

ANDREW YULE & COMPANY LIMITED
(A Government of India Enterprise)
ELECTRICAL DIVISION, SWITCHGEAR UNIT
14, MAYURBHANJ ROAD, KOLKATA - 700023

TENDER DOCUMENTS FOR GRID CONNECTED INVERETER WITH DATA LOGGER

TENDER DOCUMENTS FOR SUPPLY OF GRID CONNECTED INVERETER WITH DATA LOGGER FOR 10kWp SOLAR POWER PROJECT AT KALYANI WORKS, ENGINEERING DIVISION.

ANDREW YULE & CO. LTD. Invites Tender under two-part bid (Part I: Techno-Commercial Bid and Part II : PriceBid) from bonafide and reputed Company / OEM for above mentioned Job. The Technical Specification & BOQ are available in **Annexure-V** of this tender document.

Tender document may be downloaded from ANDREW YULE & CO. LTD. website http://www.andrewyule.com/tender_display.php. Corrigenda or clarifications, if any, shall be hosted on the above mentioned websites only. AYCL reserves the right to accept or reject any tender.

Sl. No.	Item Description	Qty
1	Grid Connected String Inverters of minimum capacity 10kVA for PV Power Plants of capacity 10kWp	1 No
2	Data Logger for PV Power Plants of capacity 10kWp	1 No

Price quoted should be FOR destination / Site i.e. Andrew Yule & Co. Ltd., Kalyani Works, Plot No – 16 A&B, Block – D, Kalyani, Nadia – 741235 (WB).

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Schedule of Tender

1.	TENDER NO.	AYCL/ED/Solar Project/INV/1
2.	Date of publication of Tender through publication AYCL websites	09.01.2018
3.	Date of availability of NIT to the Vendors for downloading	09.01.2018
4.	Earnest Money Deposit	“Earnest Money Deposit” of Rs.1,500/- (Rupees One Thousand Five Hundred only) may be paid by Cash Receipt/D.D. favouring Andrew Yule & Co Ltd, payable at Kolkata.
5.	Tender Fee	“Tender Fee” of Rs. 200/- (Rupees Two Hundred only) may be paid by Cash Receipt/D.D. favouring Andrew Yule & Co Ltd, payable at Kolkata.
6.	Validity of Tender	90 days from the date of opening of Tender.
7	Tender to be Submitted	Sr. Manager (Materials) Electrical Divisions – Kolkata Operations Andrew Yule & Co. Ltd. 14, Mayurbhanj Road, Kolkata – 700 023
8.	Last date of submission of Tender	24.01.2018 – 4:00 PM
9.	Date of Opening of Techno-Commercial Bid (Part – I)	25.01.2018 – 11:00 AM
9.	Date & time of opening of Price Bid (Part-II)	To be intimated to the eligible vendor separately by email.

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List of Annexure

Important Instructions	Annexure-I
General Information	Annexure-II
Techno commercial terms	Annexure-III
Pre-Qualification Requirements	Annexure-IV
Technical Specification & BOQ	Annexure-V
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GENERAL TERMS AND CONDITIONS

- EMD: Rs. 1,500/- (Rupees One Thousand and Five Hundred only) by way of Cash Receipt/ Demand Draft drawn in favour of M/S ANDREW YULE & CO.LTD Payable at KOLKATA. Bank Guarantee from any nationalised / Scheduled / Multinational Bank for the EMD amount can also be accepted.
For bidders already enlisted with AYCL- Electrical Division, 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. The total EMD should be Rs: 1,500/-
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.
- Tender Fee: Rs. 200/- (Rupees Two Hundred only) by way of Cash Receipt/ Demand Draft drawn in favour of M/S ANDREW YULE & CO.LTD Payable at KOLKATA. Bank Guarantee from any nationalised / Scheduled / Multinational Bank.
- **THE TENDER SHALL COMPRISE OF THE 2 (two) PARTS AS UNDER :**
 - PART-I: TECHNO-COMMERCIAL BID
TENDER FEE + EMD + TECHNO-COMMERCIAL TERMS AND CONDITIONS.
 - PART-II: PRICE BID
The above mentioned two envelopes will be inserted in the third envelope and shall be submitted after seal as one unit with super scribing:
TENDER DOCUMENTS FOR SUPPLY OF GRID CONNECTED INVERTER WITH DATA LOGGER
(TENDER NO - AYCL/ED/Solar Project/INV/1)
- Under no circumstances the tenderers should incorporate any changes/modifications etc., in the Tender
- The complete Tender Document shall be signed and stamped by the party on each page under Techno-Commercial Bid as the token of acceptance
- The party should quote the tender as per the prescribed format furnished in Annexure – (Price Bis)
- The completed tender will be submitted in a sealed cover at the following address on or before the last date of submission.

**Sr. Manager (Materials)
Electrical Divisions – Kolkata Operations
Andrew Yule & Co. Ltd.
14, Mayurbhanj Road,
Kolkata – 700 023**

- Validity of tender – 90 days from the date of opening of tender.
- The company reserves the right to reject any tenderer based on their past performance.
- The Techno-commercially qualified parties shall be enlisted with Andrew Yule & Co. Ltd. for Solar related future projects.

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CHECK LIST OF DOCUMENTATION FOR SUBMISSION

The following documents are required to be submitted by the party: -

1. PART-I: TECHNO-COMMERCIAL BID
 - A. Tender Fees
 - B. Earnest Money Deposit
 - C. Stamped and Signed all the pages of the Original Tender Documents as a token of unequivocal acceptance.
 - D. Documents in support of Pre-Qualification Requirement (as per Annexure – IV)
 - E. Balance sheets and P&L Account. (2014-2015, 2015-2016 & 2016-2017).
 - F. Form as per the Annexure – III and photocopy of the documents in support of the same.

2. PART-I: PRICE BID
 - A. Price of the items as per the Annexure –VI

Note: Each page of the documents should be signed and stamped.

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ANDREW YULE & COMPANY LIMITED
Electrical Division, Kolkata Operation
14, MAYURBHANJ ROAD, KOLKATA - 700023

General Information

(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. 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. :

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

6. Sales tax Registration No.

(a) Central :

(b) State / VAT :

7. GST No :

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8. I. T. Permanent Account No.
& assessed up to (latest clearance
Certificate to be attached):

9. Turnover in last three financial
years (Audited Balance Sheet and P&
L Account to be submitted):

10. Name of present customers
(Photo copy of few contracts may be
enclosed):

11. Details of EMD (DD Details) submitted:

12. Details of Tender Fee (DD Details) submitted:

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. & have the sole discretion to reject or accept my/our candidature.

(Signature of the Applicant)
Office Stamp/Seal.

Place :

Date ;

List of Enclosures:

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TECHNO-COMMERCIAL TERMS FOR GRID CONNECTED SOLAR INVERTER & DATA LOGGER

SL NO	TERMS & CONDITIONS	VENDOR RESPONSE
1	The price quoted above should be for free delivery at our Site i.e. Andrew Yule & Co. Ltd., Kalyani Works, Plot No – 16 A&B, Block – D, Kalyani, Nadia – 741235 (WB)	AGREE
2	Taxes & Duties along with rates to be indicated by the bidder.	REMARKS
3	Inspection: Inspection will be made at our Site as per relevant IS. AYCL reserves the right to inspect at supplier's premises also.	AGREE
4	Liquidated damage - If the delivery is delayed beyond the date of scheduled date of despatch in the purchase order, penalty will be levied @ 1/2% per week subject to a maximum of 5%. Please confirm acceptance.	AGREE
5	Guarantee / Warranty: As mentioned in the Technical Specification of the Grid Connected Inverter & Data Logger (Annexure – V)	AGREE
6	Payment Terms: 90% of the basic amount along with taxes & Duties will be paid within 30 days from the date of delivery at site. Balance 10% will be released after 12months of successful commissioning. However, balance 10% payment can be released against submission of equivalent amount of Bank Guarantee valid for 12 months. Any deviation in payment terms will be at sole discretion of AYCL & if the deviation is accepted, price of bidders who quote other payment terms will be loaded as per AYCL Norms. Any advance payment terms will not be accepted.	REMARKS
7	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. Please confirm acceptance.	AGREE
8	Legal Clause-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. 14 Mayurbhanj Road, Kolkata 700 023 and in the event of any dispute arising 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. Please confirm acceptance.	AGREE
9	Security Deposit - The EMD amount of the successful Bidder will be retained as security deposit towards the execution of the order and the same will be released after completion of Erection of material at Site. Please confirm acceptance.	AGREE
10	Validity of offer: 90 days from the date of opening of bid.	AGREE

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11	Note: Proper loading in the price shall be made by us for important terms e.g. “payment terms” cost of deliver to the destination, GST, having financial implication.	AGREE
12	Delivery: Material to be delivered at site within 20 days from the date of placement of order.	AGREE
13	EMD of Rs1,500/- to be paid by DD/RTGS within scheduled date. Please mention DD no. or RTGS details in the remarks.	REMARKS
14	EMD of Rs1,500/- to be adjusted against the outstanding dues between the vendor & AYCL. Please write accepted in the remarks field if agreed.	REMARKS
15	EMD of Rs 1,500/-to be waived as vendor’s turnover more than Rs. 50crore. Please mention the turnover of last year in the remarks. Also upload supporting document.	REMARKS
16	EMD of Rs 1,500/- to be waived as per vendor’s attached MSME certificate. Copy of certificate to be attached.	REMARKS
17	Bidders should submit a DD for Rs: 200 /= in favour of ANDREW YULE & CO.LTD, Payable at Kolkata towards cost of tender document or may submit in the form of cash. In case DD, please mention the DD no. otherwise write CASH.	REMARKS
18	Packing : Packing should be done properly at avoid any transit damage.	AGREE
19	In case of new vendor, they should send filled up vendor registration form as per attached format along with the Rs: 100/- in the form of DD as registration fee.	AGREE
20	Freight & Insurance will be covered by you	AGREE
21	L-1 WILL BE DETERMINED ON PACKAGE PRICE BASIS, I.E. SUMMATION OF PRICE OF ITEM 1 & ITEM 2	AGREE

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PRE-QUALIFICATION CRITERIA (PQR)

1. Financial Criteria:

- i) The bidder should be a registered company incorporated in India under the Companies Act, 1956 or 2013 or Partnership Firm registered as per Partnership Act 1932 or Statutory Body and must submit Trade license, Certificate of Incorporation / Registration Certificate, GST Registration (GSTIN), PAN Card, PF registration, Profession Tax Registration as per the applicability.
- ii) Average Annual financial turnover during the last 3 years, ending 31st March of the previous financial year, should be at least INR 1.0 Lac.
- iii) The bidder shall submit Income Tax return for the last 03 (three) Assessment years (2014-15, 2015-16, 2016-17).
- iv) The bidder should submit reports on the financial standing i.r.o. solvency of bidder company/ firm as certified by bankers, Audit report for companies registered under companies act and tax audit report for partnership firms for last 03 (three) financial years (2014-15, 2015-16, 2016-17).

2. Technical Criteria:

- i) The bidder should have successfully supplied same or above quantity of Equipment in a single tender during last 7 years ending 30.11.2017 as mentioned below.
- ii) The Equipment should have been operating successfully for minimum 01 (one) year from the Bid submission start date.
- iii) Bidder should submit, in support to the above, the list of orders along with their work order/ LOI and the commissioning certificates along with the Certificate of Successful Operation.

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**TECHNICAL SPECIFICATION & BOQ FOR GRID CONNECTED INVERTER & DATA
LOGGER**

TECHNICAL SPECIFICATION FOR GRID CONNECTED INVERTER

The power generated from PV array shall be fed to the MPPT Tracker of Three Phase Grid-Tied Solar String Inverters of nominal capacity 10 kVA.

Standards:

Sl.	Standard	Description
1	IEC/IS:61683	Photo voltaic systems – Power Conditioners – Procedure for measuring efficiency
2	IEC62093	Balance-of-system components for photovoltaic systems – Design qualification natural environments
3	IEC60068 – 2 (1,2, 14, 27, 30 & 64)	Environmental Testing of PV System – Power Conditioners and Inverters
4	IEC62116	Utility interconnected Photovoltaic Inverters Test Procedure of Islanding Prevention Measurement
5	IEC61727	Interfacing with utility grid
6	IEC61000 - 2, 3, 5	Electromagnetic Interference (EMI), and Electromagnetic Compatibility (EMC) testing of PV Inverters (as applicable)

The inverters should have CE conformity according to LVD (Low Voltage Directive) and EMC (Electro Magnetic Compatibility) Directive for safety purpose. Type test certificate issuing authorities should be any NABL / IEC Accredited Testing Laboratories or MNRE approved test centers.

Equipment meeting with other authoritative standards which ensure an equal or better quality is also acceptable.

Specification:

Desired specification of each inverter shall include but not limited to the following:

Sl.	Operating Parameter	Desired specification
1	Type	Grid connected String Inverter
2	Input (DC)	
	PV array connectivity capacity	12.5 kWp at 1000V/1500V
	MPPT Voltage range	200 – 1000 V / 1500V
	Number of MPPT Channel	2 Nos. (Minimum)
3	Output (AC)	
	Nominal AC Power output	10 kVA
	Phase	Three Phase
	Adjustable AC voltage range	The inverters shall continue generation for grid voltage variation from ± 20 % of the rated system voltage.

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	Frequency range	The inverters shall continue generation for grid frequency variation from +5% to –5 % of the rated system frequency.
	THD	The limits on voltage harmonics are 5% for THD and 3% for any single harmonic. Current harmonics for various power output conditions shall be limited as per the values provided in relevant Indian Standard.
	Switching	Transformerless
4	General Electrical data	
	Minimum Efficiency	96 % (minimum)
	Night mode consumption	Less than 10W
5	Protection	
	DC Side	Reverse-polarity, reverse current to PV array, over voltage, under voltage, over current
	AC side	Over voltage and under voltage, over current, over and under grid frequency, ground fault
	Isolation Switch	PV array Isolation switch (integrated)
	Earthing	Provision of Body Earthing
6	LCD Display Parameters	
	General	Unit Temperature
	DC	Voltage, Current, Power
	On grid connected mode	Line status, Grid voltage, Grid frequency, Export Power, Cumulative Export Energy
7	Switching Devices	IGBT / MOSFET
8	Control	Microprocessor / DSP
9	Interface (Communication protocol)	Suitable port must be provided in the inverter for on site dumping data from the memory, web based remote monitoring system.
	Web monitoring	Matched with the monitoring and data logging system installed at site. DC voltage and current at each MPPT, AC voltage, Current and Power should be at least monitored.
10	Mechanical Data	
	Protection Class	IP 65 or higher
	Cooling	Natural / forced air cooling
11	Guarantee / Warranty	5 years (Min.)

Preferred Make : Delta/Kaco/SMA/KSTAR or any reputed make with valid IEC Certificates.

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TECHNICAL SPECIFICATION FOR DATA LOGGER

Data logging system shall be an integrated part of the inverter or a separate unit and it should be combined with remote monitoring provision in order to monitor the solar PV plant continuously using any of the communication techniques viz., computer to computer communication (Ethernet), embedded system to computer (GSM) and embedded system to embedded system (GSM, GPRS). The data logging system includes MPPT wise PV array monitoring system. The data logger should have required transducer to monitor and record the required system data. The data logger shall have data storage capacity (minimum one-year data) to record all sorts of data simultaneously round the clock. All data shall be recorded chronologically. The data file should be MS Excel / XML / any readable form and should have the facility of easy downloads.

Web based Remote Monitoring system must be compatible with data logger. The other required accessories, hardware etc. Shall have to be provided as integrated part of the system to monitor the real time data (max 5 minutes' delay) through web server. The data logger shall continuously send data to the server. The system shall be monitored from any where through internet without installing any special software. For proper monitoring of all the above mention, the authentication must be provided by vendor to AYCL only through web based technology. The monitoring includes various types of reports.

The data logging system shall store the plant data which include but not limited to the following:

Sl.No.	Operating Parameter	Desired specification
1	Input data	PV Energy, individual string voltage and current.
2	Output data	Inverter Export Energy
3	Other required data	Time Active, Time Disabled, Time Idle

BILL OF QUANTITY

Sl. No.	Item Description	Qty
1	Grid Connected String Inverters of minimum capacity 10kVA for PV Power Plants of capacity 10kWp	1 No
2	Data Logger for PV Power Plants of capacity 10kWp	1 No

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PRICE FORMAT FOR SOLAR PV MODULE:

Sl. No	DESCRIPTION	UOM	Basic Price (RS./No)	CGST (%)	SGST (%)	IGST (%)
1	Grid Connected String Inverters of minimum capacity 10kVA for PV Power Plants of capacity 10kWp	Nos	(a)	(b)	(c)	(d)
2	Data Logger for PV Power Plants of capacity 10kWp	Nos	(a)	(b)	(c)	(d)

L-1 DETERMINED BASED ON ABOVE FORMULA IS PROVITIONAL.

ACTUAL L-1 WILL BE DETERMINED CONSIDERING OTHER CHARGES DUE TO CHANGE IN PAYMENT TERMS, TAX ETC.

L-1 WILL BE DETERMINED ON PACKAGE PRICE BASIS, I.E. SUMMATION OF PRICE OF ITEM 1 & ITEM 2.

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ANDREW YULE & COMPANY LIMITED
NAME OF THE UNIT.....

Application for Enlistment Form

The application form should be submitted along with the registration fee of Rs.100/- (Rupees Hundred) only by Bank Draft No..... dated..... in favour of Andrew Yule & Company Ltd.

- 1) Date of Advertisement for Registration :
- 2) Name of the Firm in Full :
- 3) Address of the Firm :
 - a)
 - b)
 - c)
 - d)
 - e)
- 4) Telephone/Telegram/Fax No./E-mail :
 - a)
 - b)
 - c)
 - d)
 - e)
- 5) Status of the Organization :
- 6) Whether Manufacturer/Contractor/Fabricator/Sub-Contractor/Stockist/Agent/Dealer :
- 7) Item for which enlistment is sought :
- 8) Banker's Name :
 - a)
 - b)
 - c)

Note: Confidential Report of financial position will be requested for by AY & Co. Ltd from the Bankers

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- 9) Trade License No. :
(Please attach a Xerox copy)
- 10) Factory License No. :
(Please attach a Xerox copy)
- 11) Whether registered as an SSI Unit. :
If yes, Registration No.
(Please attach a Xerox copy)
- 12) Sales Tax Registration No. :
a)
b)
(Please attach a Xerox copy of Registration :
Certificate)
- 13) I.T. Permanent Account No. :
- 14) Photo copies of current I.T. & Tax clearance :
Certificates are to be attached
- 15) Whether the applicant is already enlisted in this :
enterprise. If so, the details are to be furnished
stating the types of jobs executed, etc. i.e.
- (a) Description of the job (b) Year (c) Amount & :
(d) Authorized by
- 16) Whether the applicant is enlisted with any other :
Public Sector Undertaking/other reputed
manufacturers.
If so, the details are to be furnished
- 17) Financial Capacity (Year) :
a)
b)
(Copies of Balance Sheet & Profit & Loss A/c for :
last 3 years should be attached)
- 18) Technical capacity :
(i)
(ii)

Contd.....

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- 19) Manpower on Rolls :
Total Manpower in Roll:
a)
b)
c)
d)
e)
- 20) Name & Residential address of :
Partners/Directors/Proprietors, as the case may
be
- 21) Whether any Govt. Servant(s) or dismissed :
Employee(s) of Andrew Yule & Co. Ltd/any other
Govt. Undertaking is in employment under the
applicant
- 22) Whether the applicant or any of its :
Partners/Directors has been banned or removed
from the approved list of suppliers by the
Enterprise or Undertaking/any other Enterprise
or Undertaking in the past

I/We hereby certify that the particulars furnished by me/us above are true to the best of my/our knowledge and belief and misrepresentations of facts will render me/us liable to any action as may be deemed fit by Andrew Yule & Co. Ltd.....Unit/Division have the sole discretion to reject or accept my/our candidature for enlistment.

Place:

(Signature of the Applicant)
Office Stamp/Seal

Date:

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FOR OFFICE USE ONLY

- (a) Technical assessment of capabilities to perform as per Units's /Divisions's requirements.
(To be done and signed by Technical Dept.)
- (b) Financial Strength analysis to be made and signed by Finance.
- (c) Comments to Banker's Confidential Report to be made and signed by Finance (to be attached)
- (d) Purchase Dept's Recommendation (to be made by Purchase Dept.)
- (e) Tender Committee's comments for approval.

Sd/-

(Signature of the members of
Tender Committee)

TO BE ALLOTTED BY PURCHASE DEPT.

Reg.....

Folio Ref. No.....

Enlistment Register