

Section I - NOTICE INVITING TENDER

ABRIDGED NOTICE INVITING TENDER

WBSETCL

(A Govt of West Bengal Enterprise)

[TR(O&M) Department, Vidyut Bhavan, Kolkata]

NOTICE INVITING TENDERS

For

Repairing, Inspection and Testing of 2nos, BHEL make, 160MVA Transformers including to & fro transportation.

[Domestic Competitive Bidding]

West Bengal State Electricity Transmission Company Limited herein referred to as **WBSETCL** invites sealed bids through Domestic Competitive Bidding (DCB) from eligible bidders for **Repairing , Inspection and Testing of 2nos, BHEL make, 160MVA Transformers including to & fro transportation.** against **NIT. NO. - CETR(O&M)/160 MVA Transformer/Repairing/ Domjur/2015-16/18, dated : 20.01.2016**

Bid documents shall be on sale from 25.01.2016 to 02.02.2016 on all working days (except Saturdays) between 11.00 A.M to 3.00 P.M.

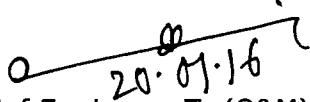
Pre-bid discussion will be held at 02:30 p.m. on 12.02.16 in the meeting room of the Office of the Chief Engineer, Transmission (O&M) , WBSETCL.

The last date of submission of Bids is 26.02.2016 upto 12:30 p.m. and opening of techno-commercial Bids will be on 27.02.2016 at 11:30 p.m.

Price bid opening will be intimated later on.

Interested bidders shall obtain detailed N.I.T and bidding documents from the Chief Engineer, Transmission (O&M) , Bidyut Bhaban, 10th floor, Block- 'D', Salt Lake City , Kolkata- 91, Tele : 033 2359-1895, Fax : 033-2359- 1892.

Detailed NIT is available at WBSETCL website (www.wbsetcl.in) and can be downloaded from the website from 19.01.2016 for bidder's information.


Chief Engineer: Tr (O&M)

DETAILED NOTICE INVITING TENDER

WEST BENGAL STATE ELECTRICITY TRANSMISSION COMPANY LIMITED

(A Govt of West Bengal Enterprise)

[TR(O&M) Department, Kolkata]

Repairing , Inspection and Testing of 2nos, BHEL make, 160MVA Transformers including to & fro transportation. [Domestic Competitive Bidding]

1.0 West Bengal State Electricity Transmission Company Limited herein referred to as **WBSETCL** invites sealed bids through Domestic Competitive Bidding (DCB) from eligible bidders for **Repairing , Inspection and Testing of 2nos, BHEL make, 160MVA Transformers including to & fro transportation.** against **NIT. NO. - CETR(O&M)/160 MVA transformer/Repairing/Domjur/2015-16/18 , dated : 18.01.2016**

2.0 WBSETCL intends to finance this package through own fund.

3.0 Detailed Specification , scope of work and conditions are given in the bidding documents as per the following schedule :

Sl. No.	Particulars	Date & Time
1	Bidding document No	CETR(O&M)/160 MVA TR/Repairing / Domjur/2015-16/18, dated : 20.01.2016
2.	Start Date of collection of bid documents on submission of Tender Fees	25.01.2016 from 11:00 AM
3	Start date of hard copy submission of clarification/pre-bid queries/proposed modifications/additional information	30.01.2016 from 3.00 P.M.
4.	Last Date of collection of bid documents on submission of Tender Fees	02.02.2016 upto 02:00 PM
3	Site visit for bidders	10.02.2016 from 10:00 AM to 05:00 PM
4	Closing date of hard copy submission of clarification/pre-bid queries/proposed modifications / additional information (if any)	11.02.2016 up to 2.00 P.M.
5	Pre bid meeting to be held at Office of the Chief Engineer : TR(O&M), 10 th Floor, D-Block Bidyut Bhawan.	12.02.2016 at 2:30 P.M.
6	Bid Submission closing	26.02.2016 up to 12.30 P.M.
7	Bid opening date for Technical Proposals	27.02.2016 up to 11:30 P.M.
8	Date for opening of Financial Proposal	Will be notified in due course.
9.	Cost of Bidding Document	Rs 5000/- (Rs Five Thousand Only)

4.0 A complete set of bidding documents may be collected by any interested bidder against submission of Cost of the Bidding document (non-refundable) as mentioned above in the form of a Demand Draft/Pay Order/Banker's Cheque drawn in favour of "WEST BENGAL STATE ELECTRICITY TRANSMISSION COMPANY LIMITED" from any scheduled bank payable at Kolkata shall have to be deposited physically at the office the Chief Engineer TR(O&M), D- Block, 10th Floor, WBSETCL, Bidyut Bhawan on or before 02.02.2016 up to 2.00 P.M. Issue of the bidding

documents shall not automatically construe that the bidder fulfils the Qualifying Requirements which shall be determined during bid evaluation based on data/documents uploaded by the bidder

5.0 All bids must be accompanied by bid security for an amount of **Rs 2.61 Lakhs [Rupees Two lac and Sixty One Thousand Only]** in the form of Demand Draft /Pay order /banker's Cheque/ Bank Guarantee and shall remain valid for a period of 240 days from the date of opening of Bids with a claim period of another 90 days thereafter. Bidders must submit the Bid security physically within the stipulated date as above at the office of the Chief Engineer : TR(O&M), 10th Floor, D-Block, Bidyut Bhavan and also to be documented along with the bid and submitted online. Non submission of the acceptable bid security along with prescribed cost of bidding documents as specified here, in a sealed cover or submission of bid security and cost of bidding document of inadequate value shall be rejected by the WBSETCL and in such cases bids shall be considered as non responsive.

6.0 Qualifying Requirement for bidders:

In addition to the requirements stipulated under Section-II, Instruction to Bidders (ITB), the following shall also apply:

6.1 Technical QR:

6.1.1 Bidders **shall** be original transformer manufacturers / repairers having all infrastructural capacity and must have successfully repaired or supplied at least 01(one) no. of such 220/132KV or 220/33 KV Transformer in any India Power Utility within the last 03(three) years. And the same Transformer must be in successful operation for at least 01 (one) year in any India Power Utility as on date of NIT

6.1.2 In **addition** to above, the bidder must have stage inspection and all testing facilities at their works as on date of NIT.

6.2 Financial QR:

6.2.1 The Minimum Average Annual Turnover (MAAT) of the Bidder for the best 3 (three) years out of the last 5 (five) financial years for which the audited accounts are available shall not be less than Rs.. 391.00 Lac. (Rupees Three Crore Ninety One Lakh)

6.2.2 Net worth at the end of last financial year shall be positive.

6.2.3 Bidder shall have Liquid Asset (L.A) and /or evidence of access to or availability of credit facilities of equivalent amount not less than Rs 66.00 lakh (Rupees Sixty Three lakh only).

N.B. – Liquid Asset shall mean cash & bank balances and fixed deposits in the name of bidder as certified by a chartered Accountant on a date not more than one month before the bid opening date.

(The above information is to be supported by certificate stating successful delivery after manufacturing or repairing and satisfactory performance certificate of the delivered Transformer)

6.3 **Personal Capability**

Qualifier, experience and efficient engineer should supervise the various activities such as dismantling of core & winding, repairing, assembling, de-hydration , testing, loading, unloading at works etc.

7.0 The bidder shall furnish, as part of his techno-commercial bid, documents establishing the bidder's qualifications to execute the Order to the satisfaction of the Purchaser. All documents required to establish bidder's financial and Technical qualification must be submitted as part of techno-commercial bid. In particular, the following documents need to be submitted by the bidder:

- a. Documentary evidence regarding category of the manufacturer (Micro / Small / Medium / Large) like Registration Certificate issued by SSI / NSIC / Directorate of Industries etc.
- b. List of purchase order references for similar work in the past three (3) with copies of un-priced/priced purchase orders and execution status of each order supported by duly acknowledged delivery Challan or excise duty gate passes or, client's certificate.
- c. Confirmation regarding availability of in-house inspection/ testing facilities.
- d. Performance Certificates from the user for successful operation of similar equipment.
- e. Copies of Type Test Certificate of the Equipment / Materials **included in the scope of supply** as per relevant IS / IEC.
- f. Audited Annual Accounts of the company for the last three (3) years (in case of companies)
or
IT Return duly acknowledged by the tax department for the last three (3) years (in case of bidders other than companies)
- g. Copies of TAN Card, Excise registration certificate, valid Sales Tax / VAT registration certificate.

7.1 In addition to above, the bidder shall also be required to meet the eligibility conditions and submit an affidavit as per Annexure: 6 of Section V-A of the bidding documents

7.2 Notwithstanding anything stated herein, WBSETCL reserves the right to inquire and review the bidder's capability and capacity to supply the Equipment / Materials.

8.0 WBSETCL reserves the right to accept or reject any bid partly or fully or cancel the bidding process without assigning any reasons thereof and in such case no bidder shall have any claim arising out of such action.

9.0 **Delivery Schedule**

The delivery schedule given hereunder is inclusive of the period required for conducting type tests, if so required by the Purchaser.

- a) The manufacturer/repairer will take up transportation of the transformers from site to their works within 30 (thirty) days from the date of placement of LOA.

- b) All new windings and other components to be supplied /manufactured are to be offered for inspection along with stage inspection within 90 (Ninety) days from the date of issue of LOA for both the Transformers.
- c) The **1st Unit** of the repaired transformer to be offered for final inspection within 30 (Thirty) days from the date of stage inspection
- d) The **2nd Unit** to be offered for final inspection within 15 (fifteen) days after completion of final inspection of the 1st Unit.
- e) The transformers to be dispatched to WBSETCL site (anywhere in West Bengal, except Hills) within 30(thirty) days from the date of issue of MICC-Cum-DI.
- 1st Unit of the transformer is to be delivered after completion of joint internal inspection of the transformers at factory within 150 (One hundred and Fifty) days from the date of issue of LOA
 - 2nd Unit of the transformer is to be delivered after completion of joint internal inspection of the transformers at factory within 165 (One Hundred and Sixty Five) days from the date of issue of LOA

10. Name Plate details of BHEL make 160 MVA, 220/132/33KV Transformers

(I) UNIT-I : Serial no: 2015538.

AUTO TRANSFORMER

INDIAN STANDARD: 2026

TYPE OF COOLING	OFAF	ONAF	ONAN
1. RATING HV & IV(MVA)	160	128	96
2.RATING LV (MVA)	54	36	27
3.NO-LOAD VOLTAGE HV(KV)	220	220	220
4.NO-LOAD VOLTAGE IV(KV)	132	132	132
5.NO-LOAD VOLTAGE LV(KV)	33	33	33
6.LINE CURRENT HV(A)	420.39	336.31	252.23
7.LINE CURRENT IV(A)	700.65	560.52	420.39
8.LINE CURRENT LV(A)	788.23	630.58	472.94
9.TEMPARATURE RISE OIL(°C)	50	50	50
10.TEMPARATURE RISE WINDING(°C)	55	55	55
11.PHASE	3		
12.FREQUENCY(HZ)	50		
13.CONNECTION SYMBOLE	YNa0d11		
14.IMPEDENCE VOLTS% HV-IV	12.5+IS TOL. GUARANTED AT N TAP		
15.MANUFACTURING UNIT	JHANSI		
16.INSULATION LEVEL			
a. HV	950KVp/395KV rms		
b. IV	550KVp/230KV rms		
c. LV	170KVp/70KV rms		
d.NEUTRAL	38KV rms		
17.MAKER'S SERIAL NO.	2015538		
18.ELEC. SPEC. NO.	625822		
19.YEAR OF MANUFACTURE	2004		
20. DIAGRAM DRG. NO.	14621950171		
21. O.G.A. DRG. NO.	04620050059		
22.CORE & WINDING(Kg)	67000		
23.WEIGHT OF OIL(Kg)	47170		
24.TOTAL WEIGHT(Kg)	158000		
25.OIL QUANTITY(Ltrs)	53000		
26.TRANSPORT WEIGHT GAS FILLED(Kg)	82000		
27.UN-TANKING WEIGHT(Kg)	67000		
28.P.O.NO.:	P&S/P-55/2001(PC-II)/18P5Dt:03.06.2003		
29.DATE OF COMMISSIONING	19.07.2004		

(II) UNIT-II, Serial No. 2013683

AUTO TRANSFORMER		INDIAN STANDARD 2026		
TYPE OF COOLING	OFAF	ONAF	ONAN	
1. RATING HV & IV(MVA)	160	128	96	
2. RATING LV (MVA)	54	36	27	
3. NO-LOAD VOLTAGE HV(KV)	220	220	220	
4. NO-LOAD VOLTAGE IV(KV)	132	132	132	
5. NO-LOAD VOLTAGE LV(KV)	33	33	33	
6. LINE CURRENT HV(A)	420.39	336.31	252.23	
7. LINE CURRENT IV(A)	700.65	560.52	420.39	
8. LINE CURRENT LV(A)	788.23	630.58	472.94	
9. TEMPERATURE RISE OIL(°C)	50	50	50	
10. TEMPERATURE RISE WINDING(°C)	55	55	55	
11. PHASE	3			
12. FREQUENCY(HZ)	50			
13. CONNECTION SYMBOLE	YNa0d11			
14. IMPEDENCE VOLTS% HV-IV	12.5+IS TOL. GUARANTEED AT N TAP			
15. MANUFACTURING UNIT	JHANSI			
16. INSULATION LEVEL				
a. HV	950KVp/395KV rms			
b. IV	550KVp/230KV rms			
c. LV	170KVp/70KV rms			
d. NEUTRAL	38KV rms			
17. MAKER'S SERIAL NO.	2013683			
18. ELEC. SPEC. NO.	625822			
19. YEAR OF MANUFACTURE	2002			
20. DIAGRAM DRG. NO.	14621950130			
21. O.G.A. DRG. NO.	04620050049			
22. CORE & WINDING(Kg)	67000			
23. WEIGHT OF OIL(Kg)	47170			
24. TOTAL WEIGHT(Kg)	158000			
25. OIL QUANTITY(Ltrs)	53000			
26. TRANSPORT WEIGHT GAS FILLED(Kg)	82000			
27. UN-TANKING WEIGHT(Kg)	67000			
28. LOA NO.:	TR/JBIC/LOT-III/SUPPLY/172Dt:27.03.2000 TR/JBIC/LOT-IV/SUPPLY/174Dt:27.03.2000			
29. DATE OF COMMISSIONING	28.09.2003			

11.0 Technical know-how: Qualified, experienced and efficient engineer should supervise the various activities such as dismantling of core & windings, repairing, assembling, dehydration, testing, loading, unloading at works etc. Date-wise record of various activities should be maintained by you.

12.0 Methodology for repair of 2(two) no. BHEL make, 160MVA, 220/132/33KV Transformers.

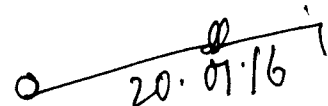
- I. As both the transformers are of BHEL make having same rating & design. Both the transformers have suffered internal damage shall be repaired by replacement of the winding of the Transformers and replacement of the Transformer oil and other materials as per the schedule. Balance materials required for its repairing if any, are to be supplied by the manufacturer/repairer after necessary assessment prior to the submission of the bid.
- II. Before submission of bids, the bidders will carry out Physical (both internal & external) inspection of both the transformers at Domjur 220 kV sub-station with their representative. Inspection is to be done in the presence of WBSETCL officials. The bidders may also carry out necessary testing at Site. Necessary assistance with the instruments available at site may be used by the bidder to access the healthiness of the available accessories. All testing instruments required for the tests shall be provided by the bidder. However, the bidders may utilize testing instruments of WBSETCL as per their requirement if available at site. The inspection & testing of the transformers shall be completed within a maximum of 2(two) days. 'To & fro' conveyance, boarding, lodging etc. shall be borne by the bidders.
- III. **Date of inspection and testing of the transformers shall be decided by tendering authority, WBSETCL as per request from the intending bidder before scheduled pre-bid meeting**
- IV. Loading of defective transformer from plinth to trailer by repairer.
- V. Transportation of defective transformer (without oil) & accessories from site to the works by repairer.
- VI. Unloading of defective transformer from trailer to shop floor of works by repairer.
- VII. Insurance of whole transformers during above work to be taken by repairer from reputed insurance company.
- VIII. **Inspection of 2x160MVA transformers at the works in presence of WBSETCL officials:**
 - a. Checking & testing of all accessories.

- b. Assessment of good/healthy materials and other accessories that could be utilized the defective transformers and assessment of balance materials to be supplied/ manufactured by the bidder required for repairing of the transformer units.
- 13.0 **Stage inspection:** Assembly of new windings / good winding(s) of the defective transformer unit with all new insulating materials over the core, refilling of laminations after cleaning, changing of insulating materials between top & bottom yoke to yoke channels. Low Voltage testing of the Windings in presence of WBSETCL official. Preparation of MOM.
- 14.0 Making connection including leads, tap leads, soldering, brazing etc.
- 15.0 Replacement of all Gaskets, oil seals etc by new one
- 16.0 Vapour phase drying of complete Core-coil assembly & OLTC under vacuum oven - 760 mm of Hg pressure so as to achieve proper IR values and Tan Delta Values and oil impregnation of core & Winding.
- 17.0 Overhauling (which includes checking, cleaning, servicing & minor repairing) of all accessories transported to repairer's works such as OLTC, valves, relays, Conservator, Radiators, Bushings, Bushing rods, connector, RTCC panel etc.
- 18.0 Oil filtration, Final inspection & Testing: Tanking of transformer with dried core-coil assembly, fresh transformer oil filling through filter machine (filter machine should conform to IS 6034/1974, or with latest amendment, if any) and assembling of accessories.
- 19.0 Complete Routine Testing of the Transformer as per latest IS: 2026 as per the attached list. Preparation of MOM.
- 20.0 Painting of transformer tank & accessories after final testing.
- 21.0 Proper sealing to be provided at all outlets / joints of transformer by repairer.
- 22.0 Loading of transformer and accessories on the trailer & truck and welding of transformer by repairer. SFRA to be taken by the repairer before loading of the repaired transformer on trailer.
- 23.0 Transportation of transformer from works to site by repairer. Responsible representative of repairer to be deputed during transportation of transformer and accessories.
- 24.0 Unloading of transformer on plinth from trailer by repairer including necessary dragging of the main tank.
- 25.0 Tan delta of windings and all bushings including SFRA to be taken by the repairer before commissioning of the transformer at site.

- 26.0 Low voltage testing of the repaired transformer by WBSETCL in presence of repairer and commissioning thereof. Repairer is fully responsible for certifying the transformer test results before commissioning of repaired transformer.
- 27.0 **COST OF NEW & OLD WINDINGS:** All windings to be supplied shall be manufactured from new copper conductor and new insulating materials. The size and type of new copper conductor should be as per original windings. The dimensions (ID, OD, Height, number of turns etc) of the new windings should be as per original windings. A sketch indicating details of outer and inner diameter, size and type of conductor, type of winding, thickness & size of core laminations with limbs and window dimensions shall be made by the repairer. A copy of the same should be sent along with MOM of Stage Inspection.
- 28.0 All defective/damaged windings shall be retained by the repairer. All defective/damaged windings along with other damaged insulating materials shall be cut into small pieces and destroyed / crushed in presence of WBSETCL Engineer. Repairer has to take the photographs of above destroyed scrap windings & the same should be handed over to WBSETCL officials.
- 29.0 If any old windings are manufactured from CTC conductor, then it should be replaced with new windings manufactured from CTC conductor only.
- 30.0 Address for seeking clarification of Bid documents: Office of the Chief Engineer: Tr (O&M), WBSETCL 10th Floor, Block-'D', Vidyut Bhavan, Saltlake, Kolkata-700 091.
- 31.0 Address for Communication :
- The Chief Engineer: Tr(O&M) Department,
10th.Floor, 'D' Block,
Vidyut Bhavan,
Block-DJ, Sector-II,
Salt Lake, Kolkata - 700091.

WEST BENGAL STATE ELECTRICITY TRANSMISSION COMPANY LIMITED

FAX : 033-2359-1892
Telephone : 033-2359-1895
E-mail : cetr1955@gmail.com
Website : www.wbsetcl.in

A handwritten signature and the date "20.01.16" are written in black ink.

Chief Engineer: Tr (O&M)