2. Site -in-charge should be technically qualified person and should have minimum 3 years of experience in similar jobs.
3. If any person not found suitable for the work and /or under stood to be unwanted in the opinion of OPGCL's Engineer, must be removed from the work immediately and shall not be engaged for the work in future.

**E) WORKMANSHIP**

1. The workmanship shall be best of its kind and shall be accordance with the satisfaction of EIC in every respect or latest trade practices and shall be subject to approval of the EIC.
2. All materials and/or Workmanship which in the opinion of the Engineer is defective or unsuitable shall be removed immediately from the site and shall be substituted with proper materials and / or workmanship forthwith.
3. All electrical works shall be carried out only by those Contractors who are licensed by the concerned local authorities to execute this type of work. Only "A" Class government approved electrical contractor shall execute the job.

**F) TOOLS & TACKLES/CONSUMABLES**

1. All required tools and tackles, Testing Kits if any, Electrical Extension Boxes, etc. should be mobilized at site at least 3 days before the commencement of AOH for safety inspection.
2. The contractor has to arrange the consumables like Diesel, Cleaners, CTC, Waste Cloth, marking cloth, Emery papers etc., The mentioned items are the indicative; however, Contractor has to arrange all consumables for completion of job as per scope of work.
3. Contractor should have adequate Tools and tackles for execution of the job. An indicative list of such Tools and tackles to be made available as mentioned in the Bid Document during the entire tenure of contract shall be submitted to the satisfaction of Engineer-in-charge. All Lifting Tools and Tackles brought by contractor shall have valid test certificate.

**G) PERMIT TO WORK:**

Before the start of each work, you shall ensure that a valid and duly signed Permit to Work has been issued. Also, you shall ensure the issue of valid and duly signed Confined Space permit and Hot Work.

**H) QUANTITY VARIATION/EXTRA ITEMS:**

- a) The quantity mentioned in the price schedule is tentative which may vary as per situational requirement. At any point of time, you shall be prepared to execute any quantity of the work at any location and at any height inside Plant area of Ib Thermal Power Station.
- b) Any item(s) which is not covered under the scope of work, but required to be executed for maintenance work, you shall execute the same at the schedule rate/approved rate of OPGC based on mutually agreed price.
- c) All required PPEs like Full Body Harness, the contractor at his own cost should provide Special Electrical Gloves etc.
- d) Party has to be mobilized minimum three days in advance before the actual start of the work for completion of process like Gate pass, site store fabrication etc. Fabrication of the Temporary site store at site is to be done by the party only. Suitable area will be allocated.
- e) The final Bill will be cleared only after receiving the complete report



**BOQ & PRICE BID FORMAT FOR SERVICING AND FILTRATION OF 10 NOS POWER TRANSFORMER IN BOTH UNITS DURING AOH:**

Sl. No	Service Description	UOM	QTY	Unit Rate	Total Amount
1	FILTRATION OF TRANSFORMER OIL FOR 270MVA	L	122,400		
2	NAS FILTRATION OF 270 MVA TRANSFORMER	L	122,400		
3	FILTRATION OF TRANSFORMER OIL FOR 50 MVA	L	57,600		
4	NAS FILTRATION OF 50MVA TRANSFORMER	L	57,600		
5	FILTRATION OF TRANSFORMER OIL FOR 16 MVA	L	22,000		
6	NAS FILTRATION OF 16MVA TRANSFORMER	L	22,000		
7	FILTRATION OF TRANSFORMER OIL FOR 50 MVA	L	57,600		
8	NAS FILTRATION OF 50MVA TRANSFORMER	L	57,600		
9	FILTRATION OF TRANSFORMER OIL FOR 16 MVA	L	22,000		
10	NAS FILTRATION OF 16MVA TRANSFORMER	L	22,000		
11	FILTRATION OF TRANSFORMER OIL	L	25,000		
12	SERVICING OF UT-50MVA	NO	2		
13	SERVICING OF UAT-16MVA	NO	2		
14	SERVICING OF UT-50MVA	NO	2		
15	SERVICING OF UAT-16MVA	NO	2		
<b>Total Price in Rs. (GST Shall be Extra as applicable)</b>					