

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 SUPPLY OF 15 MVA, 11 KV AUTO TRANSFORMER

ANDREW YULE & CO. LTD. invites e-Tender under single stage two part system **(Part I: Techno-Commercial Bid and Part II: Price Bid)** for supply of 15 MVA ,11 KV Auto transformer **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, will be hosted on the above-mentioned websites only.

We request you to submit your offer for the supply of Auto transformer as per our specification as detailed below,

1. 15 MVA-11/8.58-6.6 KV Auto Transformer as per our specification Qty-1 No

DELIVERY: within 3 months from the placement of our P/Order

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

The rate quoted should be firm.

VALIDITY: Your offer should be valid for acceptance for a minimum period of 90 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.

AYCL reserves the right to accept or reject any tender.

Schedule of Tender

1.	TENDER NO.	<u>T-37/2018-19</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/66/18-19/ET/504
4.	Date of publication of e-Tender through publication MSTC/AYCL websites and Central Public Procurement Portal	25.03.2019
5.	Date of availability of NIT to the Vendors for downloading	25.03.2019
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	25.03.2019-03.30 PM
8.	Date of closing of Online e-tender for submission of Techno-Commercial Bid & Price Bid at www.mstcecommerce.com/eprochome/aycl	09.04.2019-12.00 PM
9.	Last date of submission/ uploading details of EMD & other documents at www.mstcecommerce.com/eprochome/aycl	09.04.2019-12.00 PM
10.	Date & time of opening of Part-I (Techno-Commercial Bid)	09.04.2019-12.05 PM
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

Price Sheet

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Manufacturing process

Annexure -VI

Specification& Bill of Materials

Annexure -VII

QAP

Annexure -VIII

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
Assistant Manager (Materials)
Mobile. No: 91 9788520864
Email: tamilselvan@andrewyule.com | |

Contact person (E-Commerce, MSTC Ltd):

1. Mr. Vikash Kumar Jaiswal

Regional Manager (ERO)

Mobile No: 9903042449

Email: vikash@mstcindia.co.in

2) Mr. Pritambiswas

Assistant Manager (ERO)

Mobile- 9903248755

Email: pbiswas@mstcindia.co.in

3) Mr. Mayank Jain

Assistant Manager (ERO)

Mobile- 9721277969

Email: mhjain@mstcindia.co.in

Help Desk No.: 033 22901004, will operate on all working days from 10 AM to 6 PM for online support to the vendors.

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)

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) should submit their Techno Commercial Bids, upload payment details of EMD & other documents and Price Bid through online in MSTC website www.mstcecommerce.com → e-procurement → Pu / 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.

- s. 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-37/18-19

(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. :

6. GST Registration No.

7. I. T. Permanent Account No.:

8. Financial Capacity : Year (2017-2018)

(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. Present customer Profile to be uploaded.
 4. Should have experience in design, manufacture, testing and supply of transformers including after sales service activities.
 5. The bidder shall have supplied 10 nos of oil filled transformers of assorted range & type up to 3 MVA ,33 KV class type within last 5 years (2013-14 to 2017-18)
 6. Should have minimum 2 nos of transformer of rating 3 MVA, 33 KV or above in Service for minimum 2 years. Bidders are requested to submit the Performance certificate for their highest rating of transformer.
 7. Should be ready to demonstrate the capability of design & manufacture strength by conducting type test and short circuit test as per the contractual requirement.
 8. Shall have a minimum turnover of Rs.2 crores in transformer Manufacturing in the last three financial years. (2015-16, 2016-17 &2017-18)
 9. The bidder should submit the documents as detailed below for Assessment of the supplier,
 - a) Company profile
 - b) Credentials along with details of execution of various rating of Power Transformer
 - c) Copy of type and special test certificates
 - d) List of technical competent person with specialization in related field
 - e) Balance sheet for last three years (2015-16, 2016-17 & 2017-18)
- *AYCL technical team will visit the bidder for assessment.

OFFERS RECEIVED WITHOUT ANY OF THE ABOVE WILL BE REJECTED

****Note:** Bidders who are in the AYCL empaneled list of suppliers for transformers need not submit the above documents. (Sl.no 3 to 9& Annexure II).Proof of turnover for year 2017-18 alone needs to be submitted.

GENERAL & TERMS AND CONDITIONS

- 1) EMD: Rs. 20,000.00 (Rupees Twenty thousand only), should be paid by way of RTGS/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) 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	ALLAHBAD 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 SUPPLY OF 15 MVA, 11 KV, AUTO
TRANSFORMER**

(To be filled online in mstc portal).

SL NO	TERMS & CONDITIONS	VENDOR RESPONSE
1	<p>REQUIREMENT Tender offers are invited for supply of 15 MVA, 11 KV, Three phase Auto transformer as detailed below.</p> <p>1. 15 MVA -11/8.58-6.6 KV Auto Transformer as per our specification Qty-1 No</p>	AGREE
2	<p>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.</p>	AGREE
3	<p>Security Deposit–</p> <p>a) The EMD amount of the successful Bidder will be retained as security deposit towards the execution of the contract and the same will be released after completion of contract.</p> <p>b) If the bidder is exempted from paying EMD vide clause no 1 of Annexure III then on being awarded the contract ,</p> <p>1) The bidder should execute the bank guarantee /DD in favor of Andrew Yule & Co .Ltd for Rs.20,000/=.</p> <p>2) For bidders already enlisted with AYCL- Chennai Operation, having outstanding amount more than the Security deposit amount then it will be adjusted towards Security Deposit.</p>	AGREE
4	<p>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 to.</p>	AGREE
5	<p>RIGHTS OF THE COMPANY Bidders who have quote other payment terms & condition having financial implication will be loaded as per Andrew Yule norms.</p> <p>The company reserves the right to accept any tender irrespective of whether it is lowest or otherwise or to reject any or all tenders without assigning any reason thereof. Affordability of the rates is also a criterion in finalizing the offer.</p>	AGREE
6	<p>FORCE MAJEURE In case of strike, accident, natural calamity, acts of god and other unforeseen contingencies causing stoppage of production at Andrew Yule Factory, Andrew Yule reserves the right to cancel and/or modify this contract without liability for compensation and/or claim of any description.</p>	AGREE
7	<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</p>	AGREE

	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.	
8	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
9	Liquidated damage – If the delivery is delayed beyond the date of scheduled date of dispatch in the purchase order, penalty will be levied @ 0.5% per week subject to a maximum of 10%	AGREE
10	If there is any variation in the techno commercial terms as entered/agreed in the online bid and uploaded documents, then the details entered/agreed in the online bid will be the final.	AGREE
11	Performance Bank Guarantee: As a guarantee towards performance of the transformer, the buyer will retain 10% of the invoice value for 18 months from the date of dispatch. Alternatively, the tenderer can execute a bank guarantee in the format of the buyer for 10% of invoice value (Including GST) which shall be valid throughout the guarantee period of 18 months from the date of dispatch with a claim period of another 3 months counted from the date of expiry of the guarantee period .	AGREE
12	Guarantee: The transformer should be guaranteed for 18 months from the date of dispatch or 12 months from the date of commissioning whichever is earlier. During the period if the product is found defective due to any of the above reason you shall undertake to repair the same at FREE OF COST.	AGREE
13	Non-Disclosure Agreement: The bidder on being awarded the contract has to execute a Non-disclosure Agreement as per the buyers prescribed format.	AGREE
14	Any reworks at site including leak and replacement/repair of failed components are in supplier scope.	AGREE
15	Any major failure at site, which requires the transformer to be brought back to works for rectification, will be to supplier account. This will also include taking back the transformer and installing at site after rectification. Any defect during guarantee period due to inferior materials or faulty workmanship will be rectified or replaced by the supplier at free of cost.	AGREE
16	The transformer after testing at supplier premises will be brought to AYCL Chennai works for carrying out routine test and any other tests as specified by the customer. The supplier has to consider the cost of transportation of the same including assembling and dismantling for the above tests. AYCL will provide crane facility. Any failure on the above tests due poor workmanship will be to supplier account.	AGREE

17	The transformer will be dispatched with Andrew Yule name plate only.	AGREE
18	The rate quoted should be F.O.R. Chennai (Inclusive of Packing, Forwarding and Insurance)	AGREE
18a	The credit period will start from the date of receipt of material at Andrew Yule, Perungudi, Chennai.	AGREE
19	Transformer should be manufactured as per our Production process as mentioned in Annexure VI	AGREE
20	Transformer should be supplied as per our specification & Bill of materials as mentioned in Annexure VII	AGREE
21	Transformer will be inspected & Tested as per our QAP as mentioned in Annexure VIII	AGREE
22	PAYMENT TERMS: -Direct Credit In case it is agreed fill 23 with number of days of direct	Remarks Filed
23	Please indicate the number of days of direct credit. a) 90 % within 90 days from the date of receipt of Transformer. b) 10% after guarantee period (Andrew Yule payment terms is minimum 90 days direct credit. If the offered payment terms is less than 90 days , bids will be opened at the sole discretion of Andrew Yule & price will be loaded as per Andrew Yule norms)	Remarks Filed
24	PAYMENT TERMS: - Against L/c Bidders, who wish to quote with L/c, enter AGREE IN 24 and fill 26 with number of days of credit. Bidders, who have entered agreed in 22 and filled credit days in 23 should enter Disagree in 24 and fill 26 with 0	Remarks Filed
25	If L/c payment term is selected then the L/c opening charges will be to the bidders account.	AGREE
26	Please indicate the number of days of credit against L/c a) 90 % within 90 days from the date of receipt of Transformer. b) 10% after guarantee period (Andrew Yule payment term is minimum 90 days direct credit. For bidders offering L/c payment terms, bids will be opened at the sole discretion of Andrew Yule & price will be loaded as per Andrew Yule norms)	Remarks Filed
27	If a bidder select AGREE in both 22 and 24, their payment terms will be considered as direct credit.	AGREE
28	Qualifying Requirement: Should have experience in design, manufacture, testing and supply of transformers including after sales service activities. *Proof should be uploaded. **Those who are in the AYCL empanelled list of suppliers for transformers need not submit the above documents	Remarks Field
29	The bidder shall have supplied 10 Nos. of oil filled transformers of assorted range & type up to 3 MVA, 33 KV class type within last 5 years (2013-14 to 2017-18) *Proof should be uploaded. **Those who are in the AYCL empanelled list of suppliers for transformers need not submit the above documents.	Remarks Field
30	Should have minimum 2 nos of transformer of rating 3 MVA, 33 KV or above in Service for minimum 2 years. Bidders are requested to submit the Performance certificate for their highest rating of transformer. *Proof should be uploaded.	Remarks Field

	**Those who are in the AYCL empanelled list of suppliers for transformers need not submit the above documents	
31	Should be ready to demonstrate the capability of design & manufacture strength by conducting type test and short circuit test as per the contractual requirement. **Those who are in the AYCL empanelled list of suppliers for transformers need not submit the above documents	Remarks Field
32	Shall have a minimum turnover of Rs. 2 crores in transformer Manufacturing in the last three financial years. (2015-16, 2016-17 & 2017-18) *Proof should be uploaded. **Those who are in the AYCL empanelled list of suppliers for transformers. Proof of turnover for year 2017-18 alone needs to be submitted	Remarks Field
33	The bidder should submit the documents as detailed below for Assessment of the supplier, a) Company profile b) Credentials along with details of execution of various rating of Power Transformer c) Copy of type and special test certificates d) List of technical competent person with specialization in related field e) Balance sheet for last three years (2015-16, 2016-17& 2017-18) *AYCL technical team will visit the bidder for assessment. **Those who are in the AYCL empanelled list of suppliers for transformers need not submit the above documents.(Sl.no 33 a-e). Proof of turnover for year 2017-18 alone needs to be submitted	Remarks Field
34	EMD : Rs. 20,000/= * UP LOADED * Bidders may request for exemption from submitting EMD (Refer details given in General terms & conditions)	Remarks Field
35	Tender fee Rs: 200 /= should be paid by way of RGTS/ NEFT * UP LOADED * Bidders participating in the tender should upload the UTR details towards cost of tender document.	Remarks Field
36	<u>Andrew Yule Scope of Supply</u> Name Plates	AGREE
37	Delivery: within 3 months from the placement of our P/Order	Remarks Filed

PRICE FORMAT FOR SUPPLY OF 15 MVA 11 KV AUTO TRANSFORMER

SI. NO	DESCRIPTION	Quantity	BASIC PRICE PER NO (Rs)	CGST (In %) (If not applicable please enter Zero)	SGST (In %)(If not applicable please enter Zero)	IGST (In %)(If not applicable please enter Zero)	Landed cost per No (In Rs)
		No	A	B	C	D	Landed Cost = a
1	15 MVA 11/8.58-6.6 KV Three phase Auto Transformer as per our specification(Including spares as per Annexure B)	1					


a) PRODUCTION PROCESS

1. Core assembly to be done as per the drawing/Specification.
2. Core loss to be checked after core building and compared with design specifications.
3. Coil winding to be done as per the winding sheet and winding diagram.
4. In case of tapping, binding of conductors to be done in such a way that two consecutive tapping should not come in the same bay/division.
5. Continuity check to be done for all the coils.
6. Brazing of conductor to be done with proper care, Cleaning of Carbon deposits thoroughly and insulation of Conductor to be done properly.
7. Coils to be Pre-shrunked and the heights to be compared with design specifications. Continuity check to be done for all coils before taking up for assembly.
8. Core coil assembly to be done as per the drawing and Ratio test to be carried out
9. Lead termination to be done as per the drawing.
10. Lead out points to be done with due care in such a way that no scissoring effect should come between the tap leads.
11. Send for processing
12. Refer **Process** table below:-
13. Assembling of accessories as per OGA drawing.
14. Offer for Testing/Inspection.
15. Dismantling of accessories as per drawing.
16. Painting & Wiring as per drawing.
17. Packing & Dispatch.

(Production Process up to 33KV)

FITTING	CHAMBER	REMARKS
1	Heating - 12 hrs at 115°C Vacuum Pump - 3 hrs Condensation to be recorded.	Fitting All fasteners tightening uniformly, Yoke bolt checking for 2KV, Looseness of coil- Check and Pack accordingly
2	Heating - 8 hrs at 115°C Vacuum Pump - 3 hrs Condensation to be recorded.	Fitting All fasteners tightening uniformly, Yoke bolt checking for 2KV, Looseness of coil- Check and Pack accordingly
3	Heating - 6 hrs at 115°C Vacuum Pump - 3 hrs Condensation to be recorded.	Fitting All fasteners tightening uniformly, Yoke bolt checking for 2KV, Looseness of coil- Check and Pack accordingly A . P Testing, Proceed for Tanking
4	With Tank Heating - 12 hrs at 115°C Vacuum Pump - 4 hrs Condensation to be recorded.	See for Condensation 100ml for 3 (i.e. every 1 hrs) consecutive hrs oil filling under vacuum.

TECHNICAL SPECIFICATIONS& BILL OF MATERIALS

	<u>BILL OF MATERIALS LIST</u>		RATING : 15 MVA	
			VOLTAGE: 11/8.58-6.6 KV,	
			TAPPINGS:As per Annexure A	
			Auto Imp : 1.85% (IS tol)	
			Vector Group : Ya0	
			Rev – R0	

A) Major Materials**1) Core (Make: POSCO / NLMK / KRYFS / Eqlt.)**

Core Weight : 2287.9 kgs

Core frame : 290ø /535 (cc) / 765(LL) mm

Max. Steel width : 280 mm

Min. steel width : 110 mm

No. of steps : 8 Nos

Core building type : Vertical step lap with 5 blades

Thickness of steel : 0.27mm

Guide Hole : 16ø mm hole Yoke and limbs

Core loss : 0.84W/Kg 1.5T

Core insulation Kit (2mm & 3mm PB): 1 set

Core clamps: 325Kgs [200x75mm ISMC Channel]

Core Belt:

For Yoke : Resiglass Tape (Thick = 0.3mm; Width = 40mm)

For Limb : Petstrap (Thick = 1.27mm; Width = 19mm)

2. COPPER: (Make: COPRAL / NSR / SHREECABLE/EQVT)1. Max. Specific resistance at 20°C: 0.017241Ω/cm³

2. Grade of paper : 1.2 – 2M / 5B2 – 2H1 / 5A2 – 1M3

Common Winding : 400 Kgs

Series Winding : 641 Kgs

3. Connection Copper :(Make: GIC / SHERATRON)

i) 610 Strands,0.5ø mm, 16.4/20.4ømm- 110 Kgs.

4. Insulating Materials:Base wood (Density 1.25 g/cm³): 290/520ø mm,25Thick, 3 Nos

Make: Peramalli Wallace / Western India Plywoods / Lamtuf

Winding Kit : Spacers (Edge rounded), Dovetail runner, Packing Strip

Distance piece : 1 set

Coil Assy Kit : Blocks (Edge rounded), Cylinder, Rectangular runner,
Common Block (edge rounded), Washer, Segment, Switching Connection pad. – 1 set
Total Insulation: 150 Kgs.

B) Winding details: -

SL. NO	DESCRIPTION	COMMON	SERIES			
1)	Type	Continuous Disc Winding	Multilayer(1-3) Winding	Layer 4	Layer 5	Layer 6
2)	ID	316mm	418 mm	475 mm	486 mm	499 mm
3)	OD	384mm	465 mm	485 mm	498mm	507mm
4)	Electrical Height	617 mm	617 mm	617 mm	617 mm	617 mm
	With Helix Effect Height	--	645 mm	651 mm	647 mm	657 mm
5)	No. of Parallel Cond.	2Above	2N2A	3N	2N2A	3N
6)	Size of conductor(mm)	13.0 x 2.8 (0.5) (PICC)	13 x 2.8 (0.7) (PICC)	10.5 x 3.6 (0.7) (PICC)	13.7 x 2.1 (0.7) (PICC)	12.5 x 3.0 (0.7) (PICC)
7)	Spacer	3mm – Avg. (approx.)	1. 0.5mm Inter layer insulation to be provided 2. 5mm Duct to be provided between the layer 3 & 4			
8)	Connection	AUTO				
9)	No of Sections / Layer	38 Disc	3 Layer	1 Layer	1 Layer	1 Layer
10)	Turns/Disc& Layer	4 + 11/12	22 Turns	18 Turns	21 Turns	15 Turns

C) Tank and fittings:

Tank : L = 1800mm; W = 770mm; H = 1940mm

Plate Thickness: [Bottom = 10mm; Side Wall = 6mm; Cover = 10mm;

Curb : 16mm

Conservator : 3 thick plates

Total weight : 2600 Kgs [Tank, cover, cons & under base]

Clamping Ring (MS): 320/505 ϕ , Thick -25mm, -3 Nos. = 71 Kgs

5. OCTC: 12 KV, (600x2) = 1200A, 7P, 6 deck – Always Make – 1 No

Reference Dwg. No.: AEW / 4403 - R1

6. Bushings:

A) Common, Series & Neutral (H.P)- (With Both Connecting Lug):

Rating : 12 KV/2000A
Creepage distance : 300mm 9 Nos
Make : CJI/GENESIS
Metal Part : 620mm

D) CT TERMINAL BOX

Make : Sukrut/Hindustan Engineers
Ref. Drg. No : CS-TB-SM2-S1
Execution : A 4 terminals - 1nos

7. CT:HV WTI CT: 1 No

Type : cotton tape insulation
Ratio : 587/1A
Burden : 10VA
Accuracy class : 5
Make : AU Electro /Kalpa/Kappa/Instrans /Pragathi/Amod Stampings.

8. Fittings:

A. Oil temperature indicator: 1 set

Size : 150mm
No of contacts : 2 (alarm & trip)
Capillary length : 6 mts
Model : Rectangular
Dial type indicator: 1 No
Make : Precimeasure/Perfect Control

B. Winding temperature indicator: 1 set

Size : 150mm
No of contacts : 2 (alarm & trip)
Capillary length : 6 mts
Model : Rectangular
Dial type indicator : 1 No

Make : Precimeasure /Perfect Control

The above WTI should have a below heater suitable for 1A rated WTI CT for 18Deg C gradient.

C) Buchholz relay:

Make : ATVUS/PRESS N FORGE/Yogya
Size : 80mm -1 nos
No of contacts : 2 (alarm & trip)

D) C.I Rollers (Without Bearing) 250 mm dia : 4 Nos

E) Silica gel breather (Press N forge/ Yogya)
Size : 3.3 Kgs (For main Conservator) -1No

F) Magnetic oil level gauge:
Make : Sukrut udyog/Atvus/yogya
Size : 150mm1 no
No of contacts : 1 (low level alarm)
Model : S06

G). Valves I. (MATERIAL: G.M) (As per IS 778)
(Make: Manixon /Mala/Apex/GG valves/Leader Valves)
Isolating valve : 80 mm FL/FL 2 NOS
Drain / Bot Filter valve : 50 mm FL/FL 1 NO
Top Filter valve : 50 mm FL/FL 1 NO
Sampling valve (Top &Bot) : 20 mm FL/FL 2 NOS
Main cons. drain valve : 25 mm FL/FL 1 NO

Valves III. MAERIAL: C. ITYPE: BUTTERFLY (Make: ATVUS/EAPEN JOSEPH)
Radiator valve (std. size : 80 mm - 8 NOS

9) PRESSED STEEL RADIATORS: (1.2mm Thick Sheet)
Quantity : 4 Nos.
NA :1500mm
Width :520mm
No. of sections/ Radiators : 17

10) i) PAINT - Polyurethane: (Shade 631 of IS:5) - 8 LTS/coat
ii) Touchup Paint - Polyurethane: (Shade 631 of IS:5) - 5 LTS

11) TRANSFORMER OIL – As per IS 335
Total :2800 Litre
Up to Transport Level :2170 Litre
Top-up + Radiator :630 Litre(3 Barrels)

12) **PRESSURE RELIEF VALVE:**
Make: SUKRUT UDYOG/ATVUS
Type: Model **T 6** (FOR TFR) : 1 NO
Operating pressure: **0.49** Kg/sq.cm

13)A) SUPPORT INSULATOR (EPOXY) (11 KV) : 9 NOS
B) CRIMPING LUG (Material: Copper) :24 NOS

14) WIRING CABLES :(Resistance @ 20°C)

0.68Ø, 2 Core, 2.5mm² PVC Cable:10MTS (APPROX) - (Max. resistance = 7.4Ω/km)

0.68Ø, 4 Core, 2.5mm² PVC Cable: 5MTS (APPROX) - (Max. resistance = 7.4Ω/km)

0.86Ø, 2 Core; 4.0mm² PVC Cable: 5 MTS (APPROX) - (Max. resistance = 4.6Ω/km)

15) CABLEGLAND:

SIBG 6063 :9 NOS.

SIBG 2125 : 1NOS.

SIBG 1619 : 8NOS.

16) Gaskets: 1). 6 mm Thick Sheet – 6 Nos;

2). 12mm Thick Sheet – 4 No 1 set

17) Hardware's: HDG – External; SS with Spring Washer – Internal 1 set

18) MARSHALLING BOX as per below table (Size: 500x200x600- 2.5Thick (LXBXH)) –
1 No

10	MCB	2NOS.	5A
9	SWITCH FOR HEATER (HS)	1NO.	240V , 5A
8	SWITCH FOR LAMP	1NO.	240V , 5A
7	CABLE GLANDS (SIBG TYPE)	8NOS.	3/4"
6	FARTHING TERMINAL	2NOS.	
5	HEATER WITH THERMOSTAT	1SET.	240V , 40W
4	LAMP	1NO.	240V , 40W
3	TERMINAL CONNECTOR (Stud type with double brassed nuts)	1NO.	ELMEX
2	150MM DIAL TYPE OTI WITH TWO CONTACTS	1NO.	PERFECT CONTROL /PRECIMASURE REMARKS
1	150MM DIAL TYPE WTI WITH TWO CONTACTS	1NO.	
PT.	DESCRIPTION	QTY.	

Annexure – A: Tapping Details

POSITION	INPUT (PRIMARY)		OUTPUT (SECONDARY)	
	VOLTS	SHORT TIME RATED CURRENT FOR 12min DURATION	VOLTS	SHORT TIME RATED CURRENT FOR 12min DURATION
1			8580	1067
2			7920	1067
3	11000	810	7920	1067
4			7150	1067
5			7150	1067
6			6600	1067

Annexure – B: List of Spares

1. BUSHINGS:

A) Common, Series & Neutral (H.P)- (With Both Connecting Lug) – 3 Nos

Rating : 12 KV/2000A

Creepage distance : 300mm

Make : CJI/GENESIS

Metal Part : 620mm

2. OCTC: 12 KV, (600x2) =1200A, 7P, 6 deck – Always Make – 1 No

Reference Dwg. No.: AEW / 4403 - R1

Event Catalogue						
Event Details						
Event no	Event start date & time	Event close date & time	Event View date & time	Prebid start date & time Prebid end date & time	Tender Type	Opening Type Act.Status
AYCL/Electrical Division CO/66/18-19/ET/504	25.03.2019 - 03:30 PM	09.04.2019 - 12:00 PM	25.03.2019 - 03:35 PM	No Prebid Meet	Open	Itemwise Activated
Mode E-Tender Technical Cum Price Bid			TOE Start Time 2019-04-09 12:05:00.0		TOE End Time 2019-06-30 00:00:00.0	
Tender Committee Members						
Contact Person	Designation	Department	Email	Mobile No.	Telephone	
Tamilselvan	Engineer(Material)	Electrical Division CO	tamilselvan@andrewyule.com	9788520864	24960793	
Kingsly Reuben M	Assistant	Electrical Division CO	reuben@andrewyule.com	9884446378	24960793	
Lot Details						
Sno	Lot no	Lot name	Quantity	Uom	Description of Item	
1	1	SUPPLY OF 15 MVA 11 KV AUTO TRANSFORMER	1.0	NO	15 MVA 11/8.58-6.6 KV Three phase Auto Transformer as per our specification(Including spares as per Annexure B)	
1.1 TECHNO COMMERCIAL TERMS						
1. REQUIREMENT Tender offers are invited for supply of 15 MVA, 11 KV, Three phase Auto transformer as detailed below. 1. 15 MVA -11/8.58-6.6 KV Auto Transformer as per our specification Qty-1 No Component : Agree Only						
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. Component : Agree Only						
3. Security Deposit -- a) The EMD amount of the successful Bidder will be retained as security deposit towards the execution of the contract and the same will be released after completion of contract. b) If the bidder is exempted from paying EMD vide clause no 1 of Annexure III then on being awarded the contract , 1) The bidder should execute the bank guarantee /DD in favor of Andrew Yule & Co .Ltd for Rs.20,000/=. 2) For bidders already enlisted with AYCL- Chennai Operation, having outstanding amount more than the Security deposit amount then it will be adjusted towards Security Deposit. Component : Agree Only						
4. 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 to. Component : Agree Only						
5. RIGHTS OF THE COMPANY Bidders who have quote other payment terms & condition having financial implication will be loaded as per Andrew Yule norms. The company reserves the right to accept any tender irrespective of whether it is lowest or otherwise or to reject any or all tenders without assigning any reason thereof. Affordability of the rates is also a criterion in finalizing the offer. Component : Agree Only						
6. FORCE MAJEURE In case of strike, accident, natural calamity, acts of god and other unforeseen contingencies causing stoppage of production at Andrew Yule Factory, Andrew Yule reserves the right to cancel and/or modify this contract without liability for compensation and/or claim of any description. Component : Agree Only						
7. 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. Component : Agree Only						
8. 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. Component : Agree Only						
9. Liquidated damage -- If the delivery is delayed beyond the date of scheduled date of dispatch in the purchase order, penalty will be levied @ 0.5% per week subject to a maximum of 10% Component : Agree Only						
10. If there is any variation in the techno commercial terms as entered/agreed in the online bid and uploaded documents, then the details entered/agreed in the online bid will be the final. Component : Agree Only						
11. Performance Bank Guarantee: As a guarantee towards performance of the transformer, the buyer will retain 10% of the invoice value for 18 months from the date of dispatch. Alternatively, the tenderer can execute a bank guarantee in the format of the buyer for 10% of invoice value (Including GST) which shall be valid throughout the guarantee period of 18 months from the date of dispatch with a claim period of another 3 months counted from the date of expiry of the guarantee period . Component : Agree Only						
12. Guarantee: The transformer should be guaranteed for 18 months from the date of dispatch or 12 months from the date of commissioning whichever is earlier. During the period if the product is found defective due to any of the above reason you shall undertake to repair the same at FREE OF COST. Component : Agree Only						
13. Non-Disclosure Agreement: The bidder on being awarded the contract has to execute a Non-disclosure Agreement as per the buyers prescribed format. Component : Agree Only						
14. Any reworks at site including leak and replacement/repair of failed components are in supplier scope. Component : Agree Only						
15. Any major failure at site, which requires the transformer to be brought back to works for rectification, will be to supplier account. This will also include taking back the transformer and installing at site after rectification. Any defect during guarantee period due to inferior materials or faulty workmanship will be rectified or replaced by the supplier at free of cost. Component : Agree Only						
16. The transformer after testing at supplier premises will be brought to AYCL Chennai works for carrying out routine test and any other tests as specified by the customer. The supplier has to consider the cost of transportation of the same including assembling and dismantling for the above tests. AYCL will provide crane facility. Any failure on the above tests due poor workmanship will be to supplier account. Component : Agree Only						
17. The transformer will be dispatched with Andrew Yule name plate only. Component : Agree Only						
18. The rate quoted should be F.O.R. Chennai (Inclusive of Packing, Forwarding and Insurance). 18 a) The credit period will start from the date of receipt of material at Andrew Yule, Perungudi, Chennai. Component : Agree Only						

19	Transformer should be manufactured as per our Production process as mentioned in Annexure VI Component : Agree Only
20	Transformer should be supplied as per our specification & Bill of materials as mentioned in Annexure VII Component : Agree Only
21	Transformer will be inspected & Tested as per our QAP as mentioned in Annexure VIII Component : Agree Only
22	PAYMENT TERMS: -Direct Credit In case it is agreed fill 23 with number of days of direct Component : Remarks Field
23	Please indicate the number of days of direct credit. a) 90 % within 90 days from the date of receipt of Transformer. b) 10% after guarantee period (Andrew Yule payment terms is minimum 90 days direct credit. If the offered payment terms is less than 90 days , bids will be opened at the sole discretion of Andrew Yule & price will be loaded as per Andrew Yule norms) Component : Agree Only
24	PAYMENT TERMS: - Against L/c Bidders, who wish to quote with L/c, enter AGREE IN 24 and fill 26 with number of days of credit. Bidders, who have entered agreed in 22 and filled credit days in 23 should enter Disagree in 24 and fill 26 with 0 Component : Remarks Field
25	If L/c payment term is selected then the L/c opening charges will be to the bidders account. Component : Agree Only
26	Please indicate the number of days of credit against L/c a) 90 % within 90 days from the date of receipt of Transformer. b) 10% after guarantee period (Andrew Yule payment term is minimum 90 days direct credit. For bidders offering L/c payment terms, bids will be opened at the sole discretion of Andrew Yule & price will be loaded as per Andrew Yule norms) Component : Remarks Field
27	If a bidder select AGREE in both 22 and 24, their payment terms will be considered as direct credit. Component : Agree Only
28	Qualifying Requirement: Should have experience in design, manufacture, testing and supply of transformers including after sales service activities.*Proof should be uploaded. **Those who are in the AYCL empanelled list of suppliers for transformers need not submit the above documents Component : Remarks Field
29	The bidder shall have supplied 10 Nos. of oil filled transformers of assorted range & type up to 3 MVA, 33 KV class type within last 5 years (2013-14 to 2017-18) *Proof should be uploaded. **Those who are in the AYCL empanelled list of suppliers for transformers need not submit the above documents. Component : Remarks Field
30	Should have minimum 2 nos of transformer of rating 3 MVA, 33 KV or above in Service for minimum 2 years. Bidders are requested to submit the Performance certificate for their highest rating of transformer.*Proof should be uploaded. **Those who are in the AYCL empanelled list of suppliers for transformers need not submit the above documents Component : Remarks Field
31	Should be ready to demonstrate the capability of design & manufacture strength by conducting type test and short circuit test as per the contractual requirement. **Those who are in the AYCL empanelled list of suppliers for transformers need not submit the above documents Component : Remarks Field
32	Shall have a minimum turnover of Rs. 2 crores in transformer Manufacturing in the last three financial years. (2015-16, 2016-17 & 2017-18)*Proof should be uploaded. **Those who are in the AYCL empanelled list of suppliers for transformers. Proof of turnover for year 2017-18 alone needs to be submitted Component : Remarks Field
33	The bidder should submit the documents as detailed below for Assessment of the supplier, a) Company profile b) Credentials along with details of execution of various rating of Power Transformer c) Copy of type and special test certificates d) List of technical competent person with specialization in related field e) Balance sheet for last three years (2015-16, 2016-17 & 2017-18) *AYCL technical team will visit the bidder for assessment. **Those who are in the AYCL empanelled list of suppliers for transformers need not submit the above documents.(Sl.no 33 a-e). Proof of turnover for year 2017-18 alone needs to be submitted Component : Remarks Field
34	EMD : Rs. 20,000/= * UP LOADED * Bidders may request for exemption from submitting EMD (Refer details given in General terms & conditions) Component : Remarks Field
35	Tender fee Rs: 200 /=- should be paid by way of RGTS/ NEFT * UP LOADED * Bidders participating in the tender should upload the UTR details towards cost of tender document. Component : Remarks Field
36	Andrew Yule Scope of Supply Name Plates Component : Agree Only
37	Delivery: within 3 months from the placement of our P/Order Component : Remarks Field
Formula Details	
For Lot :1 : SUPPLY OF 15 MVA 11 KV AUTO TRANSFORMER	
a) BASIC PRICE PER NO (In Rs), b) CGST (In %) (If not applicable please enter Zero), c) SGST (In %) (If not applicable please enter Zero), d) IGST (In %) (If not applicable please enter Zero)	
Formula Entered by user ==> a	