## ANDREW YULE & COMPANY LIMITED (A Government of India Enterprise) BRENTFORD UNIT, Electrical Division P-25, TRANSPORT DEPOT ROAD KOLKATA 700 088

#### TENDER DOCUMENTS FOR 315KVA DRY TYPE TRANSFORMER JOB 04/2018/026-27

ANDREW YULE & CO. LTD. invites e-Tender under single stage two part system (Part I: Techno-Commercial Bid and Part II: Price Bid) from bona fide and reputed Company/Firmfor supply, the details of which are available in Annexure-III "Scope of Work / Technical Specification" as specified in this tender document.

Tender document may be downloaded from MSTC website <u>www.mstcecommerce.com/eprochome/aycl</u>. Corrigenda or clarifications, if any, shall be hosted on the above mentioned websites only. AYCL reserves the right to accept or reject any tender.

#### Brief Description:-

#### MANUFACTURE AND SUPPLY OF315**KVA**,11/0.433 KV, DYN-11, INDOOR TYPE,CAST RESIN DRY TYPE TRANSFORMERWITH MANUAL OFF-CIRCUIT TAP CHANGER ASPER DRAWING, TECHNICAL SPECIFICATION & LATEST IS

Quantity:2 NOS.

AYCL reserves the right to distribute the quantity among successful bidders.

1.	TENDER NO.	AY/BU/PU/007/315KVA TRF/19-20/ET
		Dated :-18.04.2019
2.	MODE OF TENDER	e-Procurement System Online submission of <b>Part I</b> - <b>Techno-</b>
		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 -KO/03/19-20/ET/025
4.	Date of publication of e-Tender through publication MSTC	18.04.2019
5.	Date of availability of NIT to the Vendors for downloading	1804.2019

#### **Schedule of Tender**

6.	Earnest Money Deposit	<ul> <li>"Earnest Money Deposit" of 1% of the estimated Bidvalue.(In multiples of nearest thousand) should be paid through RTGS / NEFT</li> <li>Other document as described in Annexure I, SI. No.2</li> </ul>
7.	Last date of submission of EMD& other documents Thru' e-tender.	02.05.2019
8.	Date of Starting of e-Tender for submission of Online Techno-Commercial Bid and Price Bid at www.mstcecommerce.com/eprochome/aycl	18.04.2019
9.	Date of closing of Online e-tender for submission of Techno-Commercial Bid & Price Bid at www.mstcecommerce.com/eprochome/aycl	0205.2019– 3.00 PM
10.	Date & time of opening of Part-I (Techno- Commercial Bid)	02.05.2019– 3.30 PM
11.	Date & time of opening of Part-II (Price Bid )	To be intimated to the eligible vendor.

## List of Annexure

Important Instructions for E-proc	urement -	Annexure-I
General Information-	Annexure-II	
Online Techno commercial terms	-	Annexure-III
General Terms&Conditions -Anne	exure-IV	
Price Sheet -Annexure-V		
GST DETAILS TO BE SUBMITTED	D	Annexure –VI
TECHNICAL PARTICULARS		Annexure - VI

## TECHNO-COMMERCIAL TERMS FOR CORE LAMINATION FOR TRANSFORMER ( <u>To be filled online in MSTC portal</u>).

SL	TERMS & CONDITIONS	VENDOR
NO		RESPONSE
1.	REQUIREMENT E-Tender offers are invited for MANUFACTURE AND SUPPLY OF315 KVA TRANSFORMER 11 KV / 0.433 KV, VECTOR GROUP DYN -11 INDOOR TYPE , CAST RESIN DRY TYPE TRANSFORMER WITH MANUAL OFF-CIRCUIT TAP CHANGER AS PER OUR DRAWING,TECHNICAL SPECIFICATION AND IS 2026, IS: 11171& IEC: 76 LATEST VERSIONS. TO BE SUPPLIED STRICTLY AS PER OUR TECHNICAL SPECIFICATION ENCLOSED.	AGREE
	1)ALL FITTINGS, DIMENSIONS, TOLERANCES SHALL BE SAME AS MENTIONED IN OUR ATTACHED DRG 2) SEPARATE NEUTRAL BUSHING SHALL BE BROUGHT OUT FOR EARTHING. DRAWING ATTACHED 3) THE CORE AND WINDINGS SHALL BE CAPABLE OF WITHSTANDING SHOCKS DURING TRANSPORT, INSTALLATION AND SERVICE, ALSO DURING SHORT CIRCUIT, PROPER LOCKING OF CORE ASSEMBLY SHALL BE DONE. 4) TOTAL LOSS AT 50% LOAD = 2.0KILLOWATT& TOTAL LOSS AT 50% LOAD = 2.0KILLOWATT. REF GA DRGENCLOSED: A3-0578/18/024-25 AND A3 0579/18/024-25(HV&LV CABLE BOX) 5)BOTH THE TRANSFORMERS SHALL BE MANUFACTURED WITH IDENTICAL DESIGN In case of any dispute relating to this contract, the decision of AYCL Management shall be binding and final.	
2		AGREE
	MANUFACTURE AND SUPPLY OF315 KVATRANSFORMER, 11 KV / 0.433 KV, VECTOR GROUP DYN -11 WITH OFF CIRCUIT TAP CHANGER INDOOR TYPE, CAST RESIN DRY TYPE TRANSFORMER WITH OFF-CIRCUIT TAP CHANGER AS PEROUR DRAWING,TECHNICAL SPECIFICATION AND IS 2026, IS: 11171& IEC: 76 LATEST VERSIONS. TO BE SUPPLIED STRICTLY AS PER OUR TECHNICAL SPECIFICATION & AS PER OUR ATTACHED DRG AS REFERENCE.:A3-0578/18/024-25 AND A3 0579/18/024- 25(HV&LV CABLE BOX)	

3	SCOPE OF WORK	AGREE
	Manufacture and supply of transformer PER OUR	
	DRAWING, TECHNICAL SPECIFICATION ANDIS 2026, IS:	
	11171& IEC: 76	
	(1) The transformer shall be 315 kva, 11/0.433 kv, dyn-	
	11, indoor type transformer with manual off-circuit	
	HT tap changing handle and indicator at a	
	convenient external position, for $+$ 5% to $-$ 5% in	
	2.5% step	
	(2) The two nos of transformers shall be in conformity	
	with latest version of IS: 2026, IS: 11171& IEC: 76.	
	(3) The transformers shall be suitable for operation	
	continuously at their ratings within the service	
	conditions as mentioned elsewhere of this section.	
	(4) The temperature rise of the transformers shall	
	confirm to the requirements of temperature rise	
	specified in the latest version of the relevant standards.	
	(5) The transformers shall be designed and constructed to withstand without damage the thermal and	
	dynamic effects of external short circuit.	
	(6) The tap changing of each transformer shall be	
	capable of carrying the same over current due to	
	short circuit as the windings.	
	(7) The transformers shall be CRCA steel sheet	
	enclosed, indoor, dead front and floor mounted	
	copper double wound, cast resin Dry type Air	
	Cooled.	
	(8) Both HV and LV windings shall be made out of	
	electrolytic grade copper conductors.	
	(9) HV& LV terminals shall be brought out through	
	bushings into separate terminal boxes suitable for	
	cable termination on HV and LV side. One additional	
	LV neutral shall be brought out through a separate	
	bushing for direct connection to earth. Cable end	
	box shall be dust and vermin proof, air filled type.	
	<ul> <li>a) TYPE : INDOOR, AIR COOLED, STEP DOWN &amp; DRY TYPE.</li> </ul>	
	b) OUTPUT RATING : 315 KVA	
	c) NO. OF WINDINGS (CONNECTION) : TWO (DELTA	
	FOR HV SIDE & STAR FOR LV SIDE).	
	d) <b>NO. OF PHASES</b> : THREE ON HV SIDE THREE	
	PHASE AND NEUTRAL ON LV SIDE.	
	e) RATED FREQUENCY : 50 Hz. + 5%	
	f) RATED PRIMARY VOLTAGE: 11 KV (LINE TO	
	LINE).	
	g) RATÉD SECONDARY VOLTAGE: 433 VOLTS (NO	
	LOAD) (LINE TO LINE).	
	h) VECTOR GROUP:DYN 11.	

r		
	<ul><li>i) DUTY: CONTINUOUS.</li><li>j) RATED SHORT CIRCUIT CURRENT: AS PER</li></ul>	
	<ul> <li>j) RATED SHORT CIRCUIT CURRENT: AS PER LATEST I.I.</li> </ul>	
	k) VOLTAGE CLASS : (i) HV – 12 KV (ii)LV – 1.1 KV	
	I) STANDARD TO BE FOLLOWED: IS: 2026, IS: 1117	
	& IEC: 76.	
	m) IMPEDENCEVOLTAGE: AS PER LATEST I.S.	
	n) TECHNICAL PARTICULARS: AS PER ANNEXURE	
	– VII.	
	o) INITIAL TESTING OF THE FINISHED	
	TRANSFORMER SHALL BE DONE AT YOUR	
	WORKS FOR DIFFERENT STAGES OF PRODUCTION, IF FELT NECESSARY BY AYCL,	
	HOWEVER FINAL ACCEPTANCE SHALL BE	
	DONE AT OUR WORKS.	
	p) DELIVERY OF THE JOB TO OUR BU-KOLKATA	
	WORKS.	
	q) JOB TO BE SUPPLIED ALONG WITH ALL	
	NECESSARY ACCESSORIES.	
4	PRICE BASIS: The rate quoted by you should be Free	AGREE
	<b>Delivery</b> at AYCL factory at Kolkata (inclusive of Packing,	
-	Forwarding, and Insurance etc.)	40055
5	Validity of OFFER: Your offer should be valid for	AGREE
	acceptance for a period of 90 days from the date of opening of techno-commercial bid.	
6	Validity of PRICE: The rate quoted should be valid till	AGREE
0	complete supply of the job.	AGREE
7	DELIVERY LEAD TIME :	AGREE
	The finished TRANSFORMER should be delivered within a	_
	maximum of 30 days from the date of issue of purchase	
	order and as per the delivery schedule mentioned in our	
	purchase orders.	
8	DELIVERY DESTINATION: The price quoted above should	AGREE
	be for free delivery at our Kolkata BU works of Andrew Yule,	
	(Inclusive of P&F, Freight and Insurance etc.)	
1		
	a) ANDREW YULE & COMPANY LIMITED	
	BRENTFORD UNIT, (Electrical Division)	
	BRENTFORD UNIT, (Electrical Division) P-25, TRANSPORT DEPOT ROAD.	
	BRENTFORD UNIT, (Electrical Division) P-25, TRANSPORT DEPOT ROAD. KOLKATA 700 088	
	BRENTFORD UNIT, (Electrical Division) P-25, TRANSPORT DEPOT ROAD. KOLKATA 700 088 You have to deliver as per our requirement against orders	
9	BRENTFORD UNIT, (Electrical Division) P-25, TRANSPORT DEPOT ROAD. KOLKATA 700 088	AGREE
9	BRENTFORD UNIT, (Electrical Division) P-25, TRANSPORT DEPOT ROAD. KOLKATA 700 088 You have to deliver as per our requirement against orders placed on you as per our requirement.	AGREE
9	BRENTFORD UNIT, (Electrical Division) P-25, TRANSPORT DEPOT ROAD. KOLKATA 700 088 You have to deliver as per our requirement against orders placed on you as per our requirement PACKING: Packing should be done properly to avoid any	AGREE
9	BRENTFORD UNIT, (Electrical Division) P-25, TRANSPORT DEPOT ROAD. KOLKATA 700 088 You have to deliver as per our requirement against orders placed on you as per our requirement <b>PACKING:</b> Packing should be done properly to avoid any transit damage. Packing List to accompany every consignment. In case Radiators, the same to be supplied separately, then it should be packed in transport worthy	AGREE
	BRENTFORD UNIT, (Electrical Division) P-25, TRANSPORT DEPOT ROAD. KOLKATA 700 088 You have to deliver as per our requirement against orders placed on you as per our requirement <b>PACKING:</b> Packing should be done properly to avoid any transit damage. Packing List to accompany every consignment. In case Radiators, the same to be supplied separately, then it should be packed in transport worthy wooden packing.	
9	BRENTFORD UNIT, (Electrical Division) P-25, TRANSPORT DEPOT ROAD. KOLKATA 700 088 You have to deliver as per our requirement against orders placed on you as per our requirement <b>PACKING:</b> Packing should be done properly to avoid any transit damage. Packing List to accompany every consignment. In case Radiators, the same to be supplied separately, then it should be packed in transport worthy wooden packing. <b>TECHNICAL DOCUMENTS</b> Final as built design & drawing	AGREE
10	BRENTFORD UNIT, (Electrical Division) P-25, TRANSPORT DEPOT ROAD. KOLKATA 700 088 You have to deliver as per our requirement against orders placed on you as per our requirement <b>PACKING:</b> Packing should be done properly to avoid any transit damage. Packing List to accompany every consignment. In case Radiators, the same to be supplied separately, then it should be packed in transport worthy wooden packing. <b>TECHNICAL DOCUMENTS</b> Final as built design & drawing shall be given to AYCL for verification / Record purpose.	AGREE
	BRENTFORD UNIT, (Electrical Division) P-25, TRANSPORT DEPOT ROAD. KOLKATA 700 088 You have to deliver as per our requirement against orders placed on you as per our requirement <b>PACKING:</b> Packing should be done properly to avoid any transit damage. Packing List to accompany every consignment. In case Radiators, the same to be supplied separately, then it should be packed in transport worthy wooden packing. <b>TECHNICAL DOCUMENTS</b> Final as built design & drawing	

12	SUPPLY SPECIFICATION & QUALITY : Material should be	AGREE
	supplied as per our specification and will be inspected as	
	per Andrew Yule inspection plan	
13	<b>INSPECTION &amp; INSPECTION PROCES :</b>	AGREE
	Initial Inspection will be done at your works at different	
	stages of production, however final inspection and	
	acceptance shall be done at AYCL's factory after successful	
	completion of ROUTEIN TEST as per IS 1180.	
	Test Certificate for the supplied transformers, all bought out	
	items, insulation materials andto be submitted along with	
	your Challan / Invoice.	
	All dimensions and tolerance should be as per Andrew Yule	
	drawing & specification. In any case, no deviation beyond	
	tolerance limit as per IS norms and our specifications	
	will be acceptable to us. In case of non-acceptance, the	
	Material is to be replaced / rectified and submitted for	
4.4	acceptance by AYCL.	
14	MATERIAL CONFIRMATION: All Materials used must	AGREE
	conform to our specifications.	
15	GUARANTEE: Materials should be guaranteed for	AGREE
_	manufacturing defects, poor workmanship and	_
	defective raw materials for a minimum period of 20	
	months after delivery or 14 months after	
	commissioning, whichever is earlier. During this period	
	if the product is found to be defective due to any of the	
	above reasons, you shall undertake to repair / replace the	
	same FREE of COST. GUARANTEE BACK TO BACK.	
16	<b>RISK PURHASECLAUSE</b> : The company reserve the right	AGREE
	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	
17	observation whatsoever. SECURITY DEPOSIT - The EMD amount of the successful	AGREE
17	Bidder will be retained as security deposit towards the	AGREE
	execution of the order and the same will be released after	
	completion of order.	
18	PERFORMANCE BANK GUARANTY: Performance bank	AGREE
10	guaranty for 10% of value of the supplied materials to be	
	provided or equivalent amount to be adjusted from your	
	pending bills as performance guaranty. The same shall be	
	released/refunded after completion of guaranty period	
19	LIQUIDATED DAMAGE - If the delivery is delayed beyond	AGREE
	the date of scheduled date of dispatch in the purchase	
	order, penalty will be `levied @ 1/2% per week subject to a	

20	LEGAL CONDITION / DISPUTE REDRESSAL : 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 P-25, TRANSPORT DEPOT ROAD, KOLKATA 700 088 and 14, MAYURBHUNJ ROAD, KOLKATA 700 023 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.	AGREE
21	<ul> <li>THE RIGHTS OF THE COMPANY</li> <li>The company reserves the right to accept or reject any or all the tenders or to waive any informality, minor deviation or omission or based on their past performance without assigning any reasons whatsoever.</li> <li>Bidders who have quoted other payment terms &amp; Conditions having financial implications, price bids will be opened at the sole discretion of Andrew Yule &amp; price will be loaded as per Andrew Yule's norms. Any advance payment terms will not be accepted.</li> <li>a) The actual landed cost shall be calculated after Proper Loading in the Price as per Andrew Yule norms for important parameters having financial implications. L-1 shall be determined based on landed cost calculated by Andrew Yule.</li> <li>Offers are subjected to rejection, in case of any ambiguity or omission of any point.</li> </ul>	AGREE
22	<b>START OF CREDIT PERIOD :</b> The credit period will start from the date of receipt and acceptance of material at Andrew Yule, KOLKATA WORKS.	AGREE
23	<ul> <li>PAYMENT TERMS: - Direct Credit</li> <li>Please indicate the number of days of direct credit.</li> <li>(Andrew Yule's payment term is minimum 90 days direct credit from acceptance of material. If the offered payment term is less than 90 days, bids will be opened at the sole discretion of Andrew Yule &amp; price will be loaded as per Andrew Yule's norms.</li> <li>Any advance payment terms will not be accepted. Please write payment terms In the remarks field).</li> </ul>	REMARKS
24	<b>OTHER PAYMENT TERMS</b> : Vendors opting for other payment terms and conditions having other financial implications, bids will be opened at the sole discretion of Andrew Yule & price will be loaded as per Andrew Yule's norms. For other payment term, all related cost to be borne by the bidder.	AGREE
25	LANDED COST CALCULATION : The price calculated by MSTC is provisional. The actual	AGREE

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	landed cost shall be done after proper Loading in the Price by us for important parameters like (i) Payment Terms (ii) GST, etc. (iii) L-1 vendor will be judged after taking proper credit of GST and other terms having financial impacts. Price comparison shall be done based on Landed cost. Final Landed Cost shall be calculated by AYCL as per their Norms. <u>With introduction of GST, proper credit will be</u> <u>applicable while calculating the landed cost, and L-1</u> <u>shall be decided accordingly. Please indicate your GST</u> <u>rate, HSN code and Registration details.</u>	
26	<b>EMD</b> : An Earnest Money Deposit, of 1% OF BID VALUE to be submitted in the form of RTGS / NEFT favoring Andrew Yule & Co. Ltd. or specific request for exemption of EMD has to be submitted along with necessary supporting documents for exemption. EMD MONEY / EXEMPTION REQUEST SHOULD BE SUBMITTED ALONG WITH TECHNO COMMERCIAL BID. BIDDERS WHO WILL NOT SUBMIT EMD OR NOT MAKE PROPER APPEAL FOR EMD EXEMPTION, THEIR TENDER WILL NOT BE CONSIDERED.	AGREE
27	<b>OPTION – 1</b> :EMD – EMD amount to be paid by <b>RTGS /</b> <b>NEFT</b> within the schedule date. If agreed, please ATTACH & UPLOAD copy of UTR details.	REMARKS
28	<b>OPTION – 2</b> :EMD amount to be <b>adjusted against the</b> <b>outstanding dues</b> between the vendor &AYCL. If agreedplease ATTACH & UPLOAD copy of Exemption Request Letter and write UPLOADED in the remarks field.	REMARKS
29	<b>OPTION – 3</b> :EMD amount to be waived as our <b>turnover</b> <b>more than Rs 50crore.</b> If agreed Please mention the turnover of last year in the remarks field. Also attach & upload supporting document (Balance Sheet & Profit-Loss A/c).	REMARKS
30	<b>OPTION – 4</b> :EMD amount to be waived as per our attached <b>MSME</b> certificate. If agreed, Please mention "Exemption for MSMED in the remarks field. Also Attach & Upload the certificate as supporting document.	REMARKS
31	You have to agree to <b>any one</b> of the above options for EMD / EMD Exemption.	AGREE
32	<ul> <li>UPLOADING DOCUMENTS : Please upload the following documents and write UPLOADED in the remarks field of AGREED WITH REMARKS.</li> <li>a) EMD – Attach copy of UTR details/Exemption document</li> <li>b) Copy of valid ISO 9001 - 2008 edition certificate.</li> <li>c) GST DETAILS as per Annexure – VI</li> <li>d) Any other relevant documents as desired in our NIT</li> </ul>	AGREED WITH REMARKS
33	<b>GST RULES</b> : You have to abide by the "GST" rules and regulations .	AGREE
34	GST RATE AS %	REMARKS

35	GST REGISTRATION NUMBER	REMARKS
36	HSN DESCRIPTION & CODE	REMARKS

#### Annexure-V

#### PRICE FORMAT TRANSFORMERS:-

SI.	DESCRIPTION	UNIT	Basic
Ν		(Quantity	Price
0			(RS./Set)
		SET	(a)
1	Manufacturing and supply of <b>315 KVA</b> DRY TYPE TRANSFORMER, <b>11 /0.433 KVVECT GR DYN-11</b> along with Off Circuit Tap Changer , TO BE SUPPLIED STRICTLY AS PER OUR DRAWING & TECHNICAL SPECIFICATION & MEETING REQUIREMENTS OF IS: 2026, <b>IS 11171&amp; IEC:</b> <b>76</b> ANDAS PER OUR SPECIFICATION MENTIONED IN OUR NIT ,MATERIAL TO BE SUPPLIED AS PER DELIVERY SCHEDULE MENTIONED IN OUR PURCHASE ORDER.JOB NO 04/2018/026-027	2	

#### Note :

The price calculation as done by MSTC is provisional.

Price comparison shall be done based on Landed cost. Final Landed Cost shall be calculated by AYCL as per their Norms.

Formula for calculation of Landed Cost = Basic +Duties +Interest cost (if any) for different payment terms etc (if any) + Any other cost having financial impact Less CREDIT availed through GST

L-1 vendor will be judged after taking proper credit and other terms having financial impacts. The landed cost & L-1 shall be decided accordingly.

The above calculations are based on the prevailing rates and taxes applicable. However, in case of introduction of any other taxes or tax structure the calculation may vary accordingly.

### Annexure-I

## **Important Instructions for E-procurement**

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

You are requested to read the Terms & Conditions (Annexure- II,III,and 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. <u>Process of E-tender:</u>

A) **<u>Registration</u>**: 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 posses 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).

<u>SPECIAL NOTE</u>: THE PRICE BID AND THE COMMERCIAL BID HAS TO BE SUBMITTED ON-LINE AT <u>www.mstcecommerce.com/eprochome/aycl</u>

- Vendors are required to register themselves online with <u>www.mstcecommerce.com</u>→ 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).

- 2. Please note the following and adhere to the instructions given below related to GST
  - 1) Our provisional ID (West Bengal) : 19AACCA4245Q1Ž9
  - 2) Place of business (West Bengal)
  - 3) Address : ANDREW YULE & COMPANY LIMITED P-25, Transport Depot Road, Kolkata 700 088

#### Our Bank details for making RTGS payment.

A POINT, GROUND FLOOR. RK STREET TA – 700 016

IFSC Code	IBKL0000012
Account No	012103000000718
Account Name	ANDREW YULE & COMPANY LIMITED

Contact person (, ANDREW YULE & COMPANY LTD):

- Mr. PRADIP MAJUMDER Manager (Procurement) Ph. No: (033) 6550-0348, 9831001118 Email: <u>pradip.majumder@andrewyule.com</u> <u>Contact person (E-Commerce, MSTC Ltd):</u> 1. Mr. Pritam Biswas, Assistant Manager (ERO) Mobile- 9903248755, email- <u>pbiswas@mstcindia.co.in</u> 2) Mr. Mayank Jain, Assistant Manager (ERO) Mobile- 9721277969, email- <u>mhjain@mstcindia.co.in</u> 3) Mr. Vikash Kumar Jaiswal, Regional Manager (ERO)
  - Mobile- 9903042449, email- vikash@mstcindia.co.in

#### Landline: (033) 22901004

3.

A helpdesk service (with call recording facility) having the number (033) 2290 1004 which is operational on all working days from 10 AM to 6PM

#### 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)
- 4. Part-I: Submission of EMD& other Documents: Within specified Date & time the vendor must UPLOAD the following documents at www.mstcecommerce.com/eprochome/aycl
  - "Earnest Money Deposit" of 1% of the estimated Bidvalue.(In multiples of nearest thousand) should be paid through RTGS / NEFTfavouring Andrew Yule & Co. Ltd. Payment should be made through RTGS/NEFT and the UTR details should be uploaded. If the EMD exemption is sought the necessary documents (MSME certificate/turnover details) should be uploaded

- General information, under Annexure-II complete in all respect along with desired document.
- Acceptance of Techno-Commercial Terms, under Annexure-III along with desired information/Data under Annexure-II(A).

In case of failure to submit the EMD /EMD exemption request within the stipulated time, the Tender shall be rejected.

#### 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) who have submitted the above fees and submitted documents to Andrew Yule will be short listed by Andre Yule and those qualified bidders can only submit their Techno Commercial Bids and Price Bid through internet in MSTC website <u>www.mstcecommerce.com</u>  $\rightarrow$  e-procurement  $\rightarrow$  Psu / Govt depts.  $\rightarrow$  Login under AYCL $\rightarrow$  My Menu  $\rightarrow$  Auction Floor Manager  $\rightarrow$  live event  $\rightarrow$  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 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.
- g. During the entire e-tender process, the bidders will remain completely anonymous to one another and also to everybody else.
- **h.** The e-tender floor shall remain open from the pre-announced date & time and for as much duration as mentioned above.

- i. Techno-Commercial bid will be opened electronically on specified date and time as given in the NIT. Bidder(s) can download Technical Comparative statement.
- **j.** Price bid will be opened electronically on specified date and time given in the NIT. Bidder(s) can download Price Comparative statement.
- **k.** All entries in the tender should be entered in online Technical & Commercial Formats without any ambiguity.
- I. 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**.
- **m.** It is mandatory that all the bids are submitted with Digital Signature Certificate otherwise the same will not be accepted by the system.
- n. 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.
- **o.** 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.
- p. 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 AYCL Website only and any correspondence shall be made thru email, 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 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 <u>www.mstcecommerce.com/eprochome/aycl</u> 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/mstcof MSTC Ltd. to familiarize them with the system before bidding.

#### Annexure-II

#### ANDREW YULE & COMPANY LIMITED Brentford Unit, Electrical Division-Kolkata

#### General Information Ref. Tender No.: AY/BU/PU/007/315 KVA TRF/19-20/ET (This document should be dully filled up and attached 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

2

- 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) :

- <u>Banker's Details</u>
   (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.

2

6. <u>GST Registration DETAILS</u>.
(a) GST REGISTRATION NO.
(b) HSNCODE :
(c) GST % :

7. I. T. Permanent Account No.:

8. Financial Capacity : Year (2017-2018)

2

(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. (Electrical Division) & have the sole discretion to reject or accept my/our candidature.

2

(Signature of the Applicant) Office Stamp/Seal.

Place : Date :

List of Enclosures :

- Trade License
- A copy of Banker's Certificate

[See \*\* Note] :

#### Annexure II (A)

The following documents are to be uploaded online at www.mstcecommerce.com/eprochome/aycl

1. EMD :1% of the estimated bid value. (In multiples of nearest thousand)\*

\*Bidder may request for exemption from submitting EMD (Refer details given in SI No 1 of Annexure-IV, General terms & condition).

- 2. Vendor form as per Annexure II (See \*\*Note)
- 3. Customer List. [See \*\* Note]
- 4. Copy of valid ISO 9001 2008 edition certificate. (for ISO certified vendors)
- 5. Balance sheets and P&L Account. (2015-2016, 2016-2017& 2017-2018). [See \*\* Note]

6. Copies of purchase orders & Performance Certificate from at least three reputed transformers manufacturers for having supplied Transformer for transformers for 11/33 KV rating during the

year 2015-2016.Offers received without copies of performance certificate will be rejected.[See \*\* Note]

[\*\* Note] : Those bidders who had participated and qualified in our earlier tender or bidders in AYCL-Kolkata approved vendor list need not submit the documents.

7)All vendors / Supplier / Contractors / Service providers, please note the following

- a. For existing orders issued to you shall be governed by GST rule.
- b. You have to get your organisation registered with GST regime.
- c. You have to furnish the copy of
  - i. GST registration
  - ii. Status of registration ie Normal or Comprehensive
  - iii. Place of business.
- 8) With implementation of GST, GST number must be mentioned in all documents
  - a. Tax invoice
  - b. Supply challan
  - c. Dr & Cr notes
  - d. Supplementary / revised invoices
  - e. Receipt voucher
  - f. Refund voucher
  - g. Payment voucher
- All the goods to be despatched on or after 1<sup>st</sup> July 2017 must contain GST number in their invoices.
- 10) All the invoices raised on or after 1<sup>st</sup> July 2017, regarding supply of services to our company must contain GST number in their invoices.
- 11) All goods despatched or to be despatched, Service provided or to be provided to Andrew Yule & Company Limited on or after 1<sup>st</sup> July 2017 must contain our GST number for materials supplied or service provided in the respective invoices.
- 12) All the invoices received or issued must be in accordance with the prescribed format proposed by GST act. (Format Enclosed)

Note: In case of Non-Registered vendors / Suppliers / Contractors / service providers , declaration has to be given in the invoice regarding non-registration

## **GST DETAILS TO BE SUBMITTED**

Annexure –VI

# IN CASE THE BIDDER HAS ALREADY SUPPLIED THE FOLLOWING DATA, THEY NEED NOT PROVIDE THE SAME

SI. No.	Particulars	Your Reply	Documents
			Required
1	Andrew Yule Vendor Code (Please mention if available) :		-
2	Organisation's Name:		-
3	Constitution of your organisation		A copy of your partnership deed or MOA:
4	Location of your plants / supply points		-
5	Location of places where do you supply materials to Andrew Yule		-
6	Your GST Registration No		-
7	Contact Person's name: (From Finance/Taxation)		-
8	Contact Person's E-mail id: (From Finance/Taxation)		-
9	Contact Person's Mobile Number:		-

I	(From	l	
	Finance/Taxation)		
10	PAN Number:		-
11	Service Tax Number:		-
12	VAT number:		-
13	Central Excise Number:		-
14	Are you aware of GST implementation(Yes/No)		-
15	Are you aware that in the GST regime we will not get the credit for taxes until you file your returns and you pay your taxes. (Yes/No)		-
16	Whether there has been any delay in filing of return in the past. (Yes/No)		-
17	Whether there has been any delay in payment of taxes in the past. (Yes/No)		-
18	Whether there has been any ITC mis- match case(s) earlier. (Yes/No)		-
19	Who is the person in Andrew Yule with whom you connect on a regular basis		-
20	GST classification of products which are supplied to Andrew Yule with product details		-
21	SAC classification of services rendered to Andrew Yule		-
22	Your Migration details to GST net		The ARN No. and a copy of the Enrollment form

23	Your Bank details	-
	Bank Name	-
	IFSC	-
	Branch	-

#### Annexure-IV

## GENERAL TERMS AND CONDITIONS

- "Earnest Money Deposit" of 1% of the estimated Bidvalue.(In multiples of nearest thousand) should be paid through RTGS / NEFT Bank Guarantee from any Nationalised / Scheduled / Multinational Bank for the EMD amount can also be accepted and the BG should be as per the specimen enclosed and the original BG should reach AYCL before due date.
- For bidders already enlisted with AYCL- Electrical Division, having outstanding amount more than the EMD amount or who have already submitted theEMD against our earlier tenders or those who have security deposit with Andrew Yule may apply for adjustment of the same. The total outstanding amount should be more than or equal to the EMD Amount.

Bidders who are MSMED units may apply for exemption from furnishing EMD by making a specific request in writingand enclosing the necessary document(**MSME Certificate**) 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 writingand attaching the necessary document in support of the same i.e. **Balance Sheet**, **Profit & Loss A/c**.
- If reason for non-submission of EMD or adjustment against the outstanding balance or request for EMD exemption as per the clauses mentioned above, along with necessary supporting documents, for EMD / EMD exemption is not mentioned in Techno-commercial bid of tender, the tender will be rejected.

Bidder's organization If certified for ISO 9001 - 2008 edition. A copy of the certificate should be submitted.

#### **BG SPECIMEN**

#### (To be typed on Rs.100/- non-judicial stamp paper) BANK GUARANTEE FOR EARNEST MONEY DEPOSIT

то

BANK GUARANTEE NO....

M/S ANDREW YULE &CO.LTD ELECTRICAL DIVISION – KOLKATA OPERATION, 14, MAYURBHUNJ ROAD, KOLKATA -700 023

IN ACCORDANCE WITH YOUR TENDER for supply of **315KVA Transformer**, M/s ...... (hereinafter called the "Bidder") having its Registered Office at ......, wish to participate in the said bid for the supply **315 KVA Transformer** AS PER OUR DRAWING as an irrevocable Bank Guarantee against Earnest Money Deposit for an amount of Rs. (Rupees.....) valid up to **30.09.2019**, is required to be submitted by the bidder as a condition precedent for participating in the said bid, which amount is liable to be forfeited by the Purchaser on (1) the withdrawal or revision of the offer by the bidder within the validity period, (2) Non acceptance of the Letter of Intent / Purchase order by the Bidder when issued within the validity period, (3) failure to execute the contract as per contractual terms and condition with in the contractual delivery period and (4) on the happening of any contingencies mentioned in the bid documents.

During the validity of this Bank Guarantee: -

We, ......(Bank name) having its registered Office at ......guarantee and undertake to pay immediately on first demand by Andrew Yule & Company Ltd., Kolkata 700 023, the amount of Rs......(Rupees......) without any reservation, protest, demur and recourse. Any such demand made by the purchaser shall be conclusive and binding on the Bank irrespective of any dispute or difference raised by the Bidder.

The Guarantee shall be irrevocable and shall remain valid up to **30.09.2019**,. If any further extension is required, the same shall be extended to such required period on receiving instruction from the Bidder, on whose behalf this Guarantee is issued.

Notwithstanding anything contained herein:

\* Our liability under this Bank Guarantee shall not exceed

Rs. (Rupees.....)

\* This Bank Guarantee shall be valid up to **30.09.2019**,.

- We are liable to pay the guaranteed amount or any part thereof under this Bank Guarantee only and only if you serve upon us a written claim or a demand on or before **30.09.2019**,
- In witness whereof the Bank, through its authorized officer, has set its hand and stamp on ...... day of ...... 2019 at......

\*\*\*\*\*

-	Transformers	
.5.1	The transformer shall be 315 KVA, 11/0.433 KV, Dyn 11, indoor typetransformer with nanual off-circuit HT tap changing gear with tap changing handleand indicator at a convenient external position, for $\pm$ 5% to-5% in 2.5% step.	
2.5.2	wo (2) Nos. transformers shall be supplied. The transformers shall be generally in onformity with latest revision of IS: 2026, IS:11171& IEC : 76.	
2.5.3	The transformers shall be suitable for operation continuously at their ratings within the the suitable for operation continuously at their ratings within the section.	
2.5.4	The temperature rise of the transformers shall conform to the requirement oftemperature rise specified in latest revision of relevant standard.	
<ul><li>■ 2.5.5</li></ul>	The transformers shall be designed and constructed to withstand without damage thethermal and dynamic effects of external short circuit.	
2.5.6	Tap changing equipments of each transformer shall be capable of carrying the sameover current due to short circuit as the windings.	
2.5.7	The transformer shall be CRCA Sheet Steel enclosed, indoor, dead front and floormounted copper double wound, cast resin Dry type Air Cooled.	
2.5.8	Both HV & LV windings shall be made out of electrolytic grade copper conductors.	
2.5.9	HV & LV terminals shall be brought out through bushings into separate ter	minals
	boxessuitable for cable termination on HV side and LV side. One additional LV neutral shallbe brought out through a separate bushing for direct connection to earth. Cable end boxshall be dust and vermin proof, air filled type.	
2.5.12	Technical Particulars for Transformer	
	a) Type : Indoor, Air Cooled, Step Down and Dry type	
	a) Type       : Indoor, Air Cooled, Step Down and Dry type         b) Rated Output       : 315KVA	
	b) Rated Output : 315KVA	side
	<ul> <li>b) Rated Output : 315KVA</li> <li>c) No. of windings (Connection) : Two (Delta for HV side &amp; Star for LVside)</li> </ul>	side
	<ul> <li>b) Rated Output : 315KVA</li> <li>c) No. of windings (Connection) : Two (Delta for HV side &amp; Star for LVside)</li> <li>d) No. of Phases : Three on HV side, three phases &amp; neutral on LV</li> </ul>	side
	<ul> <li>b) Rated Output : 315KVA</li> <li>c) No. of windings (Connection) : Two (Delta for HV side &amp; Star for LVside)</li> <li>d) No. of Phases : Three on HV side, three phases &amp; neutral on LV</li> <li>e) Rated frequency : 50Hz. ± 5%</li> </ul>	side
	<ul> <li>b) Rated Output : 315KVA</li> <li>c) No. of windings (Connection) : Two (Delta for HV side &amp; Star for LVside)</li> <li>d) No. of Phases : Three on HV side, three phases &amp; neutral on LV</li> <li>e) Rated frequency : 50Hz. ± 5%</li> <li>f) Rated primary voltage</li> </ul>	side
	<ul> <li>b) Rated Output : 315KVA</li> <li>c) No. of windings (Connection) : Two (Delta for HV side &amp; Star for LVside)</li> <li>d) No. of Phases : Three on HV side, three phases &amp; neutral on LV</li> <li>e) Rated frequency : 50Hz. ± 5%</li> <li>f) Rated primary voltage <ul> <li>(Line to Line)</li> <li>: 11KV</li> </ul> </li> </ul>	side
	<ul> <li>b) Rated Output : 315KVA</li> <li>c) No. of windings (Connection) : Two (Delta for HV side &amp; Star for LVside)</li> <li>d) No. of Phases : Three on HV side, three phases &amp; neutral on LV</li> <li>e) Rated frequency : 50Hz. ± 5%</li> <li>f) Rated primary voltage <ul> <li>(Line to Line)</li> <li>: 11KV</li> </ul> </li> <li>g) Rated secondary voltage</li> </ul>	side
	<ul> <li>b) Rated Output : 315KVA</li> <li>c) No. of windings (Connection) : Two (Delta for HV side &amp; Star for LVside)</li> <li>d) No. of Phases : Three on HV side, three phases &amp; neutral on LV</li> <li>e) Rated frequency : 50Hz. ± 5%</li> <li>f) Rated primary voltage <ul> <li>(Line to Line)</li> <li>t1KV</li> </ul> </li> <li>g) Rated secondary voltage <ul> <li>(Line to Line)</li> <li>t433Volts (No load)</li> </ul> </li> </ul>	side
	<ul> <li>b) Rated Output : 315KVA</li> <li>c) No. of windings (Connection) : Two (Delta for HV side &amp; Star for LVside)</li> <li>d) No. of Phases : Three on HV side, three phases &amp; neutral on LV</li> <li>e) Rated frequency : 50Hz. ± 5%</li> <li>f) Rated primary voltage <ul> <li>(Line to Line)</li> <li>i 11KV</li> </ul> </li> <li>g) Rated secondary voltage <ul> <li>(Line to Line)</li> <li>i 433Volts (No load)</li> </ul> </li> <li>h) Vector Group</li> <li>i Dyn 11</li> </ul>	side .
	<ul> <li>b) Rated Output : 315KVA</li> <li>c) No. of windings (Connection) : Two (Delta for HV side &amp; Star for LVside)</li> <li>d) No. of Phases : Three on HV side, three phases &amp; neutral on LV</li> <li>e) Rated frequency : 50Hz. ± 5%</li> <li>f) Rated primary voltage         (Line to Line) : 11KV</li> <li>g) Rated secondary voltage         (Line to Line) : 433Volts (No load)</li> <li>h) Vector Group : Dyn 11</li> <li>i) Duty : Continuous</li> </ul>	side
	<ul> <li>b) Rated Output : 315KVA</li> <li>c) No. of windings (Connection) : Two (Delta for HV side &amp; Star for LVside)</li> <li>d) No. of Phases : Three on HV side, three phases &amp; neutral on LV</li> <li>e) Rated frequency : 50Hz. ± 5%</li> <li>f) Rated primary voltage <ul> <li>(Line to Line)</li> <li>11KV</li> </ul> </li> <li>g) Rated secondary voltage <ul> <li>(Line to Line)</li> <li>433Volts (No load)</li> </ul> </li> <li>h) Vector Group <ul> <li>Dyn 11</li> <li>Duty</li> <li>Continuous</li> <li>Rated Short Circuit Current : As per latest I.S.</li> </ul> </li> </ul>	side
	<ul> <li>b) Rated Output : 315KVA</li> <li>c) No. of windings (Connection) : Two (Delta for HV side &amp; Star for LVside)</li> <li>d) No. of Phases : Three on HV side, three phases &amp; neutral on LV</li> <li>e) Rated frequency : 50Hz. ± 5%</li> <li>f) Rated primary voltage         (Line to Line) : 11KV</li> <li>g) Rated secondary voltage         (Line to Line) : 433Volts (No load)</li> <li>h) Vector Group : Dyn 11</li> <li>i) Duty : Continuous</li> <li>j) Rated Short Circuit Current : As per latest I.S.</li> <li>k) Voltage class : a) HV - 12KV         b) LV - 1 1KV</li> </ul>	side
	<ul> <li>b) Rated Output : 315KVA</li> <li>c) No. of windings (Connection) : Two (Delta for HV side &amp; Star for LVside)</li> <li>d) No. of Phases : Three on HV side, three phases &amp; neutral on LV</li> <li>e) Rated frequency : 50Hz. ± 5%</li> <li>f) Rated primary voltage <ul> <li>(Line to Line)</li> <li>t1KV</li> </ul> </li> <li>g) Rated secondary voltage <ul> <li>(Line to Line)</li> <li>t433Volts (No load)</li> </ul> </li> <li>h) Vector Group <ul> <li>Dyn 11</li> <li>Duty</li> <li>Continuous</li> <li>Rated Short Circuit Current</li> <li>As per latest I.S.</li> </ul> </li> <li>k) Voltage class <ul> <li>a) HV - 12KV</li> <li>b) LV - 1.1KV</li> </ul> </li> <li>l) Standard to be followed <ul> <li>IS:2026, IS:11171 &amp; IEC:76</li> </ul> </li> </ul>	side
	<ul> <li>b) Rated Output : 315KVA</li> <li>c) No. of windings (Connection) : Two (Delta for HV side &amp; Star for LVside)</li> <li>d) No. of Phases : Three on HV side, three phases &amp; neutral on LV</li> <li>e) Rated frequency : 50Hz. ± 5%</li> <li>f) Rated primary voltage <ul> <li>(Line to Line)</li> <li>t1KV</li> </ul> </li> <li>g) Rated secondary voltage <ul> <li>(Line to Line)</li> <li>t433Volts (No load)</li> </ul> </li> <li>h) Vector Group <ul> <li>Dyn 11</li> <li>Duty</li> <li>Continuous</li> <li>Rated Short Circuit Current</li> <li>As per latest I.S.</li> </ul> </li> <li>k) Voltage class <ul> <li>a) HV - 12KV</li> <li>b) LV - 1.1KV</li> </ul> </li> <li>l) Standard to be followed <ul> <li>IS:2026, IS:11171 &amp; IEC:76</li> </ul> </li> </ul>	side

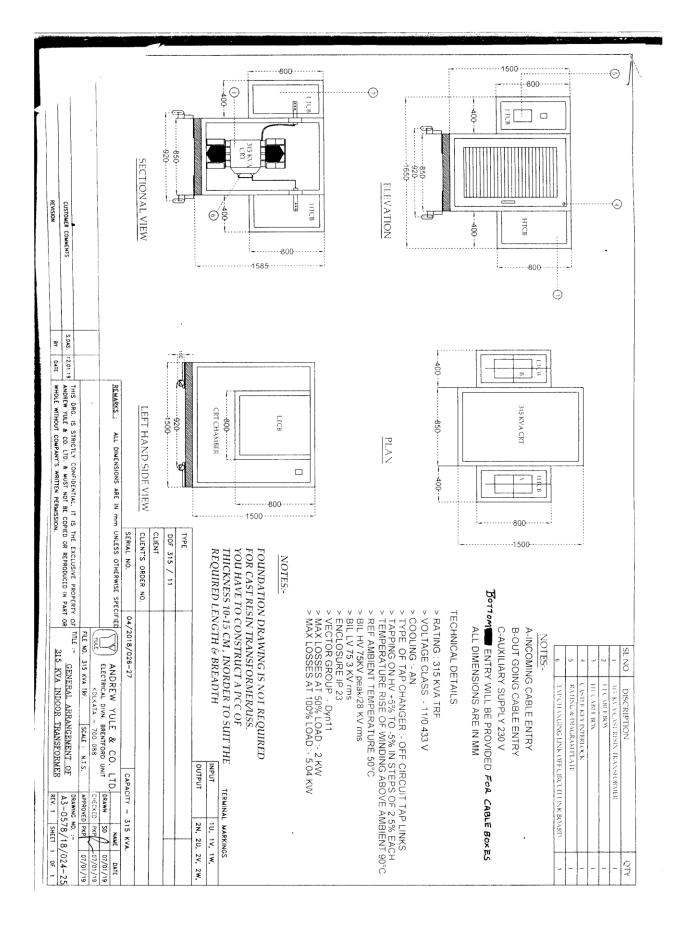
#### TECHNICAL PARTICULARS:

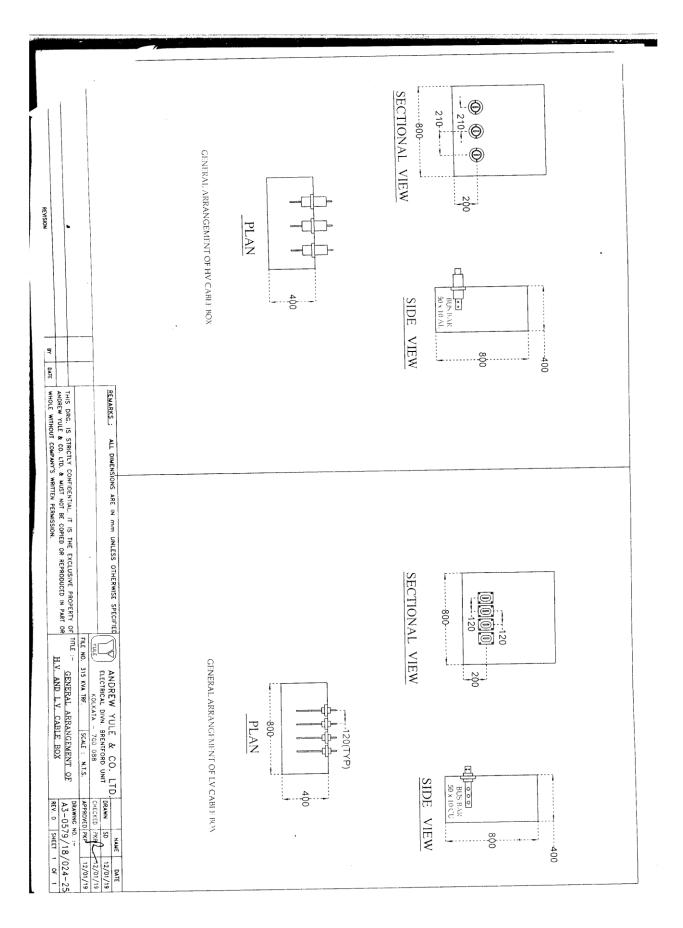
## 315 KVA, 11 / 0.433 kV Cast Resin Transformer

1	Reference Standards	IS 2026 / IS 11171
2	Type & Make of Transformer	Cast Resin Dry Type
3	Normal continuous Rating (kVA)	315
4	Voltage Ratio	11 / 0.433 kV
5	Rated Frequency	50 Hz
6	Number of Phases	3
7	Type of Cooling	AN (Air Natural)
8	Vector Group	Dyn 11
9	Connections (HV / LV)	Delta / Star
10	Winding Material	Copper
11	Type of Tap changer	Off- Circuit Tap Links
12	Tappings on HV side	+5% to -5% in steps of 2.5%
13	Class of insulation	Class F
14	Lamination	CRGO (M-4 Grade)
15	Reference Ambient Temperature	50°C
16	Temperature rise of windings above ambient	90°C
17	Terminal Arrangement (HV/ LV)	Cable Box / Cable Box
18	Type of Installation	Indoor
19	Fittings	<ul> <li>Lifting lugs</li> <li>Temperature Indicator</li> <li>Rating and Diagram Plate</li> <li>Earthing Terminals</li> <li>Enclosure - IP23</li> </ul>
20	Loss	Maximum loss at 50% load : 2 kw Maximum loss at 100 % load : 5.04 kw

Pg 2/2

Page 23 of 25





Page 25 of 25