HLL LIFE CARE LIMITED

(A Government of India Enterprise)

P.B.NO. 2, PEROORKADA.P.O.,

THIRUVANANTHAPURAM - 695 005

KERALA, INDIA

INVITATION FOR BIDS (IFB)

(TECHNICAL BID & PRICE BID)

SUPPLY, INSTALLATION, TESTING AND COMMISSIONING OF THREE PHASE OIL IMMERSED DISTRIBUTION TRANSFORMER 1250kVA, 11kV/433-250V

AT

PEROORKADA FACTORY, THIRUVANANTHAPURAM, KERALA, INDIA

TENDER NO. : PUR/08/R1/PQ/TRANSFORMER/2013-14

HLL LIFECARE LTD

(A GOVERNEMENT OF INDIA ENTERPRISE)

P.B.NO.2, PEROORKADA.P.O.

THIRUVANANTHAPURAM – 695 005

KERALA, INDIA

Email: materialsnft@gmail.com, materialspft@lifecarehll.com

Ph. (++ 91 471) 2437270, 2435325

Fax: (++ 91 471) 2435013

INVITATION FOR BIDS (IFB)

Tender no. : PUR/08/R1/PQ/ TRANSFORMER /2013-14

Date : 27/06/2013

HLL Lifecare Limited (HLL) invites sealed and super scribed bids under two bid system (Technical & Price bid) for Supply, Installation, Testing, Validation and Commissioning of INDOOR TYPE THREE PHASE OIL IMMERSED DISTRIBUTION TRANSFORMER 1250kVA,11kV/433-250V at HLL Lifecare Limited, Peroorkada Factory, Thiruvananthapuram.

The technical specification and other terms and conditions are given in the Tender documents, which can be had from our Website at www.lifecarehll.com & CPP portal (www.eprocure.gov.in). The tenderers can download the documents from our website & CPP portal and in such case the tender fee of Rs. 520/-should be paid by way of DD along with technical bid.

The Bidder is expected to examine the specifications and terms and conditions in the Bid Documents.

Any subsequent changes / amendments will be published only in our website & CPP portal.

Completed tenders in sealed cover superscribed with Tender No. should reach latest by 18/07/2013; 2.00 P.M. at the following address

Joint General Manager (Purchase)
HLL Lifecare Limited,
P.B.No. 2,
Peroorkada P.O.,
Thiruvananthapuram -- 695005
Kerala. India.
Ph. (++ 91 471) 2437270,2433459,2435325
Fax: (++ 91 471) 2435013

The scheduled date for issue, receipt and opening of bids is as follows.

a) Date of issue of tender document - 27/06/2013 onwards.
b) Last date and time for receipt of bids - 18/07/2013 to 14.00 Hrs.
c) Date and time of opening of Technical bids - 18/07/2013, 15.30 Hrs.

Bids will be opened in the presence of Bidders representative(s) who choose to attend on the specified date and time, at the office of HLL at the address given above.

In the event of the date specified for bid receipt and opening being declared as a closed holiday for HLL's office, the due date for submission of bids and opening of bids will be the following working day at the appointed times.

HLL may, at its discretion, extend this deadline for submission of bids by amending the Bid Documents or any other reasons, in which case all rights and obligations of the HLL and Bidders previously subject to the deadline will thereafter be subject to the deadline as extended. HLL will not be held responsible for the postal delay, if any, in the delivery of the bidding document or the non-receipt of the same. Bids sent by email will not be accepted. The company reserves the right to club or split the items of works, change the qualifying criteria at their discretion and to reject or cancel the tender without assigning any reason there of.

JOINT GENERAL MANAGER (PURCHASE)

HLL LIFECARE LIMITED

(A Government of India Enterprise)

THIRUVANANTHAPURAM-695 005, KERALA, INDIA

CONTENTS OF BIDDING DOCUMENTS

I. INSTRUCTION TO BIDDERS:

II. TECHNICAL BID FORMS

1. Schedule A - Specifications
2. Schedule B - Prequalification Requirements
3. Schedule C - Application for Prequalification
4. Schedule D - Details of major installations (min 3nos.) of similar work completed successfully as prime contractor during the last 3 years
5. Schedule E -Details of ongoing installations or orders in hand for similar works
6. Schedule F - Technical Specification
7. Schedule G - Acceptance form
7. Schedule H - Terms and conditions
8. Schedule I - Certificate

III. PRICE BID FORMS

1. SCHEDULE J - Rate Schedule for supply, installation, testing, validation and commissioning of indoor type three phase oil immersed distribution transformer 1250kVA,11kV/433-250V

HLL LIFECARE LIMITED

(A Government of India Enterprise)

THIRUVANANTHAPURAM-695 005, KERALA, INDIA

INSTRUCTIONS TO BIDDERS

1. The Bid is intended to procure material as per specification in Schedule-A.

2. The Bid comprises of two parts:
   A. Technical Bid
   B. Price Bid

3. The Technical Bid must be accompanied by EMD of INR 60,000/- by way of Demand Draft drawn in favour of M/s.HLL LIFECARE LIMITED (HLL) and payable at Thiruvananthapuram, India

4. Both the Bids shall be submitted in sealed covers separately. Tender Nos. of the Technical and Price Bids shall be superscribed on the respective covers in order to clearly identify between the two Bids. The two separately marked Bids enclosed in a single sealed cover with the respective Tender No. mentioned thereon, complete in all respect, addressed to the Joint General Manager (Purchase) HLL LIFECARE LIMITED, Peroorkada P.O., Thiruvananthapuram – 695005, Kerala, India should reach us on or before the due date and time mentioned in the Tender Notification. HLL shall not be responsible for any delay, if any, in the delivery of the bidding document or non-receipt of the same.

5. a. The last date of receipt of Techno-Commercial Bid:18/07/2013;14.00 Hrs.
   b. Date of Opening of Technical Bid : 18/07/2013; 15.30 Hrs.

HLL LIFECARE LIMITED
(A Government of India Enterprise)
THIRUVANANTHAPURAM-695 005, KERALA, INDIA

INSTRUCTIONS TO BIDDERS

6. In the event of the date mentioned above being declared subsequently as holiday for the purchaser's office, the due date for submission and opening of bids will be the next working day at the same venue and time.

7. Bids received after the deadline for submission shall not be considered.

8. SECURITY DEPOSIT:

The successful bidder is required to furnish Security Deposit in the form of Demand Draft, drawn in favour of HLL Lifecare Ltd., payable at Thiruvananthapuram OR a Bank Guarantee for an amount equivalent to 5% of the total order value. The EMD of successful bidders will be converted to Security Deposit and will be refunded at the end of contract period. The successful bidder shall arrange for balance after adjusting the EMD amount. Security Deposit shall be retained (B.G. should remain valid) until successful completion of the contract and acceptance of the machinery/works by the purchaser. The Security Deposit will be released against performance guarantee for an amount equivalent to 10% of the total order value, in the form of Demand Draft/TT or Bank Guarantee by the supplier.

9. The successful bidder shall forward Security Deposit within 21 days from the date of receipt of the order in the form of Demand Draft OR Bank Guarantee.

HLL LIFECARE LIMITED
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THIRUVANANTHAPURAM-695 005, KERALA, INDIA

INSTRUCTIONS TO BIDDERS

10. The Bidder is expected to examine all specifications, Instructions, Forms, terms and conditions given in the Bidding documents. Failure to furnish all information required in the Bidding documents or submission of a Bid not substantially responsive to the bidding documents in every respect will be at the Bidders risk and may result in rejection of the Bid. Any clarification required will have to be obtained one week prior to the date of opening of the "Technical bid".

11. A Certificate/Declaration as given in Schedule I stating that **ALL TERMS AND CONDITIONS** of this Tender is acceptable should accompany the tender failing which the tender is likely to be summarily rejected.

12. **The Price Bid of those Tenderers who qualify in the Technical Bid only will be opened. The date and time of opening of price bid will be intimated separately. The Price Bids of Tenderers who do not qualify shall be returned unopened.**

13. The EMD may be forfeited:

(a) If a Bidder withdraws its bid during the period of bid validity specified by the Bidder on the Bid Document; or

(b) In case of the successful Bidder, if the Bidder fails:
(i) to sign the agreement.
(ii) to furnish security deposit.
(iii) does not accept the correction of his bid price pointed out by HLL

14 A complete set of bid document can be downloaded from the website www.lifecarehll.com. For any clarifications connected to the tender, please contact

Joint General Manager (Purchase),
Phone No. +91 – 471-2435325,
Email: materialspft@lifecarehll.com, materialsnft@gmail.com

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HLL LIFECARE LIMITED
(A Government of India Enterprise)
THIRUVANANTHAPURAM-695 005, KERALA, INDIA

TENDER NO. : PUR/08/R1/PQ/ TRANSFORMER /2013-14

SUPPLY, INSTALLATION, TESTING AND COMMISSIONING OF THREE PHASE OIL IMMERSED DISTRIBUTION TRANSFORMER 1250kVA, 11kV/433-250V AT PEROORKADA FACTORY, TRIVANDRUM, KERALA, INDIA

SPECIFICATIONS:

Supply of 1 No of 1250kVA , 11kV/433V , 3 Phase, 50 Hz ONAN Copper Wound OLTC Transformer with Tapings from +5% to -15% in steps of 1.25 % . The transformer shall have Cable Box on HT Side (Bottom Entry) and Bus Duct on LT side (Top Entry/Side Entry) having Vector Group as Dyn11. The transformer shall have all standard fittings and additional fittings as mentioned below.

1. Winding Temperature Indicator
2. Oil Temperature Indicator
3. Magnetic Oil Gauge
4. Bi-Directional Rollers
5. Dial Type Thermometer
6. Buchholz Relay
7. Surge Relay
8. Marshalling Box

Supply shall be made within 3 months from the date of placement of purchase order.

TECHNICAL SPECIFICATION FOR INDOOR TYPE THREE PHASE OIL IMMERSED DISTRIBUTION TRANSFORMERS 1250kVA, 11 kV/433-250 V

RECOMMENDED MAKES		
SL.NO	**DESCRIPTION**	**MAKE**
1	Transformer	GE/ ABB / CROMPTON GREAVES / KEL/ Vijay Electricals
2	OLTC	GE/ ABB / OLG

The transformer shall comply with the requirements as per latest amendments in IS 2026 and should be suitable for service under conditions of voltage and frequency fluctuations permissible under Indian Electricity Act and rules there under, whichever is more stringent.

SERVICE CONDITIONS

The Distribution Transformers to be supplied against this Specification shall be suitable for satisfactory continuous operation under the following climatic conditions as per IS 2026 (Part - I)

i) Location: **TRIVANDRUM, KERALA**

ii) Maximum ambient air temperature: **45deg. C**

iii) Minimum ambient air temperature: **25deg. C**

iv) Maximum average daily ambient air temperature: **35deg. C**

v) Maximum yearly weighted average ambient temperature: **32deg. C**

PRINCIPAL PARAMETERS:

The transformers shall be suitable for indoor installation with three phase, 50Hz, 11 kV system in which the neutral is effectively earthed and they

should be suitable for service with fluctuations in supply voltage up to plus (+) 5% to minus(-)15% in steps of 1.25%

The transformers shall conform to the following specific parameters:

Item: - Indoor type Distribution Transformer-1250kVA, 11 kV/433V-250V

1) System voltage (max.):- **12 kV**
2) Rated voltage HV: - **11 kV**
3) Rated voltage LV: - **433/250 V**
4) Frequency: - **50 Hz**
5) No. of Phases: - **Three**
6) Connection HV: - **Delta**
7) Connection LV: - **Star (Neutral brought out)**
8) Vector group: - **Dyn-11**
9) Type of cooling: - **ONAN**
10) Audible sound levels (decibels) at rated voltage and frequency for transformers shall be as below: - **58decibels** (NEMA Standards)
11) Cable box on HV side
12) Bus duct on LV side

TECHNICAL REQUIREMENTS:

CORE MATERIAL - CRGO Material

The core shall be stack type of high grade cold rolled grain oriented annealed steel lamination having low loss and good grain properties, coated with hot oil proof insulation, and firmly held to prevent vibration or noise. The core shall be stress relieved by annealing under inert atmosphere if required. The complete design of core must ensure permanency of the core loss with continuous working of the transformers.

The maximum flux density in any part of the core and yoke at rated voltage and frequency shall not exceed 1.7 Tesla. The flux density allowed in the design and grade of lamination used shall be clearly stated in the offer. The core structure shall be securely grounded to prevent electrostatic potential.

Preferably no bolt shall be used in the cores. The temperature of the core shall not exceed that permitted in IS.

The bidder should offer the core for inspection and approval by M/s.HLL Life care ltd during manufacturing stage if required. HLL officials will visit your factory during core building and tank assembly stages.

The transformers core shall be suitable for **over fluxing** (due to combined effect of voltage and frequency) up to **12.5%** without injurious heating at full load conditions and shall not get saturated.
No-load current shall not exceed **3% of full load current** and will be measured by energizing the transformer at 433 volts, 50 Hz on the secondary. **Increase of voltage** of 433 volts by **12.5% shall not increase** the **no-load current by 6%** (maximum) **of full load current**.

The bidder shall furnish necessary design data in support of all these situations.

WINDINGS/ASSEMBLY

1) HV and LV windings shall be wound from Triple/Double Paper covered copper conductor.
2) LV winding shall be such that neutral formation will be at top.
3) Inter layer insulation shall be Epoxy dotted Kraft Paper.

4) Proper bonding of inter layer insulation with the conductor shall be ensured. Test for bonding strength shall be conducted.
5) Dimensions of winding coils are very critical. Dimensional tolerances for winding coils shall be within limits as specified in Guaranteed Technical Particulars (GTP Schedule I).
6) Current density for HV and LV winding (Copper) should not be more than 2.8 Ampere per sq mm.
7) The core/coil assembly shall be securely held in position to avoid any movement under short circuit conditions.
8) Joints in the winding shall be avoided. However, if jointing is necessary the joints shall be properly brazed and the resistance of the joints shall be less than that of parent conductor

TAPS

Tapping shall be provided on the higher voltage winding for variation of HV voltage within range of (+) 5.0 % to (-)15.0 % in steps of 1.25%. Tap changing shall be carried out by means of **ON LOAD TAP CHANGER (OLTC-** reputed makes like OLG is preferred), with **Manual** & **Remote Tap Change Control (RTCC)** and having an **Automatic Voltage Regulator facility**. Switch position No.1 shall correspond to the maximum plus tapping. Each tap change shall result in variation of 1.25% in voltage. They should be suitable for service with fluctuations in supply voltage up to plus +5% to minus 15% in steps of 1.25%.

1 No. of operation counter shall be provided to indicate number of tap changing operation. **Surge relay protection has to be provided along with OLTC**.

INSULATION MATERIAL

Electrical grade insulation epoxy dotted Kraft Paper and pre-compressed pressboard of standard make or any other superior material subject to approval of the purchaser shall be used. All spacers, axial wedges / runners used in windings shall be made of pre-compressed pressboard-solid, conforming to type B 3.1 of IEC 641-3-2.Insulation shearing, cutting, milling and punching operations shall be carried out in such a way, that there should not be any burr and dimensional variations.

EARTHING TERMINALS

The core lamination assembly is to be connected to core clamping frame which in turn is to be connected to the tank. Two earthing terminals are to be provided on the transformer tank.

OIL

The insulating oil shall comply with the requirements of IS 335 or BS 148. Use of recycled oil is not acceptable. The specific resistance of the oil shall not be less than 2.5 X1012 ohm-cm at 27 degr.C when tested as per IS 6103. Oil shall be filtered and tested for break down voltage (BDV) and moisture content before filling. The oil shall be filled under vacuum. The design and all materials and processes used in the manufacture of the transformer, shall be such as to reduce to a minimum the risk of the development of acidity in the oil.

TANK

The internal clearance of tank shall be such, that it shall facilitate easy lifting of core with coils from the tank. All joints of tank and fittings shall be oil tight and no bulging should occur during service. Inside of tank shall be painted with varnish/hot oil resistant paint. The top cover of the tank shall be slightly sloping to drain rain water. The tank plate and the lifting lugs shall be of such strength that the complete transformer filled with oil may be lifted by means of lifting shackle.

Manufacturer should carry out all welding operations as per the relevant ASME standards and submit a copy of the welding procedure and welder performance qualification certificates to the customer.

PLAIN TANK

The transformer tank shall be of robust construction and shall be built up of electrically tested welded mild steel plates of thickness not less than 6 mm for top & bottom and min. 4 mm for the side. Under operating conditions the pressure generated inside the tank should not exceed 0.4 kg/ sq. cm positive or negative.

The tank shall be reinforced by welded flats on all the outside walls on the edge of the tank.

The tank shall be capable of withstanding a pressure of 0.8 kg/ sq.cm (g) and a vacuum of 0.7 kg/sq.cm (g) without any deformation.

The radiators shall be of pressed steel type to achieve the desired cooling to limit the specified temperature rise. The transformer shall be capable of giving continuous rated output without exceeding the specified temperature rise. **Bidder shall submit the calculation sheet in this regard.**

CONSERVATOR

The conservator shall be provided on transformer with a magnetic oil gauge and prismatic oil level indicator. The dehydrating breathing device shall be fitted to the conservator which shall also be provided with a drain plug and a filling hole [32 mm (1¼")] normal size thread with cover. In addition, the cover of the main tank shall be provided with an air release plug. The dehydrating agent shall be silica gel. The moisture absorption shall be indicated by a change in the colour of the silica gel crystals which should be easily visible from a distance.

The capacity of a conservator tank shall be designed keeping in view the total quantity of oil and its contraction and expansion due to temperature variations. The total volume of conservator shall be such as to contain10% quantity of the oil. Normally 3% quantity the oil shall be contained in the conservator. The cover of main tank shall be provided with an air release plug to enable air trapped within to be released, unless the conservator is so located as to eliminate the possibility of air being trapped within the main tank. The pipe connecting the conservator to the main tank should be projected into the conservator so that its end is approximately 20 mm above the bottom of the conservator so as to create a sump for collection of impurities. The minimum oil level (corresponding to -5 degr. C) should be above the sump level.

BUSHINGS

The tests as per latest IS 2099 and IS 7421 shall be conducted on the transformer bushingsfor 11 kV, 17.5 kV class bushings and for 0.433 kV, 1.1 kV class bushings shall be used. Bushing can be of porcelain/epoxy material/polymer insulator bushings conforming with relevant IEC can also be used.

The minimum clearances in cable box/ Bus Duct shall be as below:

Voltage	CLEARENCE	
	Phase to Phase	Phase to Earth
11kV	255 mm	140 mm
0.433kV	75 mm	40 mm

TERMINAL CONNECTION

Brazing of all inter connections, jumpers from winding to bushing shall have cross section larger than the winding conductor. All the Brazes shall be qualified as per ASME, section – IX.

The bushings shall be of reputed make supplied by those manufacturers who are having manufacturing and testing facilities for insulators.

HV CABLE BOX/ LV BUS DUCT

LV terminations to be made through Bus duct the transformer shall be fitted with suitable flanges / trunking around transformer bushings for receiving the bus duct. The complete details of bus duct flange is furnished by supplier giving dimensional details for the matching flanges, bolt to terminate the bus conductor. (Size as per requirement). Bust duct shall have LT top entry. The bidder shall ensure the arrangement of bus termination boxes is in such a way so as to prevent the ingress of moisture into the box due to rain water directly falling on the box. The bushings of the box shall be fitted with nuts and stem to take the cable cores without bending them. The stem shall be of copper with copper nuts. The cross section of the connecting rods shall be stated and shall be adequate for carrying the rated currents.
On the HV side the terminal rod shall have a diameter of not less than 12 mm. The material of connecting rod shall be copper. HT Cable support clamp should be provided to avoid tension due to cable weight.

TERMINAL MARKINGS

High voltage phase windings shall be permanently marked both in the terminal boards inside the tank and on the outside with capital letter 1U, 1V, 1W and low voltage winding for the same phase marked by corresponding small letter 2u, 2v, 2w. The neutral point terminal shall be indicated by the letter 2n. Neutral terminal is to be brought out.

FITTINGS

The following standard fittings shall be provided:

i. Rating and terminal marking plates, Non-Detachable.

ii. Earthing terminals with lugs - 2 Nos.

iii. Lifting lugs for main tank and top cover

iv. Terminal connectors on the HV/LV bushings (For bare terminations only).

v. Thermometer pocket with cap - 1 No.

vi. Air release plug

vii. HV bushings - 3 Nos.

viii. LV bushings - 4 Nos.

ix. Pulling lugs

x. Stiffener

xi. Radiators - No. and length may be mentioned (as per heat dissipation calculations)/ corrugations.

xii. Prismatic oil level gauge.

xiii. Drain valve

xiv. Top filter valve

xv. Sampling Valve

xvi. Oil filling hole having p. 1- ¼ '' thread with plug and drain plug on the conservator.

xvii. Silica gel breather

xviii. Jacking Pads and draw eyes

xix. 4 No. of bidirectional rollers at bottom for transformers

xx. Explosion vent diaphragm with equalizer pipe and oil sight glass.

xxi. Shut off valves for Buchholz Relay – 2 Nos

Buchholz Relay

The buchholz relay as per IS: 3637 shall be of double float type, provided with, two pairs of contacts, one for alarm and other for trip, facility for testing by injection of air by hand pump and with a cock for draining and venting of air. The relay shall be provided with shutoff valves on the conservator side as well as on the tank side.

FASTENERS

All bolts, studs, screw threads, pipe threads, bolt heads and nuts shall comply with the appropriate Indian Standards for metric threads, or the technical equivalent. Bolts or studs shall not be less than 6 mm in diameter except when used for small wiring terminals.

All nuts and pins shall be adequately locked. Wherever possible bolts shall be fitted in such a manner that, in the event of failure of locking resulting in the nuts working loose and falling off, the bolt will remain in position. All ferrous bolts, nuts and washers placed in outdoor positions shall be treated to prevent corrosion, by hot dip galvanizing, except high tensile steel bolts and spring washers which shall be electro-galvanized/plated. Appropriate precautions shall be taken to prevent electrolytic action between dissimilar metals. Each bolt or stud shall project at least one thread but not more than three threads through the nut, except when otherwise approved for terminal board studs or relay stems. If bolts and nuts are placed so that they are inaccessible by means of ordinary spanners, special spanners shall be provided. The length of the screwed portion of the bolts shall be such that no screw thread may form part of a shear plane between members. Taper washers shall be provided where necessary. Protective washers of suitable material shall be provided front and back of the securing screws.

SURFACE PREPARATION AND PAINTING

GENERAL

All paints, when applied in a normal full coat, shall be free from runs, sags, wrinkles, patchiness, brush marks or other defects. All primers shall be well marked into the surface, particularly in areas where painting is evident and the first priming coat shall be applied as soon as possible after cleaning. The paint shall be applied by airless spray according to manufacturer's recommendations. However, where ever airless spray is not possible, conventional spray be used with prior approval of M/s HLL.

CLEANING AND SURFACE PREPARATION

After all machining, forming and welding has been completed, all steel work surfaces shall be thoroughly cleaned of rust, scale, welding slag or spatter and other contamination prior to any painting. Steel surfaces shall be prepared by shot blast cleaning (IS9954) to grade Sq. 2.5 of ISO 8501-1 or chemical cleaning including phosphating of the appropriate quality (IS 3618).

Chipping, scraping and steel wire brushing using manual or power driven tools cannot remove firmly adherent mill-scale. These methods shall only be used where blast cleaning is impractical. **Manufacturer to clearly explain such areas in his technical offer.**

PROTECTIVE COATING

As soon as all items have been cleaned and within four hours of the subsequent drying, they shall be given suitable anti-corrosion protection.

PAINT MATERIAL

Heat resistant paint (Hot oil proof) for inside surface For external surfaces one coat of thermo setting powder paint or one coat of epoxy primer followed by two coats of synthetic enamel/epoxy/polyurethane base paint. These paints can be either air drying or stoving. Chemical atmosphere or paint as above with one coat of high build Micaceous iron oxide (MIO) as an intermediate coat may be used.

PAINTING PROCEDURE

All prepared steel surfaces should be primed before visible re-rusting occurs or within 4 hours, whichever is sooner. Chemical treated steel surfaces shall be primed as soon as the surface is dry and while the surface is still warm.
Where the quality of film is impaired by excess film thickness (wrinkling, mud cracking or general softness) the supplier shall remove the unsatisfactory paint coating and apply another coating. As a general rule, dry film thickness should not exceed the specified minimum dry film thickens by more than 25%.

DAMAGED PAINTWORK

Any damage occurring to any part of a painting scheme shall be made good to the same standard of corrosion protection and appearance as that was originally applied. Any damaged paint work shall be made good as follows:
The damaged area, together with an area extending 25 mm around its boundary, shall be cleaned down to bare metal. A priming coat shall be immediately applied, followed by a full paint finish equal to that originally applied and extending 50 mm around the perimeter of the original damage. The repainted surface shall present a smooth surface. This shall be obtained by carefully chamfering the paint edges before and after priming.

DRY FILM THICKNESS

To the maximum extent practicable the coats shall be applied as a continuous film of uniform thickness and free of pores. Overspray, skips, runs, sags and drips should be avoided. The different coats may or may not be of the same colour.

Each coat of paint shall be allowed to harden before the next is applied as per manufacturer's recommendation. Particular attention must be paid to full film thickness at the edges.

The requirements for the dry film thickness (DFT) of paint and the materials to be used shall be as given below:

Sl. No.	**Paint type**	**Area to be painted**	**No. Of coats**	**Total dry film thickness (min.) (microns)**
1	**1. Thermo setting powder paint**	**inside** **outside**	**01** **01**	**30** **60**
2	**2. Liquid paint** **a) Epoxy (primer)** **b)P.U. Paint/Epoxy Paint (Finish coat)** **c) Hot oil paint/ Varnish**	 **outside** **outside** **inside**	 **01** **02** **01**	 **30** **25** **35/10**

TESTS FOR PAINTED SURFACE

The painted surface shall be tested for paint thickness. The painted surface shall pass the cross hatch adhesion test and impact test as acceptance tests and Salt spray test and Hardness test as type test as per the relevant ASTM standards.

Note: Supplier shall guarantee the painting performance requirement for a period of not less than 5 years.

INSULATION LEVELS:

Sl. No.	Voltage (kV)	Impulse Voltage (kV Peak)	Power Frequency Voltage (kV)
1.	0.433	-	3
2.	11	95	28

LOSSES

The bidder shall guarantee individually the no-load loss and load loss without any positive tolerance. The bidder shall also guarantee the total losses at 50% and 100% load condition (at rated voltage and frequency and at 75degr.C).

The maximum allowable losses at rated voltage and rated frequency permitted at 75 degr.C for 1250kVA, 11/0.433 kV transformer shall be:

Max Losses at 50% Loading (Watts) :- 3600Watts
Max. Losses at 100% Loading (Watts) :- 12000Watts

TOLERANCES

No positive tolerance shall be allowed on the maximum losses for both 50% and 100% loading values.

PERCENTAGE IMPEDANCE

The value of impedance of transformer shall be as per IS 2026.

TEMPERATURE RISE

The temperature rises over ambient shall not exceed the limits given below:
Top oil temperature rise measured by thermometer: 50◦C
Winding temperature rise measured by resistance method: 55◦C

The transformer shall be capable of giving continuous rated output without exceeding the specified temperature rise. Bidder shall submit the calculation sheet in this regard.

PENALTY FOR NON PERFORMANCE

During testing at supplier's works if it is found that the actual measured losses are more than the values quoted by the bidder, if the impedance values differ from the guaranteed values including tolerance, if the temperature rise exceeds the specified values the purchaser shall reject the transformer.

OVERLOAD CAPACITY

The transformers shall be suitable for loading as per IS 6600.

TESTS

All the equipment offered shall be fully type tested by the bidder or his collaborator as per the relevant standards including the additional type tests. The type test must have been conducted on a transformer of same design **during the last five years** at the time of bidding. The bidder shall furnish four sets of type test reports along with the offer. Offers without type test reports will
be treated as non-responsive.
The procedure for testing shall be in accordance with IS 2026.

ROUTINE TESTS

1 Ratio, polarity, phase sequence and vector group.
2 No Load current and losses at service voltage and normal frequency.
3 Load losses at rated current and normal frequency.
4 Impedance voltage test.
5 Resistance of windings at each tap, cold (at or near the test bed temperature).
6 Insulation resistance.
7 Induced over voltage withstand test.
8 Separate source voltage withstand test.
9 Neutral current measurement-The value of zero sequence current in the neutral of the star winding shall not be more than 2% of the full load current.
10 Oil samples comply with IS 1866.
11 Measurement of no load losses and magnetizing current at rated frequency and 90%, 100% and 110% rated voltage.
12 Pressure and vacuum test for checking the deflection.

Pressure relief device test: The pressure relief device shall be subject to increasing fluid pressure. It shall operate before reaching the test pressure as specified in the above class. The operating pressure shall be recorded. The device shall seal-off after the excess pressure has been released.

ACCEPTANCE TESTS

The following routine/ acceptance test in presence of M/s. HLL's representative at the place of manufacture before dispatch without any extra charges. The testing shall be carried out in accordance with IS:2026.
Checking of weights, dimensions, fitting and accessories, tank sheet thickness, oil quality, material, finish and workmanship as per GTP and contract drawings. Physical verification of core coil assembly and measurement of flux density.

TESTS AT SITE:

The purchaser reserves the right to conduct all tests on transformer after arrival at site and the manufacturer shall guarantee test certificate figures under actual service conditions.

INSPECTION:

In respect of raw material such as core stampings, winding conductors, insulating paper and oil, supplier shall use materials manufactured/supplied by standard manufacturers and furnish the manufacturers' test certificate as well as the proof of purchase from these manufacturers (excise gate pass) for information of the purchaser. The bidder shall furnish following documents along with their offer in respect of the raw materials:
i. Invoice of supplier.
ii. Mill's certificate.

iii. Packing list.
iv. Bill of landing.
v. Bill of entry certificate by custom.

INSPECTION AND TESTING OF TRANSFORMER OIL

To ascertain the quality of the transformer oil, the original manufacturer's tests report should be submitted at the time of inspection. Arrangements should also be made for testing of transformer oil, after taking out the sample from the manufactured transformers and tested in the presence of M/s HLL's representative. To ensure about the quality of transformers, the inspection shall be carried out by M/s. HLL's representative at following two stages:-

Online anytime during receipt of raw material and manufacture/ assembly whenever the purchaser desires.

At finished stage i.e. transformers are fully assembled and are ready for despatch.

After the main raw-material i.e. core and coil material and tank is arranged and transformer is taken for production on shop floor and a few assembly have been completed, the firm shall intimate M/s.HLL in this regard, so that an officer for carrying out such inspection could be deputed, as far as possible within seven days from the date of intimation. Further, as and when the transformers are ready for despatch, an offer intimating about the readiness of transformers, for final inspection for carrying out tests as per relevant IS. The inspection shall normally be arranged by M/s. HLL at the earliest after receipt of offer for pre-delivery inspection. In case of any defect/defective workmanship observed at any stage by M/s. HLL's Inspecting Officer, the same shall be pointed out to the firm in writing for taking remedial measures. Further processing should only be done after clearance from the Inspecting Officer.

All tests and inspection shall be carried out at the place of manufacture unless otherwise specifically agreed upon by the manufacturer and purchaser at the time of purchase. The manufacturer shall offer the Inspector representing the Purchaser all reasonable facilities, without charges, to satisfy him that the material is being supplied in accordance with this specification. This will include Stage Inspection during manufacturing stage as well as Active Part Inspection during Acceptance Tests.
The manufacturer shall provide all services to establish and maintain quality of workman ship in his works and that of his sub-contractors to ensure the mechanical /electrical performance of components, compliance with drawings, identification and acceptability of all materials, parts and equipment as per latest quality standards of ISO 9000.

M/s. HLL has the right to have the test carried out at his own cost by an independent agency wherever there is a dispute regarding the quality supplied

QUALITY ASSURANCE PLAN:

The bidder shall invariably furnish following information along with his bid, failing which his bid shall be liable for rejection. Information shall be separately given for individual type of equipment offered.
Statement giving list of important raw materials, names of sub-suppliers for the raw materials, list of standards according to which the raw materials are tested, list of tests normally carried out on raw materials in the presence of bidder’s representative, copies of test certificates. Information and copies of test certificates as above in respect of bought out accessories.
List of manufacturing facilities available.
Level of automation achieved and list of areas where manual processing exists.

List of areas in manufacturing process, where stage inspections are normally carried out for quality control and details of such tests and inspection.
List of testing equipment available with the bidder for final testing of equipment along with valid calibration reports. These shall be furnished with the bid. Manufacturer shall posses 0.1 accuracy class instruments for measurement of losses. Quality Assurance Plan (QAP) with hold points for M/s HLL's inspection.
The successful bidder shall within 30 days of placement of order, submit following information to the M/s HLL :

1. List of raw materials as well as bought out accessories and the names of sub-suppliers selected from those furnished along with offer.
2. Type test certificates of the raw materials and bought out accessories.
3. The successful bidder shall submit the routine test certificates of bought out accessories and central excise passes for raw material at the time of routine testing.

STANDARDS

The materials shall conform in all respects to the relevant Indian / International Standards with latest amendments thereof, complying customer requirements and specifications.

Some of them are listed below:-

IS -2026 Part I to V / IEC 76:- Specification for Power Transformers
IS-3639 :- Fittings and Accessories for transformer
IS-335:- Specification for Transformer Oil
IS - 5:- Specification for colors for ready mixed paints
IS - 104:- Ready mixed paint, brushing zinc chromate, priming
IS – 2099:- Specification for high voltage porcelain bushing
IS – 649:- Testing for steel sheets and strips and magnetic circuits

IS – 4257:- Dimensions for clamping arrangements for bushings

IS – 3347 (Part1 to 8) :- Dimension of porcelain transformers/ Bushings

IS – 9335 / IEC 554:- Specification for Insulating Kraft Paper

IS – 1576 IEC 641:- Specification for Insulating Press Board

IS – 6600 / IEC 76:- Guide for loading of oil Immersed Transformers

IS – 2362:- Determination of water content in oil for porcelain bushing of transformer

IS – 6103:- Testing of specific resistance of electrical insulating liquids

IS – 6262:- Method of test for power factor and dielectric constant of electrical insulating liquids

IS – 6792:- Determination of electrical strength of insulating oil

IS – 10028 part I toII:- Installation and maintenance of transformers.

IS – 8468 :- On load Tap Changers

IS – 3043 :- Code of practice for earthing.

DOCUMENTATION

1 The bidder shall furnish along with the bid the dimensional drawings of the items offered indicating all the fittings.

2 Dimensional tolerances.

3 Weight of individual components and total weight.

4 An outline drawing front (both primary and secondary sides) and elevation and plan of the tank and terminal gear, wherein the principal dimensions shall be given.

5 Typical general arrangement drawings of the windings with the details of the insulation at each point and core construction of transformer.

6 Typical general arrangement drawing showing both primary and secondary sides and end-elevation and plan of the transformer.

PACKING AND FORWARDING

The packing shall be done as per the manufacturer's standard practice. However, it should be ensured that the packing is such that, the material would not get damaged during transit by Rail Road. The marking on each package shall be as per the relevant IS.

MANADATORY SPARES

Mandatory spares shall be supplied as per requirement.

GUARANTEE

The manufacturers of the transformer shall provide a guarantee of 12 months from the date of commissioning. In case the distribution transformer fails within the guarantee period the purchaser will immediately inform the supplier who shall take back the failed DT within 15 days from the date of the intimation at his own cost and replace/repair the transformer within forty five days of date of intimation with a roll over guarantee. The outage period i.e. period from the date of failure till unit is repaired/ replaced shall not be counted for arriving at the guarantee period. In the event of the supplier's inability to adhere to the aforesaid provisions, suitable penal action will be taken against the supplier which may inter alia include blacklisting of the firm for future business with the purchaser for a certain period.

DEVIATIONS

The bidders are not allowed to deviate from the principal requirements of the Specifications. However, the bidder is required to submit with his bid in the relevant schedule a detailed list of all deviations without any ambiguity. In the absence of a deviation list in the deviation schedules, it is understood that such bid conforms to the bid specifications and no post-bid negotiations shall take place in this regard.

The discrepancies, if any, between the specification and the catalogues and / or literatures submitted as part of the offer by the bidders, shall not be considered and representations in this regard shall not be entertained. If it is observed that there are deviations in the offer in guaranteed technical particulars other than those specified in the deviation schedules then such deviations shall be treated as deviations.

All the schedules shall be prepared by vendor and are to be enclosed with the bid.

PLACE: **NAME & SIGNATURE OF THE APPLICANT**

DATE : (WITH OFFICE SEAL)

HLL LIFECARE LIMITED
(A Government of India Enterprise)
PEROORKADA, THIRUVANANTHAPURAM-695 005, KERALA, INDIA

TENDER NO. : PUR/08/R1/PQ/ TRANSFORMER /2013-14

SUPPLY, INSTALLATION, TESTING AND COMMISSIONING OF THREE PHASE OIL IMMERSED DISTRIBUTION TRANSFORMER 1250kVA, 11kV/433-250V AT PEROORKADA FACTORY, TRIVANDRUM, KERALA, INDIA

PREQUALIFICATION REQUIREMENTS

1. The tenderer should have minimum 10 years experience in the relevant field.

2. The tenderer should have completed at least five works similar in nature in single contracts – in the same name and style as prime contractor) costing not less than Rs.25 Lakhs each during the last 3 years. For the purpose of this clause.

   a) 'Similar work' shall mean complete work including supply, installation, testing, validation and commissioning of INDOOR TYPE THREE PHASE OIL IMMERSED DISTRIBUTION TRANSFORMER 1250kVA,11kV/433-250V.

   b) Cost of work shall mean the cost of work executed excluding cost of materials/equipment supplied by the department or agency. Certificate of satisfactory completion of work obtained from an officer not below the rank of an executive engineer in the case of Government departments or from an officer of equivalent position in the case of other organization shall be produced.

The certificate will clearly indicate the name of work completed, period during which completed (giving date of commencement and date of completion of cost work). The certificate should bear the name, signature and seal of the officer. In the absence of such a certificate the tender may not be considered.

3. Average annual financial turn over of the bidder during the last 3 years, ending 31st March of the previous financial year, should be at least Rs 25 crores (Twenty five Crores)

4. The tenderer should submit Earnest Money Deposit in the manner specified along with the tender document.

5. The tenderer should have adequate number (Min 2Nos.) of qualified engineers, technical persons. They should have a minimum 5 years experience in the relevant field for executing the work.

6. The tenderer should have adequate construction machineries tools and equipments for the execution of the tendered work.

7. Power of Attorney in case an authorized representative has signed the tender.

8. The duly signed acceptance form conforming that All terms & conditions, technical specifications, drawings & volume of job are understood by the bidder Certificate that bid is in total conformity with the specifications and terms and conditions mentioned in the bid document.

9. Deviation if any, giving reasons for the deviation.

10. Even though the bidder meet the above qualifying criteria, they are subject to be disqualified if they have:

- Record of poor performance such as abandoning the works, not properly completing the contract, inordinate delays in completion, litigation history, or financial failures etc…

HLL does not bind itself to accept the lowest or any tender, and reserves to itself the right to accept or reject any or all the tenders, either in whole or in part without assigning any reason for doing so.

Place: **Signature**

Date: **Name and address of the bidder with seal**

HLL LIFECARE LIMITED
(A Government of India Enterprise)
PEROORKADA, THIRUVANANTHAPURAM-695 005, KERALA, INDIA

TENDER NO. : PUR/08/R1/PQ/ TRANSFORMER /2013-14

APPLICATION FOR PREQUALIFICATION

NAME OF WORK: SUPPLY, INSTALLATION, TESTING AND COMMISSIONING OF THREE PHASE OIL IMMERSED DISTRIBUTION TRANSFORMER 1250kVA, 11kV/433-250V AT PEROORKADA FACTORY, TRIVANDRUM, KERALA, INDIA

A. Name of Firm/Company :

1. Postal address :

2. Telephone No :
   FAX :
   E-Mail :

3. Year of establishment of firm/Company :

B. In the case of Firm

1. Whether proprietary of partnership firm :

2. Name of Managing partner :

3. Name of other partners :

TENDER NO. : PUR/08/R1/PQ/ TRANSFORMER /2013-14

APPLICATION FOR PREQUALIFICATION

C. In the case of Company

1. Whether Private Limited or Public Limited Company :

2. Name of Managing Director :

3. Name of other Directors :

D. a) Experience in the field (in years) :

b) No. of major installations of similar distribution transformer work completed successfully in India, specify. Enclose 3 completion certificates from the client certified that the similar distribution transformers are installed and commissioned at their site successfully and is working satisfactorily. The client list shall be enclosed. (Cost of work not less than Rs. 25 Lakhs for each work) executed during the last 3 years.

Note: Refer **SCHEDULE D**

E. Total No. of ongoing installations of distribution transformer work.

Note: Details to be furnished in **SCHEDULE E**

i) If so, give the period and details.

F. Annual turn over of the bidder during the last 3 years :

(Refer Schedule B)

TENDER NO. : PUR/08/R1/PQ/ TRANSFORMER /2013-14

APPLICATION FOR PREQUALIFICATION

G. Tax registration details (domestic vendors)

(a) CST No./ VAT No.
(b) TIN No.

H. Technical Specification: in **SCHEDULE F** (filled and enclosed)

I. Acceptance Form in **SCHEDULE G**

J. CERTIFICATE as per **SCHEDULE H**

I/We hereby certify that the details given in the application form are correct to the best of my/our knowledge. I /We have no objection in contacting any of our clients for reference.

Place: **Signature**

Date: **Name and address of the bidder with seal**

HLL LIFECARE LIMITED

(A Government of India Enterprise)

PEROORKADA

THIRUVANANTHAPURAM-695 005, KERALA, INDIA

TENDER NO. : PUR/08/R1/PQ/ TRANSFORMER /2013-14

DETAILS OF MAJOR INSTALLATIONS (Min 3Nos.) OF SIMILAR WORK COMPLETED SUCCESSFULLY IN INDIA BY THE TENDERER AS PRIME CONTRACTOR DURING THE LAST 3 YEARS				
Sl. No.	Name of Client with full address, telephone numbers and nature of work	Details of Installation	Value of works completed	Period of Completion with dates (in months)

THE TENDERER SHOULD HAVE COMPLETED 3 NOS. OF SIMILAR WORKS IN THE LAST 3 YEARS.

SIGNATURE OF BIDDER WITH SEAL

TOTAL NUMBER OF ONGOING INSTALLATIONS OR ORDERS IN HAND FOR SIMILAR WORKS			
Sl. No.	Name of Client with full address, telephone	Order details such as quantity, completion time	Value of works

SIGNATURE OF BIDDER WITH SEAL

SCHEDULE F

(TO BE FILLED BY THE BIDDER)

DETAILED TECHNICAL PARTICULARS FOR INDOOR TYPE THREE PHASE OIL IMMERSED DISTRIBUTION TRANSFORMER 1250KVA, 11/0.433 KV TRANSFORMER WITH OLTC

S.N.	Particulars	1250kVA,11/0.43kV Transformer
1	Type & make of transformer	
2	Place of manufacturing the transformer	
3	Continuous maximum rating as per this specification.	
4	Normal ratio of transformer	
5	Method of connection HV/LV	
6	Maximum current density in Windings : 1. HV (A/sq mm) 2. LV (A/sq mm)	
7	Maximum hot spot temperature 0C. (Ambient air temperature on which above is based) 350C.	
8	Maximum temperature : 0C (a) Maximum observable oil temperature (ambient air Temperature on which above is based) b) Maximum winding temperature at an ambient temperature	
9	Continuous maximum rating for the maximum ambient temperature of 50^{o}C.	
10	Polarity	
11	Vector group reference no. and symbol (According to ISS)	

12	Details of tank (approximate values)	
	i) Length	
	ii) Breadth	
	iii) Height	
	iv) Thickness of plate used	
	v) Weight	
13	Details of core (material & Grade)	
	i) Form of core	
	ii) Material and thickness of laminations	
	iii) Material used for insulating and laminations	
	iv) Diameter of core (approx)	
	v) Area of cross section of core (approx)	
	vi) Flux density	
	vii) Total width of core	
	viii) Type of paint between core link and yoke	
	ix) Weight of core	
	x) Over fluxing without saturation (Curve to be furnished by the Manufacturer in support of his claim)	
14	Details of the HV windings	
	i) Type of winding	
	ii) Conductor used	
	iii) Insulation of conductor	
	iv) No. of coils per limb	
	v) Volts per coil	
	vi) No. to turns per coil	
	vii) Volts per turns	
	viii) Interlayer insulation details	
	ix) Volts between layers under 100% excitation	
	x) End turn insulation	
15	Details of the LV windings	
	i) Type of windings	
	ii) Conductor used	

	iii) Insulation of conductor	
	iv) No. of coils per limb	
	v) Volts per coil	
	vi) No. to turns per coil	
	vii) Volts per turns	
	viii) Interlayer insulation details	
	ix) Volts between layers under 100% excitation	
	x) End turn insulation	
16	Insulation details	
	i) End spacing on the HV windings	
	ii) End spacing on the LV windings	
	iii) Between HV and LV windings	
	iv) Between LV winding and core	
17	Clearance	
	i) Minimum clearance distance to earth in air of HV terminals	
	ii) Minimum clearance distance to earth in air of LV terminals	
	iii) Minimum clearance distance between HV terminals in air	
	iv) Minimum clearance distance between LV terminals in air	
	v) Minimum clearance distance between HV & LV terminals in air	
18	Insulation strength	
	i) impulse insulation strength (withstand values) with 1.2/50 microsecond full wave	
	a) HV winding – HV crest	
	b) LV winding – LV crest	
	ii) Impulse chopped wave (withstand values)	
	a) HV winding – HV crest	
	b) LV winding – LV crest	
	iii) Power frequency high voltage test	

	a) HV and ground	
	b) LV and ground	
	iv) induced voltage test (1 min)	
19	HV Bushings	
	i) Name of manufacturer	
	ii) Type of bushing	
	iii) Voltage rating	
	iv) Creepage distance of bushings	
20	Resistance per phase	
	i) HV winding	
	ii) LV winding	
21	Tap changing arrangement	
	i) Type and arrangement of tap changer	
	ii) Location of the taps	
	iii) Details of the tap and ratio on different taps	
22	i) Increase in temperature of winding at full load (resistance) with the type of cooling employed at maximum. Ambient temperature of 50^0C.	
	ii) Oil temperature rise (by thermometer) on above conditions	
23	Thermal time constant.	
24	Permissible duration (in minutes) of loads following continuous running at normal rates load at a maximum ambient temperature of 50^0C 10% over load Minutes 20% over load - do- 20% over load - do-	
25	Guaranteed iron loss without any plus tolerance – watts	

26	Guaranteed copper losses at full load and unity power factor without any plus tolerance at 75^0C	
27	Magnetising current at 90%, 100%, 110% and 120% excitations	
28	Percentage resistance at 75^0C	
29	Reactance voltage drop expressed at percentage of rated voltage.	
30	Impedance voltage at 75^0C expressed as percentage of rated voltage	
31	Regulation at normal full load and unity power factor tap	
32	Regulation at normal/full load and 0.8 power factor	
33	Efficiency at unity power factor & following loads 1.25 Load Full load ¾ Load ½ Load ¼ Load	
34	Efficiency at 0.8 power factor and following loads 1.25 Load Full load ¾ Load ½ Load ¼ Load	
35	Quantity of oil in the transformer tank	
	Grade of oil used, Make and BDV at time of filling	
36	i) Total weight of transformer with oil	
	ii) Total weight of transformer without oil	
	iii) Over all dimensions of the complete temperature	
37	Name and weight of the heaviest package	

38	Standard Spcen. According to which the transformer shall be manufactured and tested	

SOURCE OF MATERIALS / PLACES OF MANUFACTURE, TESTING AND INSPECTION

Sl.No.	Item	Source of Material/Make	Place of Manufacturer	Place&date of Testing and Inspection
1	Laminations			
2	Aluminium/Copper			
3	Insulated winding wires			
4	Oil			
5	Press boards			
6	Kraft paper			
7	MSplates/Angles/Channels			
8	Gaskets			
9	Bushing HV/LV			
10	Paints			
11	OLTC			
12	AVR			

ADDITIONAL DETAILS

Sl.No.	Description	Details
1	Core grade	
2	Core dimensions	
3	Gross core area	cm2
4	Net Core area	cm2
5	Flux density	Tesla

6	Mass of Core	kg
7	Loss per kg of core at the specified flux density	watt
8	Core window height	mm
9	Center to center distance of the core	mm
10	No. of LV Turns	
11	No. of HV turns	
12	Size of LV Conductor bare/ covered (dia)	mm
13	Size of HV conductor bare/covered (dia)	mm
14	No. of parallels	
15	Current density of LV winding	A/sq mm
16	Current density of HV winding	A/sq mm
17	Mass of the LV winding for Transformer kg	
18	Mass of the HV winding for Transformer kg	
19	No. of of LV Coils/phase	
20	No. of of HV Coils/phase	
21	Height of LV Windings	mm
22	Height of HV Windings	mm
23	ID/OD of LV winding	mm
24	ID/OD of HV winding	mm
25	Size of the duct in LV winding	mm
26	Size of the duct in HV winding	Mm
27	Size of the duct between HV and LV	mm
28	HV winding to LV clearance	Mm
29	HV winding to tank clearance	mm
30	Calculated impedance	%
31	HV to earth creepage distance	mm

32	LV to earth creepage distance	mm

A detailed drawing of transformer having all dimensional details shall be furnished by the manufacturer along with GTP.

SIGNATURE OF BIDDER WITH SEAL

ACCEPTANCE FORM

(To be submitted in the letter pad of the firm indicating full name and address, telephone & fax numbers etc.)

From

To

JOINT GENERAL MANAGER (PURCHASE)
HLL LIFECARE LTD
PEROORKADA,
THIRUVANANTHAPURAM – 695 005
KERALA, INDIA

Dear Sir,

I / We, hereby offer to supply/test/commission the equipment as detailed in schedule hereto or such portion thereof as you may specify in the acceptance of Bid at the price given in the price bid and agree to hold this offer open for one year from the date of bid opening prescribed by the Purchaser. I/We have understood the terms and conditions mentioned in the invitation for bid and Conditions of Contract furnished by you and have thoroughly examined the specifications quoted in the bid document hereto and are fully aware of the nature of the scope of work required and my/our offer is to comply strictly in accordance with the requirement and the terms and conditions mentioned above.

Yours faithfully,

SIGNATURE OF BIDDER WITH SEAL

HLL LIFECARE LIMITED
(A Government of India Enterprise)
PEROORKADA, THIRUVANANTHAPURAM-695 005, KERALA, INDIA

TENDER NO. : PUR/08/R1/PQ/ TRANSFORMER /2013-14

TERMS & CONDITIONS

1. The Tender should be completed in all respects. Incomplete tenders are liable to be rejected.

2. Unsealed Tenders received are liable to be rejected and this will be at the sole risk of the Tenderer.

3. The tender is liable to be suspended or cancelled at anytime at the discretion of the company without assigning any reason.

In the event of placing orders: -

a. In tenderer shall return one copy of order signed and sealed as a token of acceptance.

b. In case of rejection, the equipment should be taken back and replaced at yours risk and cost within 14 days of intimation from HLL.

c. A certificate confirming that the equipment offered is environment friendly i.e., non-hazardous to the environment is to be enclosed with the Technical bid.

TENDER NO. : PUR/08/R1/PQ/ TRANSFORMER /2013-14

TERMS & CONDITIONS

d. The supplier agrees to supply strictly as per the specification mentioned in the order. HLL reserves the right not to receive the goods beyond the delivery date given in the order.

e. **Liquidated damages for delayed supply:-** The parties have to abide by delivery schedule given in the supply order strictly. Penalty for delay @ 0.5% value of the materials per week of delay subject to a maximum of 7.5% of the value of the supply order will be imposed, if accepted by the Company after the stipulated delivery period.

g. **Payment Terms :-**

a) 70% of the value of supply shall be paid against supply and acceptance of equipment & accessories.

b) 20% will be released after successful installation & commissioning

c) 10% against submission of Performance Bank Guarantee for 10% of contract value. The PBG should be in the form of BG /Demand Draft/ TT in favour of HLL Lifecare Ltd, Trivandrum, India valid for one year from the date of installation and commissioning.

TENDER NO. : PUR/08/R1/PQ/ TRANSFORMER /2013-14

TERMS & CONDITIONS

d) Payment for incidental charges: The charges for incidental services including supervision, if provided separately in the contract, shall be paid after the said services have been performed to the satisfaction of the purchaser in accordance with the requirements of the contract

WARRANTY

The supplier shall warrant that the goods supplied /WORK COMPLETED under the contract shall have no defect arising from design, materials or workmanship. Period of warranty shall be twelve months from the date of installation and commissioning as certified jointly by the supplier and the Purchaser.

INSURANCE

The goods supplied under the contract, shall be fully insured by the supplier in a freely convertible currency against loss or damage incidental to manufacture or acquisition, transportation, storage and delivery.

DELIVERY/COMPLETION PERIOD

Time being the essence of the Contract, the delivery and completion period stipulated should be strictly adhered to. The Supplier should deliver the equipments as per the Contract within 3months from the date of award of contract.

TENDER NO. : PUR/08/R1/PQ/ TRANSFORMER /2013-14

TERMS & CONDITIONS

Delivery of the goods shall be made by the supplier in accordance with the terms specified by the purchaser in the notification of award.

INSPECTION AND TESTS

The purchaser or its representatives shall have the right to inspect the machinery and accessories and/ or to test the machinery to confirm if they match the specifications as per the order. The purchaser shall notify the supplier in writing of the identity of the representatives for the purposes.

The inspections and tests may be conducted on the premises of the supplier or at point of delivery and/or at site. Where conducted on the premises of the supplier, the Supplier should make available all reasonable facilities including tools, instruments, apparatus, equipment, facilities, and also access to drawings and production data, to enable the Purchaser's nominee to carryout such inspection/tests without obligations to the purchaser.

Goods under the Contact shall not be despatched unless they have been finally inspected by the purchaser or inspection waived and despatch specifically authorized in writing.

For imported goods, Purchaser reserves the right for pre-shipment inspection of the equipment by the Purchaser and/or by a third party.

Should any inspected or tested goods fail to conform to the specifications and performance, the purchaser may reject then and the supplier shall either replace the rejected goods or make all alternations necessary to meet specification requirements free of cost to the purchaser, within a period of 15 (fifteen) days of intimating such rejection.

TENDER NO. : PUR/08/R1/PQ/ TRANSFORMER /2013-14

TERMS & CONDITIONS

The purchaser's right to inspect, test and, where necessary, reject the goods after the good's arrival at site shall in no way be limited or waived by reason of the goods having previously been inspected, tested and passed by purchaser or its representatives prior to the good's dispatch from the place of manufacture.

Notwithstanding any such inspection/tests carried out at Supplier's works, the equipment shall be accepted only after receipt and successful commissioning at the site and the inspection/tests carried out at Supplier's works will not relieve his contractual obligations for conforming to the specifications under the contract.

PACKING

The supplier shall provide such packing of the goods as is required to prevent damage or deterioration during transit to site. The packing shall be sufficient to withstand, without limitation, rough handling during transit and open storage.

TRANSPORTATION

Bidders are required to supply equipments at our factory premises Peroorkada Trivandrum. The freight and Insurance charges are to be indicated in the rate schedule.

TENDER NO. : PUR/08/R1/PQ/ TRANSFORMER /2013-14

TERMS & CONDITIONS

INCIDENTAL SERVICES.

As specified in the price schedule, the supplier may be required to provide any or all of the following services:

a. Performance or supervision of on-site assembly, start-up and successful commissioning,

b. Supply of tools required for assembly and/or maintenance ,

c. Training of the purchaser's personnel.

d. Performance or supervision of maintenance and/or repair of the machines, for the period of warranty specified in the contract.

SPARES

The supplier shall offer unit prices valid for two years after the warranty period separately for such essential spare parts and accessories which are recommended as necessary for 2 years and maintenance after warranty period. HLL reserves the right, however, to order any of these spares or increase or decrease the quantity as it may finally decide at the rate given in the tender.

The jurisdiction of any dispute, suits and proceedings arising out of this tender shall be only in the court of Thiruvananthapuram, Kerala, India.

TENDER NO. : PUR/08/R1/PQ/ TRANSFORMER /2013-14

TERMS & CONDITIONS

INDEMNITY CLAUSE:

If the supplier fails to execute the order within the time prescribed for the delivery of goods ordered or violates or infringes the existing rates as agreed to as mentioned in the supply order, the supplier shall and will indemnify the company against all loses or damages whatsoever to be incurred or sustained including the legal cost or expenses incurred by the company by reason of non-delivery of goods at agreed quantity and rate with in the time specified in the supply order. The company will initiate legal action if the supplier fails to execute the supply order as per the schedule in the supply order for the actual loss suffered. Responsiveness of the Bid shall be at the discretion of HLL.

Bid pronounced Non Responsive by HLL shall be summarily rejected. The decision of HLL will be final and no correspondence of this shall be entertained.

We have read and understood the above conditions and agree to abide by the same.

PLACE: NAME AND SIGNATURE OF THE APPLICANT

DATE: (WITH OFFICE SEAL)

HLL LIFECARE LIMITED
(A Government of India Enterprise)
PEROORKADA
THIRUVANANTHAPURAM-695 005, KERALA, INDIA

TENDER NO. : PUR/08/R1/PQ/ TRANSFORMER /2013-14

CERTIFICATE

I / we hereby certify that the information given with this bidding document is correct. If, at any stage, it is found to be incorrect, I / we understand that the contract will be liable to be terminated and action could be taken against me/us by the Company for damages.

SIGNATURE(S) OF BIDDER WITH SEAL

(To be submitted in the letter pad of the firm indicating full name and address, telephone & fax numbers etc.)

HLL LIFECARE LIMITED

(A Government of India Enterprise)

PEROORKADA

THIRUVANANTHAPURAM-695 005, KERALA, INDIA

PRICE BID

SUPPLY, INSTALLATION, TESTING AND COMMISSIONING OF THREE PHASE OIL IMMERSED DISTRIBUTION TRANSFORMER 1250kVA, 11kV/433-250V AT PEROORKADA FACTORY, TRIVANDRUM, KERALA, INDIA

TENDER NO. : PUR/08/R1/PQ/ TRANSFORMER /2013-14

CONTENTS OF PRICE BID FORMS

1. SCHEDULE J - RATE SCHEDULE

HLL LIFECARE LIMITED

(A Government of India Enterprise)

PEROORKADA

THIRUVANANTHAPURAM-695 005, KERALA, INDIA

TENDER NO. : PUR/08/R1/PQ/ TRANSFORMER /2013-14

PRICE BID

RATE SCHEDULE FOR SUPPLY, INSTALLATION, TESTING AND COMMISSIONING OF THREE PHASE OIL IMMERSED DISTRIBUTION TRANSFORMER 1250kVA, 11kV/433-250V AT PEROORKADA FACTORY, TRIVANDRUM, KERALA, INDIA

PRICE PARTICULARS	PER UNIT (IN RS.)	REMARKS
BASIC PRICE		
EXCISE DUTY (% TO BE FURNISHED)		
CESS ON EXCISE DUTY		
CST/VAT (% TO BE FURNISHED)		
FREIGHT		
INSURANCE		
INSTALLATION & COMMISSIONING CHARGES		
OTHERS, IF ANY (PLEASE SPECIFY)		
TOTAL		
(Rupees……)		

NB: In case of discrepancy between unit price and total price, the unit price shall prevail

Payment Terms :

MINIMUM TIME REQUIRED TO START THE SUPPLY AFTER RECEIPT OF LETTER OF INDENT/SUPPLY ORDERS }

TIME REQUIRED FOR INSTALLING, TESTING & COMMISSIONING

VALIDITY: ONE YEAR

PLACE: NAME AND SIGNATURE OF THE TENDERER

DATE : (WITH OFFICE SEAL)