

ANDREW YULE & COMPANY LIMITED
(A Government of India Enterprise)
Chennai-Operation, Electrical Division
5/346 OLD MAHABALIPURAM ROAD
PERUNGUDI, CHENNAI: 600 096

TENDER DOCUMENTS FOR UNLOADING, ERECTION, TESTING & COMMISSIONING OF POWER TRANSFORMERS

ANDREW YULE & CO. LTD. invites e-Tender under single stage two part system (**Part I: Techno-Commercial Bid and Part II: Price Bid**) for finalizing rate contract for unloading, erection, testing & commissioning of power transformers, "**Scope of Work / Technical Specification**" as specified in this tender document.

Tender document may be downloaded from MSTC website www.mstcecommerce.com/eprochome/aycl. Corrigenda or clarifications, if any, shall be hosted on the above mentioned websites only.

We request you to submit your offer for the following works as per enclosed specification Annexure V

<u>Sl. No</u>	<u>Description</u>	<u>Qty</u>
1	Unloading of 31.5 MVA, 66KV class power transformer At Anywhere in Karnataka (FO: 3634) Detailed scope of work enclosed in Annexure V	3 Nos
2	Unloading of 10 MVA, 110/33-11 KV class power transformer At Anywhere in Karnataka (FO: 3627) Detailed scope of work enclosed in Annexure V	17 Nos
3	Unloading & erection of 16 MVA, 110 KV class Power transformer at Anywhere in Tamilnadu (FO: 3632 & 3633) Detailed scope of work enclosed in Annexure V	12 Nos
4	Unloading, erection, testing & commissioning 16 MVA, 15.75/6.9 KV , 2 Winding, 3 Phase, 50 HZ Dyn11, ONAN cooled spare unit auxiliary transformer with oil with off circuit Tap changer with accessories & spares along with Neutral Grounding Transformer & Neutral Grounding Resistor (NGR) at Raichur Thermal station- Karnataka.	2 Nos

Detailed scope of work enclosed in Annexure V

For SI No 1-3: The work will be starting from April'2018 onwards.

For SI No 4: February 2018-1 No & March 2018 – 1 No.

Any clarification or additional information if required, the tenderer should call on us to get those things clarified.

Andrew Yule reserves the right to increase the tender quantity by 30 %.

AYCL reserves the right to accept or reject any tender.

VALIDITY: Your offer should be valid for acceptance for a minimum period of 60 days from the date of tender opening.

The buyer reserves the right to accept or reject any or all the tenders or to waive any informality, minor deviation or omission without assigning any reasons whatsoever.

Schedule of Tender

1.	TENDER NO.	<u>T-020/2017-18</u>
2.	MODE OF TENDER	e-Procurement System Online submission of Part I - Techno-Commercial Bid and Part II - Price Bid through www.mstcecommerce.com/eprochome/aycl The intending bidders are required to submit their offer electronically through this e-tendering portal. No physical tender is acceptable by AYCL/MSTC
3.	E-Tender No. / Event No.	AYCL/Electrical Division CO/54/17-18/ET/197
4.	Date of publication of e-Tender through publication MSTC/AYCL websites and Central Public Procurement Portal	21.11.2017
5.	Date of availability of NIT to the Vendors for downloading	21.11.2017
6.	Earnest Money Deposit	<ul style="list-style-type: none"> • Earnest Money Deposit” of Rs.20,000/- (Rupees Twenty Thousand only) should be paid by thro’ NEFT/RTGS • Other document as described in Annexure II& III
7.	Date of Starting of e-Tender for submission of Online Techno-Commercial Bid and Price Bid at www.mstcecommerce.com/eprochome/aycl	21.11.2017 -04.00 PM
8.	Date of closing of Online e-tender for submission of Techno-Commercial Bid & Price Bid at www.mstcecommerce.com/eprochome/aycl	05.12.2017 -03.00 PM
9.	Last date of submission/ uploading details of EMD & other documents at www.mstcecommerce.com/eprochome/aycl	05.12.2017-03.00 PM
10.	Date & time of opening of Part-I (Techno-Commercial Bid)	05.12.2017-03.15PM
11.	Date & time of opening of Part-II (Price Bid)	To be intimated to the eligible vendor separately by email.

List of Annexure

Important Instructions for E-procurement

Annexure-I

Terms& Conditions

Annexure-II

General Terms& Conditions

Annexure-III

Online Techno commercial terms

Annexure-IV

Detailed Scope of works

Annexure-V

Price Sheet

Annexure-VI

Important Instructions for E-procurement

This is an e-procurement event of ANDREW YULE & COMPANY LTD Ltd.

You are requested to read the Terms & Conditions (Annexure- II,III,IV) of this tender before submitting your online tender. Tenderers who do not comply with the Conditions with documentary proof (wherever required) will not qualify in the Tender for opening of Price Bid.

1. Process of E-tender:

A) **Registration:** The process involves vendor's registration with MSTC e-procurement portal which is free of cost. Only after registration, the vendor(s) can submit his/their bids electronically. Electronic Bidding for submission of Techno-Commercial Bid as well as Price Bid over the internet will be done. The Vendor should possess Class III signing type Digital Signature Certificate. Vendors are to make their own arrangement for bidding from a PC connected with Internet. MSTC is not responsible for making such arrangement. (Bids will not be recorded without Digital Signature).

SPECIAL NOTE: THE PRICE BID AND THE COMMERCIAL BID HAS TO BE SUBMITTED ONLINE AT www.mstcecommerce.com/eprochome/aycl

- 1) Vendors are required to register themselves online with www.mstcecommerce.com → e-Procurement → PSU / Govt. depts. → Register as Vendor under AYCL- Filling up details and creating own user id and password → Submit.
- 2) Vendors will receive a system generated mail confirming their registration in their email which has been provided during filling the registration form.

In case of any clarification, please contact MSTC/AYCL (before the scheduled time of the e-Tender).

Contact person (ANDREW YULE & COMPANY LTD):

- | | |
|--|---|
| 1. Mr. A T E Pandian
Manager (Materials)
Ph. No: (044) 2496-0793
Email: atepandian@andrewyule.com | 2. Mr Kingsley Rueben
Technical Assistant (EDP)
Mobile No: 91 9884446378
Email: reuben@andrewyule.com |
| 3. Mr. R.Tamilselvan
Asst.Manager (Materials)
Mobile. No: 91 9788520864
Email: tamilselvan@andrewyule.com | |

Contact person (E-Commerce, MSTC Ltd):

1. Mr. ArindamBhattacharjee

Deputy Manager (E-commerce)

MobileNo: 09330102643

Email: arindam@mstcindia.co.in

2) Mr. Sabyasachi Mukherjee

Assistant Manager (E-commerce)

Mobile- 07278030407

Email: smukherjee@mstcindia.co.in

Landline: (033) 22901004

MsSumonaMaity

Management Trainee (E-Commerce)

Mobile-09831155225

Email: smaity@mstcindia.co.in

System Requirement:

- i) Windows XP-SP3 or above / Windows 7 Operating System
- ii) IE-7 or above Internet browser.
- iii) Signing & Encryption type digital signature
- iv) JRE 7 update 79 software to be downloaded and installed in the system. Security level should be medium
- v) To enable ALL active X controls and disable 'use pop up blocker' under Tools → Internet Options → custom level (Please run IE settings from the page www.mstcecommerce.com once)

2. Part-I: Uploading of EMD & other Documents:

Within specified Date & time the vendor must submit the documents as per the Annexure. (Annexure II & II (A))

Bidding in e-Tender:

- a. No interest will be paid on EMD. EMD of the unsuccessful bidder(s) will be refunded by ANDREW YULE & COMPANY LTD. EMD to be paid along with the Document within the last date as mentioned in SOT.
- b. The process involves Electronic Bidding for submission of Techno Commercial Bid as well as Price Bid.
- c. The bidder(s) submit their Techno Commercial Bids , upload payment details of tender fee, EMD & other documents and Price Bid through online in MSTC website www.mstcecommerce.com → e-procurement → Psu / Govt depts. → Login under AYCL → My Menu → Auction Floor Manager → live event → Selection of the live event.
- d. The bidder should allow to run an application namely enApple by accepting the risk and clicking on run. This exercise has to be done twice immediately after opening of Bid floor. Then they have to fill up Common terms /Commercial specification and save the same. After that clicking on the Techno-Commercial bid, if this application is not run then the bidder will not be able to save / submit his Techno-Commercial bid.

- e. After filling the Techno-Commercial Bid, bidder should click 'save' for recording their Techno-Commercial bid. Once the same is done, the Price Bid link becomes active and the same has to be filled up and then bidder should click on "**Save**" to record their Price Bid. Then once both the Techno-Commercial bid & Price Bid has been saved, the bidder can click on the "**Submit**" button to register their bid.
- f. Vendors are instructed to use link in **My Menu** to **Upload Documents** in document library. Multiple documents can be uploaded. Maximum size of single document for upload is 5 MB.
- g. Once documents are uploaded in the library, vendors can attach documents through *Attach Document* link against the particular tender. For further assistance please follow instructions of vendor guide.
- h. In all cases, bidder should use their own ID and Password along with Digital Signature at the time of submission of their bid.
- i. During the entire e-tender process, the bidders will remain completely anonymous to one another and also to everybody else.
- j. The e-tender floor shall remain open from the pre-announced date & time and for as much duration as mentioned above.
- k. Techno-Commercial bid will be opened electronically on specified date and time as given in the NIT. Bidder(s) can download Technical Comparative statement.
- l. Price bid will be opened electronically on specified date and time given in the NIT. Bidder(s) can download Price Comparative statement.
- m. All entries in the tender should be entered in online Technical & Commercial Formats without any ambiguity.
- n. All electronic bids submitted during the e-tender process shall be legally binding on the bidder. Any bid will be considered as the valid bid offered by that bidder and acceptance of the same by the Buyer will form a binding contract between Buyer and the Bidder for execution of supply. Such successful tenderer shall be called hereafter **SUPPLIER**.
- o. It is mandatory that all the bids are submitted with Digital Signature Certificate otherwise the same will not be accepted by the system.
- p. Buyer reserves the right to cancel or reject or accept or withdraw or extend the tender in full or part as the case may be without assigning any reason thereof.
- q. No deviation of the terms and conditions of the tender document is acceptable. Submission of bid in the e-tender floor by any bidder confirms his acceptance of terms & conditions for the tender.
- r. Unit of Measure (UOM) is indicated in the e-tender Floor. Rate to be quoted should be in Indian Rupee as per UOM indicated in the e-tender floor/tender document.

E-tender cannot be accessed after the due date and time mentioned in NIT.

All notices / corrigendum and correspondence to the bidder(s) shall be sent by email only during the process till finalization of tender by ANDREW YULE & COMPANY LTD/MSTC LTD.

Hence the bidders are required to ensure that their corporate email I.D. provided is valid and updated at the stage of registration of vendor with MSTC. Bidders are also requested to ensure validity of their DSC (Digital Signature Certificate).

Any order resulting from this open e-tender shall be governed by the terms and conditions mentioned therein.

No deviation to the technical and commercial terms & conditions are allowed.

ANDREW YULE & COMPANY LTD has the right to cancel this e-Tender without assigning any reason thereof.

The online tender should be submitted strictly as per the terms and conditions and procedures laid down in the website www.mstcecommerce.com/eprochome/aycl of MSTC Ltd.

The bidders must upload all the documents required as per terms of NIT. Any other document uploaded which is not required as per the terms of the NIT shall not be considered.

The bid will be evaluated based on the filled-in technical & commercial formats.

Bidders are requested to read the vendor guide and see the video in the page www.mstcecommerce.com/eprochome/mstc of MSTC Ltd. to familiarize them with the system before bidding.

**ANDREW YULE & COMPANY LIMITED
Chennai Operation, Electrical Division**

**General Information
Ref. Tender No.: T-20/17-18
(This document should be uploaded along with EMD)**

The applicants are required to furnish full information to the queries included in this form. In giving the particulars, the supporting documents/certificates as called for per queries at places, must be tagged with the application for evidencing the information furnished in the application.

1. Name of the firm in full :

2. Address, Telephone No.,

Fax No. & E-mail :

a) Address :

b) Telephone No. :

c) Fax No. :

d) E-mail ID :

3. Status of the organization :

4. Trade License No.

**(Please attach a photo
copy of the license) :**

5. Banker's name

(a) Name of the Bank :

(b) Name of the Branch :

(c) Account No. :

(d) IFSC code :

Note : A copy of Banker's Certificate to be attached.

6. GST Registration No.

7. I. T. Permanent Account No.:

8. Financial Capacity : Year (2015-2016)

(a) Fixed capital :

(b) Working capital :

I/we hereby certify that the particulars furnished by me/us above are true to the best of my / our knowledge and belief and mis-representations of facts will render me/us liable to my/our action as may be deemed fit by Andrew Yule & Co. Ltd. (Chennai Operation) & have the sole discretion to reject or accept my/our candidature.

(Signature of the Applicant)
Office Stamp/Seal.

Place :

Date ;

List of attachments:

The following documents are to be uploaded online at

www.mstcecommerce.com/eprochome/aycl

1. EMD : Rs.20,000/= *

* Bidders may request for exemption from submitting EMD (Refer details given in General terms & conditions).

2. Tender fee Rs: 200 /= should be paid by way of RGTS/ NEFT *

* Bidders participating in the tender should upload the UTR details towards cost of tender document.

3. Bidder should have carried out minimum five similar / equivalent transformer jobs. Necessary certificate of performance and purchase order shall be enclosed. For contractors who have already carried out similar work for Andrew Yule Chennai, no certificate is required.

OFFERS RECEIVED WITHOUT ABOVE WILL BE REJECTED.

GENERAL & TERMS AND CONDITIONS

1) EMD: Rs. 20,000.00 (Rupees Twenty thousand only), should be paid by way of RGTS/ NEFT.

For bidders already enlisted with AYCL- Chennai Operation, having outstanding amount more than the EMD amount or who have already submitted the EMD against our earlier tenders or those who have security deposit with Andrew Yule may apply for adjustment of the same.

Bidders who are MSMED units may apply for exemption from furnishing EMD by making a specific request in writing and enclosing the necessary document in support of the same.

Bidders whose turnover is more than Rs: 50 crores may apply for exemption from furnishing EMD by making a specific request in writing and enclosing the necessary document in support of the same

If reason for non-submission of EMD or adjustment against the outstanding balance for EMD is not mentioned in Techno-commercial bid of tender, the tender will be rejected.

2) To release rate contract on the other bidders who agrees to the L1 landed rate. The tender quantity will be split among the bidders as mentioned in the tender (Distribution of Tender quantity among all qualified bidder)

DISTRIBUTION OF TENDER QUANTITY AMONG THE QUALIFIED BIDDER (Applicable for SI No 1 to SI No 3):

L1 price will be offered to other bidders whose price bid was opened. The tender quantity will be split among the bidder as follows.

- a) If only one bidder (among L2,L3,L4 etc.,) agree to match the L1 bidder price then tender quantity will be split as follow:

L1 bidder will get 70% of tender quantity.

Other bidder who agreed to match the L1 price will get 30% of tender quantity.

- b) If two or more bidders (among L2, L3,L4 etc.,) agrees to match the L1 bidder's price then tender quantity will be split as follows

L1 bidder will get 60% of tender quantity.

Next higher bidder than L1 bidder who agrees to match the L1 price (bidder A) will get 25% of tender quantity.

Next higher bidder than bidder "A" who agrees to match the L1 price will be 15% of tender quantity.

- c) If none of the other bidder whose price bid was opened agree to match L1 price L1 bidder will get the entire tender quantity.

3) THE RIGHTS OF THE COMPANY

Bidders who have quote other payment terms & condition having financial implication will be loaded as per Andrew Yule's norms.

We reserve the right to accept or reject any or all the tenders or to waive any informality, minor deviation or omission without assigning any reasons whatsoever.

Our Bank details for making RTGS payment.

Bank Name and Address	ALLAHABAD BANK CHENNAI ADYAR BRANCH 19,1ST STREET, PADMANABHA NAGAR CHENNAI 600 020
IFSC Code	ALLA0211103
Account No	20276303182
Account Name	ANDREW YULE & COMPANY LIMITED

**TECHNO-COMMERCIAL TERMS FOR UNLOADING, ERECTION, TESTING
& COMMISSIONING OF POWER TRANSFORMERS
(To be filled online in mstc portal).**

SL NO	TERMS & CONDITIONS	VENDOR RESPONSE
1	<p>REQUIREMENT</p> <p><i>E-Tender offers are invited for Entering into Rate Contract for the following works as per enclosed detailed scope of work in Annexure V</i></p> <p>1.Unloading of 31.5 MVA, 66KV class power transformer at anywhere in Karnataka (FO: 3634) -3 Nos</p> <p>2.Unloading of 10 MVA, 110/33-11 KV class power transformer at anywhere in Karnataka (FO: 3627)-17 Nos</p> <p>3.Unloading & erection of 16 MVA, 110 KV class Power transformer at anywhere in Tamilnadu (FO: 3632 &3633)--12 Nos</p> <p>4.Unloading, erection, testing & commissioning 16 MVA,15.75/6.9KV auxiliary transformer with accessories& spares along with Neutral Grounding Transformer & Neutral Grounding Resistor (NGR) at Raichur Thermal station- Karnataka.- 2 Nos</p>	AGREE
2	Validity period of the offer: Your offer should be valid for acceptance for a minimum period of 90 days from the date of tender opening.	AGREE
3	Liquidated damage – If the delivery is delayed beyond the date of scheduled date of dispatch in the purchase order, penalty will be levied @ 1/2% per week subject to a maximum of 5%	AGREE
4	Risk purchase clause: The company reserve the right to impose risk purchase clause as " For delay in execution / supply we shall have every right to do the same through some other agency/s which shall deemed fit and the additional cost of the same (Incidental/Consequential) shall be to your account which with respect to our intimation or observation whatsoever	AGREE
5	ARBITRATION: If any dispute arises between the company and the contractor, as to the terms and conditions of the agreement or method of compliance thereof, the procedure as laid down in Indian Arbitration & Consolidation Act 1996 will be adhered.	AGREE
6	<p>Legal condition: Any contract entered against this tender will be as per the following legal condition</p> <p>It is recorded that this purchase order / contract / agreement is executed and concluded by and between the parties hereto at premises No.5/346, Old Mahabalipuram Road, Perungudi, Chennai 600 096 and in the event any dispute arises out of this agreement between the parties only the appropriate Civil Court in the City of Kolkata shall have the exclusive jurisdiction to entertain, try and determine the said proceedings in exclusion of all other courts.</p>	AGREE

7	Security Deposit - The EMD amount of the successful Bidder will be retained as security deposit towards the execution of the order and the same will be released after completion of order.	AGREE
8	The rate is firm and no change in price is accepted.	AGREE
9	Tax Deduction at Source will be applicable on the payment.	AGREE
10	Acceptance of general condition & scope of work of tender as per Annexure V	AGREE
11	GST registration certificate (Copy of proof to be upload)	Remarks Field
12	HSN code & applicable GST rate for the Product.	Remarks Field
13	EMD : Rs. 20,000/= * UP LOADED * Bidders may request for exemption from submitting EMD (Refer details given in General terms & conditions)	Remarks field
14	Tender fee Rs: 200 /= should be paid by way of RGTS/ NEFT Bidders participating in the tender should upload the UTR details towards cost of tender document.* UP LOADED	Remarks field
15	Qualifying Requirement: Minimum five similar / equivalent transformer job works should be carried out . Necessary certificate of performance and purchase order shall be enclosed. For contractors who have already carried out similar work for Andrew Yule Chennai, no need to enclose the certificate. *Proof should be uploaded.	Remarks field
16	PAYMENT TERMS: -Direct Credit	Agree
17	Please indicate the number of days of direct credit i) For Unloading: 100 % bill value after 90 days from the date of remark free unloading of the transformer.	Remarks Field
18	Please indicate the number of days of direct credit ii) For Erection: a)90% payment of the erection amount (excluding unloading charges) in 90 days from the date of commissioning or 60% of the payment in 120 days of completion of work/ erection of the transformer whichever is earlier. Balance 30% of the erection will be released after one month of successful commission of the transformer. Please note that the erection bill should accompany a commissioning report along with your bill. In the case of completion of erection, a certificate from the end customer or from Our Engineers should be produced along with the bill.	Remarks Field
19	b)Balance 10% of the total amount after 12 months from the date of successful commissioning of the transformer subject to the condition that no remarks on erection/ leakage/ earthing etc., of the particular transformer. If any such remarks have been received, the same has to be rectified FREE OF COST. Alternately, this 10% payment may also be released against an equivalent BG.	AGREE

20	<p>Please indicate the number of days of direct credit</p> <p>ii) For Erection, Testing & Commissioning:</p> <p>a) 90% payment of the erection amount (excluding unloading charges) in 90 days from the date of commissioning or 60% of the payment in 120 days of completion of work/ erection of the transformer whichever is earlier. Balance 30% of the erection will be released after one month of successful commission of the transformer. Please note that the erection bill should accompany a commissioning report along with your bill. In the case of completion of erection, a certificate from the end customer or from Our Engineers should be produced along with the bill.</p>	Remarks Field
21	<p>b)Balance 10% of the total amount after 12 months from the date of successful commissioning of the transformer subject to the condition that no remarks on erection/ leakage/ earthing etc., of the particular transformer. If any such remarks have been received, the same has to be rectified FREE OF COST. Alternately, this 10% payment may also be released against an equivalent BG.</p>	AGREE

For item no1 &2:**A) UNLOADING:**

Charges for unloading of main transformer and accessories and placing it in the plinth and fixing the wheels/ near the plinth/ inside the store, etc. as per our/ Client Instruction. Separate per meter charges for leading the main transformer for more than 15 m (minimum 15 m leading is to be included in the main scope), to be mentioned.

1. Unloading of 31.5 MVA, 66KV class power transformer at anywhere in Karnataka (FO: 3634) transformer details are given below,

31.5 MVA ,66 KV class Transformer Details (FO: 3634)

1) Length of Transformer	: 5.4 meters (Approx.)
2) Width of Transformer	: 2.6 meters (Approx.)
3) Height of Transformer	: 2.8 meters (Approx.)
4) Accessories Weight	: 7.09 MT (Approx.)
5) Transport Weight	: 51.77 MT (Approx)

2. Unloading of 10 MVA, 110/33-11 KV class power transformer at anywhere in Karnataka (FO: 3627) transformer details are given below,

10 MVA , 110/33-11 KV class Transformer Details (FO: 3627)

1) Length of Transformer	: 5.3 meters (Approx.)
2) Width of Transformer	: 2.8 meters (Approx.)
3) Height of Transformer	: 3.3 meters (Approx.)
4) Accessories Weight	: 5.7 MT (Approx.)
5) Transport Weight	: 39 MT (Approx)

For item no: 3 (Unloading & erection of 16 MVA, 110 KV class power transformers at Anywhere in Tamilnadu (FO: 3632 &3633) Transformer details are given below,**16 MVA, 110 KV class Transformer Details (FO: 3632 & 3633)**

1) Length of Transformer	: 5.35 meters (Approx.)
2) Width of Transformer	: 3.0 meters (Approx.)
3) Height of Transformer	: 3.25 meters (Approx.)
4) Accessories Weight	: 6.0 MT (Approx.)
5) Main Job Weight	: 33 MT (Approx)
6) Total oil quantity	: 12650 liters

A) UNLOADING:

- i) Charges for unloading of main transformer and accessories and placing it in the plinth and fixing the wheels/ near the plinth/ inside the store, etc. as per our/ Client Instruction. Separate per meter charges for leading the main transformer for more than 15 m (minimum 15 m leading is to be included in the main scope), to be mentioned.

B) ERECTION:

Erection, CT Testing, Co-ordination with TNEB, oil filtering, wiring, testing coordination and Commissioning of the transformer.

Note: The Oil filtration should be done with a High Vacuum filter plant of capacity 4500litres/ hour or more.

Note:

i) If the commissioning of the transformer is unduly delayed due to incomplete erection, we (Andrew Yule & CO. Ltd.) reserve the right to carry out the work from other sources at the risk & cost of the original contractor.

ii) Separate bill processing and getting "LOI" and forwarding to the TNEB Chennai Head Quarters for Bill processing and follow up in TNEB, Head Quarters. Collection of Technical report from EE/Tr and Processing the bill at concerned SE/GCC, sending the LOA to central payment at Chennai and follow up of the PVC, balance payment, erection payment etc.

C) BRIEF NATURE OF SCOPE OF WORK:

Wherever requested, you shall undertake the unloading, erection of the transformer supplied and to make the transformer ready for testing and commissioning and it includes the following:

- a) Unloading the Transformer from the trailer on the plinth or if the plinth is not ready the Transformer shall be unloaded adjacent to plinth/ any other site as decided by their Site Engineer. The accessories shall also be unloaded. Placing of the transformer on the plinth and fixing of wheels and carrying out stop block welding including moving the transformer to the plinth, where the transformer is supplied and unloaded near the plinth.
- b) Whenever necessary, proper arrangement for attaching slings for lifting shall be provided.
- c) The Contractor has to supply, lay, erect and weld M.S. Channel, Flat of the 50x8 mm. sizes, including green painting and providing with adequate bolts and nuts as applicable. 50x8mm. Flat with suitable M.S. Channel for earthing with neutral bushing at two different earth points of existing earth pit, Transformer tank, Cooler fan and pumps. D.M. box RTCC panel & other accessories body earthing with required standards.
- d) Erection of the following, wherever applicable:
 - (i) HV bushing with turrets
 - (ii) LV and neutral bushing with turrets.
 - (iii) Cable boxes
 - (iv) Bushing current transformers
 - (v) Conservators
 - (vi) Valves
 - (vii) Radiators
 - (viii) Fans/pumps
 - (ix) Buchholz relay
 - (x) Surge relay

- (xi) Gaskets
- (xii) Temperature indicators
- (xiii) Others wherever stated

e) Erection of the Drive Mechanism Box, Marshalling at site with equipment and RTCC Panel in the control room after removing the existing panel, if any.

f) Filling of transformer oil in the transformer and OLTC under hot oil circulation, vacuum drying wherever applicable/necessary to the required level and circulation of oil till satisfactory results are obtained before commissioning.

g) i) The Contractor scope of work shall include all the control cables required for the successful commissioning of Power Transformers including supply, laying, providing suitable glands ferrules, lugs, termination etc., but not limited to the above mentioned for successful commissioning of the transformer as per standard requirement.

- 1) Protection schemes of Power Transformer including differential protection cable.
- 2) Indication/Annunciation scheme for cooler fan and pumps.
- 3) OLTC Remote operation
- 4) OLTC fan, pump D.M. power supply cable
- 5) DC cable from control room to Transformer
- 6) Scada scheme for Remote/Automation operation
- 7) CTs cable from CT secondary to Marshalling Box and Marshalling box to LV panel/RTCC panels
- 8) Any other control cable with required site for successful commissioning of the transformer
- 9) Interconnection of cables for AC/DC panels to RTCC/LV panels

All Cables required will be supplied by AYCL. The length of cables will be decided at the time of allocation of Destination by TANTRANSCO.

h) One Coat of Aluminum Painting as required will be carried out so as to maintain the finish of the surface of the transformer and accessories prior to the erection of the same at site. Top metal portions of the HV& LV Bushings are to be painted with Red, Yellow & Blue. All the LV & HV (if any) Neutral and neutral flats & Tank, OLTC, Marshalling Box, etc. earthing flats are to be painted with green.

i) Any assistance required for testing and commissioning of Transformer.

Any other works not covered in the items detailed above but required for satisfactory commissioning of the power transformer shall also to be carried out by the contractor.

1. LOSS OR DAMAGE:

The contractor is responsible for the safe erection of the equipment/ materials.

2. SCHEDULE OF UNLOADING:

The transformer should be unloaded on the plinth/ nearby plinth wherever applicable within three days of receiving message from us/ two days of trailer/truck reaching the site. If any delay beyond the above in unloading the transformer/ accessories the halting charges of trailer/ truck will be deducted from your bill.

3. SCHEDULE OF ERECTION:

The erection work shall be completed for the transformer entrusted within very short period (Maximum and minimum time of erection, etc work to be specified in the offer) from the date of handing over the site/ plinth by TANTRANSO (TNEB).

The date of readiness of transformer for testing to be intimated at least before three days so as to inform our Client and arrange for the testing/ commissioning as per their schedule.

4. FAILURE TO EXECUTE THE CONTRACT:

Contractor failing to execute the contract placed on them to the satisfaction of the Andrew Yule & Co. under the terms and conditions set forth therein, will be liable to make good the loss sustained by the Andrew Yule & Co. Ltd., consequent to the placing of fresh orders elsewhere at higher rate, i.e. the difference between the price accepted in the contract already entered into and the price at which fresh orders have been placed.

5. DEFECTIVE ERECTION

If during the period of erection, it is found that goods already erected are defective in workmanship or do not confirm to specification or unsuitable for the purpose for which they are erected, then it will be open to AYCL either to repudiate the entire contract and claim such loss that AYCL may suffer on that account or require the contractor to rectify the work.

Similarly, if during the guarantee period of the transformer, any of the goods found to be defective in workmanship or do not confirm to specification or are unsuitable for the purpose for which they are erected, it will be open to AYCL either to repudiate the entire contract and claim damages or accept such parts of the goods that are satisfactory and require the contractor to replace the balance or to claim compensation for the entire loss sustained by the AY&CO. on that account.

6. Legal condition:

Any contract entered against this tender will be as per the following legal condition

It is recorded that this purchase order / contract / agreement is executed and concluded by and between the parties hereto at premises No.5/346, Old Mahabalipuram Road, Perungudi, Chennai 600 096 and in the event any dispute arises out of this agreement between the parties only the appropriate Civil Court in the City of Kolkata shall have the exclusive jurisdiction to entertain, try and determine the said proceedings in exclusion of all other courts.

7. REGULATION OF LOCAL AUTHORITIES AND STATUTES:

The Contractor shall comply with all the rules and regulations of local authorities during the performance of its field activities. The Contractor shall also comply with the Minimum Wages Act, 1948 and the payment of Wages Act (both of the Government of India) and the rules made there under in respect of any employee or workman employed or engaged by it or its Sub-Contractor.

8. OWNERS (Our Client like TNEB) LIEN ON EQUIPMENT:

The Owner shall have lien on all equipment including those of the Contractor, brought to the Site for the purpose of erection, testing and

commissioning of the plant. The Owner shall continue to hold the lien on all such equipment throughout the period of Contract. No material brought to the site shall be removed from the site by the Contractor and/or its Sub-contractors without prior written approval of the Site Engineer.

9. INSPECTION, TESTING AND INSPECTION CERTIFICATES:

The Site Engineer shall have the right to re-inspect any equipment, even though the same may have been previously inspected and approved by him at the Contractor's works, before and after the same are erected at Site. If by the above inspection, the Site Engineer rejects any equipment, the Contractor shall make good such rejected equipment etc., either by replacement or modification/repairs as may be necessary to the satisfaction of the Site Engineer. Such re-placements will also include the replacements or re-execution of such of those works of other Contractors and/or agencies, which might have got damaged or affected by the replacements or re-work done to the Contractor's work.

10. ACCESS TO SITES AND WORKS ON SITE:

The works so far as it is carried out on the Client premises, shall be carried out at such times as the TNEB may approve and TNEB shall give the Contractor reasonable facilities for carrying out the works.

During the execution of works, no person other than the contractor or its duly appointed representative, Sub-Contractor and workmen, shall be allowed to do work on the site except by the special permission, in writing of the Site Engineer or his representative.

11. CO-OPERATION WITH OTHER CONTRACTORS

The Contractor shall co-operate with all other Contractors or tradesmen/representative(s) of the Owner, who may be performing other works on behalf of the Owner and the workmen who may be employed by the Owner and doing work in the vicinity of the works under the Contract. The Contractor shall also so arrange to perform its work as to minimise, to the maximum extent possible, interference with the work of other Contractors and their work-men. Any injury or damage that may be sustained by the employee(s) of the other contractors and the Owner, due to the Contractor's work shall promptly be made good by the Contractor at its own expense. The site Engineer shall determine the resolution of any difference or conflict that may arise between the Contractor and other Contractors or between the Contractor and the workmen of the Owner in regard to their work. If the work of the Contractor is delayed because of any acts of omission of another Contractor, the Contractor shall have no claim against the Owner on that account other than an extension of time for completing its works.

The Site Engineer shall be notified promptly by the Contractor of any defects in the other Contractor's works that could affect the Contractor's works. The Site Engineer shall determine the corrective measures, if any, required to rectify this situation after inspection of the works and such decisions by the Site Engineer shall be binding on the Contractor.

12 DISCIPLINE OF WORKMEN

The Contractor shall adhere to the disciplinary procedure set by the Site Engineer in respect of its/its Sub-Contractor's employees and workmen at site. The Site Engineer shall be at liberty to object to the presence of any representative or

employee of the Contractor/its Sub-Contractor at the site, if in the opinion of the Site Engineer such representative/ employee has misconduct himself or is incompetent or negligent or other-wise undesirable. The Contractor shall remove such person(s) objected to, and provide competent replacement in his place.

13. PROTECTION OF WORK

The Contractor shall have total responsibility for protecting its works till it is finally taken over by the Site Engineer. No claim will be entertained by the Owner or by the Site Engineer for any damage or loss to the Contractor's works and the Contractor shall be responsible for complete restoration of the damaged works to original conditions, to comply with the specification(s) and drawings. Should any such damage to the Contractor's works occur because of any other party not being under its supervision or control, the Contractor shall make its claim directly to the party concerned without involving the Owner.

The Contractor shall not cause any delay in the repair of such damaged works because of any delay in the resolution of such disputes. The Contractor shall proceed to repair the work immediately and no cause thereof will be assigned pending resolution of such disputes.

14. EMPLOYMENT OF LABOUR

1 The Contractor will be expected to employ on the work only its regular skilled employees with experience in the particular type of work. No female labour shall be employed after darkness. No person below the age of eighteen years shall be employed.

2 All traveling expenses including provisions of all necessary transport to and from site, lodging allowances and other payments to the Contractor's employees shall be the sole responsibility of the Contractor.

3 The hours of work on the site shall be decided by the Owner and the Contractor shall adhere to it. Working hours will normally be eight (8) hours per day-Monday through Saturday.

4 Contractor's employees shall wear identification badges while on work at Site.

5 In case the Owner becomes liable to pay any wages or dues to the labour or any Government agency under any of the provisions of the Minimum Wages Act, Workmen Compensation Act, Contract Labour Regulation Abolition Act or any other law due to act of omission of the Contractor, the Owner may make such payments and shall recover the same from the Contractor's bills.

6. The Contractor shall be provided with free supply of electricity for the purposes of the Contract only, at one point in the project Site. The Contractor, at its own cost shall make its own further distribution arrangement. All temporary wiring shall comply with local regulations and will be subject to Site Engineer's inspection and approval before connection to supply.

15. FACILITIES TO BE PROVIDED BY THE CONTRACTOR

i Tools, scaffolding and tackle

ii. The Contractor shall bring to site all the construction /erection equipment tools, tackle, scaffolding etc required for pre-assembly, erection of the equipment

covered under the contract. He shall submit a list of all such materials to the Site Engineer before the commencement of pre- assembly at Site.

iii. The following items are generally required

(1) Lifting equipment:

- (a) Derrick or mobile crane of adequate capacity.
- (b) wire ropes
- (c) pulley blocks
- (d) chain blocks
- (e) Manila ropes,
- (f) shackles
- (g) sleepers.

(2) Oil purifier with heating and vacuum facilities and hot oil resistant hose pipes.

(3) Vacuum pump

(4) Oil storage tank.

iv. The Owner shall have a lien on such goods for any sum or sums which may at any time be due or owing to it by the Contractor.

v. After the completion of the Works, the Contractor shall not remove from the Site, the materials such as construction equipment, erection tools and tackle, scaffolding etc. without permission of the Site Engineer.

16. First - Aid

The Contractor shall provide necessary first-aid facilities for all its employees, representatives and workmen working at the site. Adequate number of Contractor's personnel shall be trained in administering first-aid.

17. Cleanliness

1. The Contractor shall be responsible for keeping the entire allotted area clean and free from rubbish, debris etc. during the period of Contract.

2. Waste oil shall be disposed off in a manner acceptable to the Owner. Under no circumstances shall waste oil be dumped into uncontrolled drains.

18. FIRE PROTECTION

1. All the Contractor's supervisory personnel and sufficient number of workers shall be trained for fire-fighting and shall be assigned specific fire protection duties. Enough of such trained personnel shall be available at the Site during the entire period of the Contract.

2. The Contractor shall provide enough fire protection equipment of the types and number for the ware-house, office, temporary structures, labour colony area etc. Access to such fire protection equipment, shall be easy and kept open at all times.

19. SECURITY

The Contractor shall have total responsibility for all equipment and materials in its custody, stored, loose, semi-assembled and/or erected by it at Site. The Contractor shall make suitable security arrangements including employment of security personnel to ensure the protection of all materials, equipment and works from theft,

fire, pilferage and any other damages and loss. All materials of the Contractor shall enter and leave the work site only with the written permission of the Site Engineer in the prescribed manner.

20. MATERIALS HANDLING AND STORAGE

1. All the equipment furnished under the Contract and arriving at Site shall be promptly received, unloaded and transported and stored in the storage by the Contractor.
2. The Contractor shall be responsible for examining all the consignment and shall notify the Site Engineer immediately of any damage, shortage, discrepancy etc. for the purpose of Site Engineer's information only. However, the Contractor shall be solely responsible for any shortages or damage in transit, handling and/or in storage and erection of the equipment at site as well as for preferring all claims with the underwriter(s). Any demurrage, wharfage and other such charges claimed by the transporters, railways etc., shall be to the account of the Contractor.
3. The Contractor shall maintain an accurate and exhaustive record detailing out the list of all equipment received by it for the purpose of erection and keep all such record open for the inspection of the Site Engineer.
4. All equipment shall be handled very carefully to prevent any damage or loss. No bare wire ropes, slings, etc. shall be used for unloading and/or handling of the equipment without the specific written permission of the Site Engineer. The equipment stored shall be properly protected to prevent damage either to the equipment or to the floor where they are stored.
5. The Contractor shall ensure that all the packing materials and protection devices used for the various equipment during transit and storage are removed before the equipment are installed.
6. All the materials stored in the open or dusty location(s) shall be covered with suitable weather-proof and flameproof covering material, wherever applicable.
7. The Contractor shall be responsible for making suitable indoor storage facilities, to store all equipment which requires indoor storage. Normally, all the electrical equipment such as motors, control gears and consumables shall be stored in the closed storage space.

21. CONSTRUCTION MANAGEMENT

1. The field activities of the Contractor's working at site, will be coordinated by the Site Engineer and the Site Engineer's decision shall be final in resolving any dispute or conflict between the Contractor and other Contractors and tradesmen of the Owner regarding scheduling and co-ordination of work. Such decision by the Site Engineer shall not be a cause for extra compensation or extension of time for the Contractor.
2. Time is the essence of the Contract and the Contractor shall be responsible for performance of its works in accordance with the specified construction schedule.

22. PROTECTION OF PROPERTY AND CONTRACTOR` S LIABILITY

The Contractor shall be responsible for any damage resulting from its operations. It shall also be responsible for protection of all persons including members of public and employees of the owner and the employees of other Contractors and Sub-Contractors and all public and private property including structures, building, other plants and equipment and utilities either above or below the ground.

23. INSURANCE

1. In addition to the conditions covered under the Clause, titled Insurance the following provisions will also apply to the portion of works to be done beyond the Contractor's own or its Sub-Contractor's manufacturing Works.

2. Workmen's Compensation Insurance

This insurance shall protect the Contractor against all claims applicable under the Workmen's Compensation Act, 1948(Government of India). This policy shall also cover the Contactor against claims for injury, disability disease or death of its or its Sub-Contractor's employees, which for any reason are not covered under the Workmen's Compensation Act, 1948.

The liabilities shall not be less that

Workmen's Compensation :	As per statutory Provisions
Employee's liability :	As per statutory Provisions

3. Comprehensive Automobile Insurance

This insurance shall be in such form to protect the Contractor against all claims for injuries, disability, disease and death to members of public including the Owner's men and damage to the property of other arising from the use of motor vehicles during on or off the Site operations, irrespective of the owner-ship of such vehicles. The minimum liability covered shall be as herein indicated:

Fatal Injury	:	Rs. 100,000 each person
	:	Rs. 200,000 each occurrence
Property Damage	:	Rs. 100,000 each occurrence

4. Comprehensive General Liability Insurance

4.1. The insurance shall protect the Contractor against all claims arising from injuries, disabilities, disease or death of members of public or damage to property of others, due to any act or omission on the part of the Contractor, its agents, its employees, its representatives and Sub Contractors or from riots, strikes and civil commotion. This insurance shall also cover all the liabilities of the Contractor arising out of the Clause titled Defence of Suits under General Conditions of Contract of this Volume-1A.

4.2. The hazards to be covered will pertain to all the works and areas where the Contractor, its Sub-Contractors, its agents and employees have to perform work pursuant to the Contract.

5. The above are only illustrative list of insurance covers normally required and it will be the responsibility of the Contractor to maintain all necessary insurance coverage to the extent both in time and amount to take care of all its liabilities either direct or indirect, in pursuance of the Contract.

24. WORK & SAFETY REGULATIONS

1. The Contractor shall ensure proper safety of all the workmen, materials plant and equipment belonging to it or to the others, working at the site. The Contractor shall also be responsible for provision of all safety notices and safety equipment required by the relevant legislations and deemed necessary by the Site Engineer.
2. All equipment used in construction and erection by Contractor shall meet Indian/International Standards and where such standards do not exist, the Contractor shall ensure these to be absolutely safe. All equipment shall be strictly operated and maintained by the Contractor in accordance with manufacturer's operation manual and safety instructions and as per Guidelines/Rules in this regard.
3. Periodical examinations and all tests for all lifting/hoisting equipment & tackle shall be carried-out in accordance with the relevant provisions of Factories Act 1948, Indian Electricity Act and associated Laws/Rules in force from time to time. A register of such examinations and tests shall be properly maintained by the Contractor and will be promptly produced as and when desired by Site Engineer or by the persons authorised by him.
4. No electric cable in use by the Contractor/Owner will be disturbed without prior permission.
5. No repair work shall be carried out on any live equipment. The equipment must be declared safe by the Site Engineer and a permit to work shall be issued by the Site Engineer before any repair work is carried out by the Contractor. While working on electric lines/equipment whether live or dead, suitable type and sufficient quantity of tools will have to be provided by Contractor to electricians/workmen/officers.
6. The Contractor shall employ necessary number of qualified, full time electricians/electrical supervisors to maintain its temporary electrical installations.
7. In case any accident occurs during the construction/ erection or other associated activities undertaken by the Contractor, thereby causing any minor or major or fatal injury to its employees due to any reason whatsoever, it shall be the responsibility of the Contractor to promptly inform the same to the Site Engineer in prescribed form and also to all the authorities envisaged under the applicable laws.
8. The Site Engineer shall have the right at its sole discretion to stop the work, if in its opinion the work is being carried out in such a way as may cause accidents and endanger the safety of the persons and/or property, and/or equipment. In such cases, the Contractor shall be informed in writing about the nature of hazards and possible injury/accident and he shall comply to remove short- comings promptly. The Contractor, after stopping the specific work, can, if felt necessary, appeal against the order of stoppage of work to the Site Engineer within 3 days of such stoppage of work and the decision of the Site Engineer in this respect shall be conclusive and binding on the Contractor.
9. The Contractor shall not be entitled for any damages/compensation for stoppage of work due to safety reasons as provided above and the period of such stoppage of work will not be taken as an extension of time for completion of work and will not be the ground for waiver of levy of liquidated damages.

10. The Contractor shall follow and comply with all Safety Rules, relevant provisions of applicable laws pertaining to the safety of workmen, employees plant and equipment as may be prescribed from time to time without any demur, protest or contest or reservation. In case of any unconformity between statutory requirement and Safety Rules referred above, the latter shall be binding on the Contractor unless the statutory provisions are more stringent.

11. If the Contractor does not take all safety precautions and/or fails to comply with the Safety Rules as prescribed by the Owner or as prescribed under the applicable law for the safety of the equipment, plant and personnel and the Contractor does not prevent hazardous conditions which may cause injury to its own employees or employees of other Contractors, or Owner or any other person at Site or adjacent thereto, the Contractor shall be responsible for payment of compensation to the Owner as per the following schedule :-

- | | | | |
|-------------------------------|---|----------------|--------------------------|
| a) Fatal injury or accident | } | Rs. 1,00,000/- |) These are |
| causing death | } | (per person) | applicable |
| | | | for death injury |
| | | | to any person whosoever. |
| b) Major injuries or accident | } | Rs. 20,000/- | |
| accident causing 25% or | } | (per person) | |
| or more permanent disability | } | | |
| to work men or employees | } | | |

Permanent disability shall have the same meaning as indicated in Workmen's Compensation Act. The compensation mentioned above shall be in addition to the compensation payable to the workmen/employees under the relevant provisions of the Workmen's Compensation Act and rules framed there under or any other applicable law as applicable from time to time. In case the Owner is made to pay such compensation, the Contractor will be liable to reimburse the Owner such amount(s) in addition to the compensation indicated above.

25. CODE REQUIREMENTS

The erection requirements and procedures to be followed during the installation of the equipment shall be in accordance with the relevant ASME codes, accepted good engineering practice, the Engineer's Drawings and other applicable Indian codes and laws and regulations of the Government of India.

26. CHECK OUT OF CONTROL SYSTEMS

After completion of wiring and cabling the Contractor shall check out the operation of all control systems for the equipment furnished and installed under these specifications and documents.

27. CABLING

1. All cables shall be supported by conduits or cable tray run in air or in cable channels. These shall be installed in exposed runs parallel or perpendicular to dominant surfaces with right angle turn made of symmetrical bends for fittings. When cables are run on cable trays, they shall be clamped at minimum intervals of 2000 mm or otherwise as directed by the Site Engineer.

2. Each cable, whether power or control, shall be provided with a metallic or plastic tag of an approved type, bearing a cable reference number indicated in the cable and conduit list (prepared by the Contractor), at every 5 meter run or part thereof and at both ends of the cable adjacent to the terminations. Cable routing is to be done in such a

way that cables are accessible for any maintenance and for easy identification.

3. Sharp bending and kinking of cables shall be avoided. The minimum radii for PVC insulated cables 1100 V grade shall be $15 D$ where D is the overall diameter of the cable. Installation of other cables like high voltage, coaxial, screened, compensating, mineral insulated shall be in accordance with the cable manufacturer's recommendations. Wherever cables cross roads and water, oil, sewage or gaslines, special care should be taken for the protection of the cables in designing the cable channels.

4. In each cable run some extra length shall be kept at a suitable point to enable one or two straight through joints to be made, should the cable develop fault at a later date.

5. Control cable terminations shall be made in accordance with wiring diagrams, using identifying codes subject to Site Engineer's approval. Multicore control cable jackets shall be removed as required to train and terminate the conductors. The cable jacket shall be left on the cable as far as possible to the point of the first conductor branch. The insulated conductors from which the jacket is removed shall be neatly twined in bundles and terminated. The bundles shall be firmly but not tightly tied utilising plastic or nylon ties or specifically treated fungus protected cord made for this purpose. Control cable conductor insulation shall be securely and evenly out.

6. The connectors for control cables shall be covered with a transparent insulating sleeve so as to prevent accidental contact with ground or adjacent terminals and shall preferably terminate in Elmex terminals and washers. The insulating sleeve shall be fire resistant and shall be long enough to over pass the conductor insulation. All control cables shall be fanned out and connection made to terminal blocks and test equipment for proper operation before cables are corded together.

For item no4: Unloading, erection, testing & commissioning of 16 MVA, 15.75/6.9 KV class Power transformer at Raichur thermal station- Karnataka (FO: 3599)

The scope of work includes the unloading, erection, testing & commissioning of 2 no. of 16 MVA, 15.75/6.9 KV, 2 WINDING, 3 Phase, 50 HZ Dyn11, ONAN cooled spare unit auxiliary transformer with oil with off circuit Tap changer with accessories & spares along with Neutral Grounding Transformer (NGT) T-2 Nos & Neutral Grounding Resistor (NGR)—2 Nos at Raichur Thermal station- Karnataka.

1) a) 16 MVA, 15.75/6.9 KV class Transformer Details (FO: 3599)

1) Length of Transformer	: 4.17 meters (Approx.)
2) Width of Transformer	: 2.36 meters (Approx.)
3) Height of Transformer	: 2.79 meters (Approx.)
4) Accessories Weight	: 5.8 MT (Approx.)
5) Transport Weight	: 27.7 MT (Approx)
6) Total oil quantity	: 6500 liters

b) Neutral Grounding Transformer (NGT)

1) Length of Transformer	: 1.91 meters (Approx.)
2) Width of Transformer	: 1.93 meters (Approx.)
3) Height of Transformer	: 1.91 meters (Approx.)
4) Transport Weight	: 0.5 MT (Approx)

c) Neutral Grounding Resistors (NGR)

- | | |
|--------------------------|-------------------------|
| 1) Length of Transformer | : 1.32 meters (Approx.) |
| 2) Width of Transformer | : 1.22 meters (Approx.) |
| 3) Height of Transformer | : 1.37 meters (Approx.) |
| 4) Transport Weight | : 0.35 MT (Approx) |

A) UNLOADING:

- i) Charges for unloading of main transformer and accessories and placing it in the plinth and fixing the wheels/ near the plinth/ inside the store, etc. as per our/ Client Instruction. Separate per meter charges for leading the main transformer for more than 15 m (minimum 15 m leading is to be included in the main scope), to be mentioned.

B) ERECTION:

Erection, CT Testing, Co-ordination with KPCL, oil filtering, wiring, testing coordination and Commissioning of the transformer.

- a) Erection of transformer, radiators, conservator tank, pipe fittings, bushings, OLTC and other accessories. Wiring of instruments up to Marshalling box panel.
- b) Oil filling and filtration of oil as required.
- c) Grounding of neutral, tank, etc.
- d) Meggering of transformer for HV-LV, HV-E & LV-E
- e) OLTC manual operation.
- f) Checking of all protection systems and assistant in pre commissioning tests.
- g) One coat of finish painting.

One coat of Epoxy- Light Grey Paint IS 5 shade no 631 (**paint is in bidders scope**) as required as per the satisfaction of AYCL / our client officials to be carried out so as to maintain the finish of the surface of the transformer and accessories prior to commission of the transformer. Top metal portions of the HV& LV Bushings are to be painted with Red, Yellow & Blue. All the LV& HV (if any) Neutral and neutral flats & Tank, OLTC, Marshalling Box, etc. earthing flats are to be painted with green.

A coat of painting should be done on the top surface of the transformer after testing.

Note: The Oil filtration should be done with a High Vacuum filter plant of capacity 4500litres/ hour or more.

C) PRE COMMISSIONING TESTS TO BE CARRIED OUT:

- 1. Insulation resistance test, Measurement of PI.
- 2. Ratio, Polarity and vector relationships.
- 3. Di-electric test on oil & Dissolved gas Analysis.
- 4. SFRA.
- 5. Resistance.

6. Magnetic balance test.
7. Any other test recommended by the bidder.

D) BRIEF NATURE OF SCOPE OF WORK:

1. PROTECTION OF WORK

The contractor shall have total responsibility for protecting its work till it is finally taken over by the Site Engineer. No claim will be entertained by the Client or by the Site Engineer for any damage or loss to the Contractor's works and the Contractor shall be responsible for complete restoration of the damaged works to original conditions, to comply with the specification(s) and drawings. Should any such damage to the Contractor(s) works occur because of any other party being under its supervision or control, the Contractor shall make its claim directly to the party concerned without involving the Client/ AY&CO., If disagreement or conflict or dispute develops between the Contractor and the other party or parties concerned regarding the responsibility for damage to the Contractor's works the same shall be resolved as per mutual agreement/ from the bill of the Contractor. The Contractor shall not cause any delay in the repair of such damaged works because of any delay in the resolution of such disputes. The Contractor shall proceed to repair the work immediately and no cause thereof will be assigned pending resolution of such disputes.

2. EMPLOYMENT OF LABOUR:

i) The Contractor will be expected to employ on the work only its regular skilled employees with experience in the particular type of Work. No female labour shall be employed after darkness. No person below the age of eighteen years shall be employed.

ii) All traveling expenses including provisions of all necessary transport to and from site, lodging allowances and other payments to the Contractor's employees shall be sole responsibility of the Contractor.

iii) Working hours at the Site shall be decided by the Client and the Contractor shall adhere to it. Working hours normally be (Eight) hours per day - Monday through Saturday.

iv) In case of the AY&CO. /Our Client becomes liable to pay any wages or dues to the labour or any Government agency under any of the provisions of the Minimum Wages Act, Workmen Compensation Act, Contract Labour Regulation Abolition act or any other law due to act of omission of the Contractor, the AY&CO. / Client may make such payments and shall recover the same from the Contractor's bill.

v) The Contractor shall be provided with free supply of electricity for the purposes of the Contract only, at one point in the project Site. The Contractor, at its own cost shall make its own further distribution arrangement. All the temporary wiring shall comply with local regulations and will subject to Site Engineer's inspection and approval before connection to supply.

3. FACILITIES TO BE PROVIDED BY THE CONTRACTOR:

i) Tools & tackles, scaffolding etc.

ii) The Contractor shall bring to site all the construction/ erection equipment tools, tackle, scaffolding etc. required for pre-assembly, erection of the equipment covered under the Contract. He shall submit a list of all such materials to the Site Engineer before commencement of pre-assembly at site.

iii) The following items are generally required:

1) Lifting equipment:

- a) Mobile Crane of adequate capacity or Derrick
- b) Wire rope
- c) Pulley blocks
- d) Chain blocks
- e) Manila ropes
- f) Shackles
- g) Jacks
- h) Sleeper wood

2) Hi- vacuum Oil filtration plant of capacity 4500Litres/ hour or above (with inbuilt heaters) and hot oil resistant hose pipes, Oil testing 'BDV' Kit with go/no go gauge.

3) Vacuum pump if needed

4) Oil storage tank if needed.

iv) The Client shall have a lien on such goods for any sum or sums, which may at any time be due or owing to it by the Contractor.

v) After the completion of the Works, the Contractor shall not remove from the Site, the materials such as Construction equipment, erection tools and tackle, scaffolding, etc. without permission of the Site Engineer.

4. FIRST AID:

The Contractor shall provide necessary first-aid facilities for all its employees, representatives and workmen working at the site. Adequate number of Contractor's personnel shall be trained in administering the first-aid.

5. FAILURE TO EXECUTE THE CONTRACT:

Contractor failing to execute the contract placed on them to the satisfaction of the Andrew Yule & Co. under the terms and conditions set forth therein, will be liable to make good the loss sustained by the Andrew Yule & Co. Ltd., consequent to the placing of fresh orders elsewhere at higher rate, i.e. the difference between the price accepted in the contract already entered into and the price at which fresh orders have been placed.

6. DEFECTIVE ERECTION

If during the period of erection, it is found that goods already erected are defective in workmanship or do not confirm to specification or unsuitable for the purpose for which they are erected, then it will be open to AYCL either to repudiate the entire contract and claim such loss that AYCL may suffer on that account or require the contractor to rectify the work.

Similarly, if during the guarantee period of the transformer, any of the goods found to be defective in workmanship or do not confirm to specification or are unsuitable for the purpose for which they are erected, it will be open to AYCL either to repudiate the entire contract and claim damages or accept such parts of the goods that are satisfactory and require the contractor to replace the balance or to claim compensation for the entire loss sustained by the AY&CO. on that account.

7. The Contractor shall comply with all the rules and regulations of local authorities during the performance of its field activities. The Contractor shall also comply with the Minimum Wages Act, 1948 and the payment of Wages Act (both of the

Government of India) and the rules made there under in respect of any employee or workman employed or engaged by it or its Sub-Contractor.

8.PROTECTION OF PROPERTY AND CONTRACTOR`S LIABILITY

The Contractor shall be responsible for any damage resulting from its operations. It shall also be responsible for protection of all persons including members of public and employees of the owner and the employees of other Contractors and Sub-Contractors and all public and private property including structures, building, other plants and equipment and utilities either above or below the ground.

9. INSURANCE

a) In addition to the conditions covered under the Clause, titled Insurance the following provisions will also apply to the portion of works to be done beyond the Contractor's own or its Sub-Contractor's manufacturing Works.

b) Workmen's Compensation Insurance

This insurance shall protect the Contractor against all claims applicable under the Workmen's Compensation Act, 1948(Government of India). This policy shall also cover the Contactor against claims for injury, disability disease or death of its or its Sub-Contractor's employees, which for any reason are not covered under the Workmen's Compensation Act, 1948.

The liabilities shall not be less than

Workmen's Compensation :	As per statutory Provisions
Employee's liability :	As per statutory Provisions

c) Comprehensive Automobile Insurance

This insurance shall be in such form to protect the Contractor against all claims for injuries, disability, disease and death to members of public including the Owner's men and damage to the property of other arising from the use of motor vehicles during on or off the Site operations, irrespective of the owner-ship of such vehicles. The minimum liability covered shall be as herein indicated:

Fatal Injury	:	Rs. 100,000 each person
	:	Rs. 200,000 each occurrence
Property Damage	:	Rs. 100,000 each occurrence

a) Comprehensive General Liability Insurance

1. The insurance shall protect the Contractor against all claims arising from injuries, disabilities, disease or death of members of public or damage to property of others, due to any act or omission on the part of the Contractor, its agents, its employees, its representatives and Sub Contractors or from riots, strikes and civil commotion.

2. The hazards to be covered will pertain to all the works and areas where the Contractor, its Sub-Contractors, its agents and employees have to perform work pursuant to the Contract.

e. The above are only illustrative list of insurance covers normally required and it will be the responsibility of the Contractor to maintain all necessary insurance coverage to the extent both in time and amount to take care of all its liabilities either

direct or indirect, in pursuance of the Contract.

10. WORK & SAFETY REGULATIONS

1. The Contractor shall ensure proper safety of all the workmen, materials plant and equipment belonging to it or to the others, working at the site. The Contractor shall also be responsible for provision of all safety notices and safety equipment required by the relevant legislations and deemed necessary by the Site Engineer.

2. All equipment used in construction and erection by Contractor shall meet Indian/International Standards and where such standards do not exist, the Contractor shall ensure these to be absolutely safe. All equipment shall be strictly operated and maintained by the Contractor in accordance with manufacturer's operation manual and safety instructions and as per Guidelines/Rules in this regard.

3. Periodical examinations and all tests for all lifting/hoisting equipment & tackle shall be carried-out in accordance with the relevant provisions of Factories Act 1948, Indian Electricity Act and associated Laws/Rules in force from time to time. A register of such examinations and tests shall be properly maintained by the Contractor and will be promptly produced as and when desired by Site Engineer or by the persons authorised by him.

4. No electric cable in use by the Contractor/Owner will be disturbed without prior permission.

5. No repair work shall be carried out on any live equipment. The equipment must be declared safe by the Site Engineer and a permit to work shall be issued by the Site Engineer before any repair work is carried out by the Contractor. While working on electric lines/equipment whether live or dead, suitable type and sufficient quantity of tools will have to be provided by Contractor to electricians/workmen/officers.

6. The Contractor shall employ necessary number of qualified, full time electricians/electrical supervisors to maintain its temporary electrical installations.

7. In case any accident occurs during the construction/ erection or other associated activities undertaken by the Contractor, thereby causing any minor or major or fatal injury to its employees due to any reason whatsoever, it shall be the responsibility of the Contractor to promptly inform the same to the Site Engineer in prescribed form and also to all the authorities envisaged under the applicable laws.

8. The Site Engineer shall have the right at its sole discretion to stop the work, if in its opinion the work is being carried out in such a way as may cause accidents and endanger the safety of the persons and/or property, and/or equipment. In such cases, the Contractor shall be informed in writing about the nature of hazards and possible injury/accident and he shall comply to remove short-comings promptly. The Contractor, after stopping the specific work, can, if felt necessary, appeal against the order of stoppage of work to the Site Engineer within 3 days of such stoppage of work and the decision of the Site Engineer in this respect shall be conclusive and binding on the Contractor.

9. The Contractor shall not be entitled for any damages/compensation for stoppage of work due to safety reasons as provided above and the period of such stoppage of work will not be taken as an extension of time for completion of work and will not be the ground for waiver of levy of liquidated damages.

10. The Contractor shall follow and comply with all Safety Rules, relevant provisions of applicable laws pertaining to the safety of workmen, employees plant and equipment as may be prescribed from time to time without any demur, protest or contest or reservation. In case of any unconformity between statutory requirement and Safety Rules referred above, the latter shall be binding on the Contractor unless the statutory provisions are more stringent.

11. If the Contractor does not take all safety precautions and/or fails to comply with the Safety Rules as prescribed by the Owner or as prescribed under the applicable law for the safety of the equipment, plant and personnel and the Contractor does not prevent hazardous conditions which may cause injury to its own employees or employees of other Contractors, or Owner or any other person at Site or adjacent thereto, the Contractor shall be responsible for payment of compensation to the Owner as per the following schedule :-

- a) Fatal injury or accident } Rs. 1,00,000/-) These are applicable for death
causing death } (per person) injury to any person whosoever
- b) Major injuries or accident } Rs. 20,000/-
accident causing 25% or } (per person)
or more permanent disability }
to work men or employees }

Permanent disability shall have the same meaning as indicated in Workmen's Compensation Act. The compensation mentioned above shall be in addition to the compensation payable to the workmen/employees under the relevant provisions of the Workmen's Compensation Act and rules framed there under or any other applicable law as applicable from time to time. In case the Owner is made to pay such compensation, the Contractor will be liable to reimburse the Owner such amount(s) in addition to the compensation indicated above.

PRICE FORMAT FOR UNLOADING, ERECTION, COMMISSIONING & TESTING OF POWER TRANSFORMERS

SI. NO	DESCRIPTION	QTY	BASIC PRICE PER No (Rs)	SGST (%) (If not applicable please enter Zero)	CGST (%) (If not applicable please enter Zero)	IGST (%) (If not applicable please enter Zero)	Landed cost per No (In Rs)
		Nos	A			D	Landed Cost = a
1	Unloading of 31.5 MVA, 66KV class power transformer At Anywhere in Karnataka (FO: 3634) as per enclosed detailed scope of work Annexure V	3					
2	Leading charges after 15 meters Rate per Meter (in Rs) for 31.5 MVA, 66KV class power transformer.	3					
3	Unloading of 10 MVA, 110/33-11 KV class power transformer At Anywhere in Karnataka (FO: 3627) as per enclosed detailed scope of work Annexure V	17					
4	Leading charges after 15 meters Rate per Meter (in Rs) for 10 MVA, 110/33-11 KV class power transformer	17					
5	Unloading of 16 MVA, 110 KV class power transformer At Anywhere in Tamilnadu (FO: 3632 & 3633) as per enclosed detailed scope of work Annexure V	12					

6	Leading charges after 15 meters Rate per Meter (in Rs) for 16 MVA, 110 KV class power transformer	12					
7	Erection of 16 MVA, 110 KV class power transformer At Anywhere in Tamilnadu (FO: 3632 & 3633) as per enclosed detailed scope of work Annexure V	12					
8	Unloading 16 MVA, 15.75/6.9 KV class power transformer and also 2 Nos of NGT & NGR at Raichur Thermal station- Karnataka (FO: 3599) as per enclosed detailed scope of work Annexure V	2					
9	Leading charges after 15 meters Rate per Meter (in Rs) for 16 MVA, 15.75/6.9 KV class power transformer.	2					
10	Erection , testing & commissioning of 16 MVA, 15.75/6.9 KV class power transformer and also 2 Nos of NGT & NGR at Raichur Thermal station- Karnataka (FO: 3599) as per enclosed detailed scope of work Annexure V	2					