



CENTRE FOR MATERIALS FOR ELECTRONICS TECHNOLOGY,
(A Scientific Society, Ministry of Electronics and Information
Technology, Govt. of India)
SHORANUR ROAD, M.G. KAVU, P.O. ATHANI, THRISSUR 680 581,
Kerala, India
Tel No.: 0487 – 2201156-59; Fax 0487 – 2201347
Email : cmett@cmet.gov.in URL : www.cmet.gov.in

TENDER NOTICE

Sealed Tenders (Two bid system) are invited from either the Principal/OEM itself, or by Agent/Dealer on behalf of the Principal/OEM, for the supply, installation, commissioning and demonstration of stores mentioned below, as per the tender document attached herewith

S.No	Brief Description of Stores	Tender No.	Qty	EMD Amount
1	Facility for Fabrication of Aerogel Supercapacitor Pouch Cells	TR/PUR/099/2019	1 No	1,10,000/-

Date for Pre- Bid Conference 03.02.2020 at 11.00 a.m

Place of Pre- Bid Conference C-MET, Thrissur

Last Date for Receipt of Tender 27.02.2020 (upto 15.00 hrs)

Date of Opening of Technical Bids of Tender 27.02.2020 (at 15.30 hrs)

Tender shall be prepared in the prescribed format

It is requested that the quotations along with literature, if any, may please be sent so as to reach The Administrative Officer, C-MET at the address given above, on or before the due date and time. The envelope should be superscripted with the **enquiry reference number and name of the item and date of tender opening**. Please submit your quotation **on or before 15.00 hrs on the due date**, in accordance with the terms and conditions

TENDERS NOT IN THE PRESCRIBED FORMAT AS PER ANNEXURE II(A) /II(B) WILL BE TREATED AS NON- RESPONSIVE & WILL BE REJECTED (Ref. Sl. No. 2 of Terms & conditions, Annexure –III)

All tenderers shall submit a checklist as in the attached format and submit alongwith the technical bid

Our GST No. is 32AAAAC0801E1ZS

C-MET is eligible for concessional GST/IGST rates @ 5% for Research Institutions as per Notification No. 45/2017-Central Tax (Rate) & 47/2017- Integrated Tax (Rate) dated 14.11.2017

Sd/-
Administrative Officer

Tender Document

For Competitive Bidding for the Supply, Installation and Demonstration of Following Stores/Goods/Equipment

Item No.	Tender Reference No	Brief Description of Stores/Goods/ Equipment
01	TR/PUR/099/2019	Facility for Fabrication of Aerogel Supercapacitor Pouch Cells



Centre for Materials for Electronics Technology (C-MET)
(A Scientific Society under Ministry of Electronics and Information Technology,
Govt. of India)
Shoranur Road, M.G. Kavu, Athani Post, Thrissur– 680 581
Kerala, India.

Tel No.+91-487-2201156/2201157/2201158/2201159

Fax: +91-487-2201347

Website – www.cmet.gov.in

TENDER DOCUMENT

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SECTION-I: DEFINITIONS

SECTION-I: DEFINITIONS

In this document, the following terms shall be interpreted as indicated:

- i. C-MET means any one or more of the three laboratories of Centre for Materials for Electronic Technology at Pune, Hyderabad or Thrissur.
- ii. "The Tenderer or the Bidder" means the individual or firm submitting a tender or bid for purchase of the Goods and Services by C-MET against a tender notice.
- iii. "The Purchaser(s) or Client(s)" means the organization purchasing the Goods / services (i.e., Centre for Materials for Electronics Technology)
- iv. "The Supplier" or "The Vendor" means the individual or firm supplying the Goods and Services under this Contract.
- v. "The Contract" means the agreement entered into between the Purchaser and the Supplier, as recorded in the Contract Form Signed by the parties, including all the attachments and appendices thereto and all documents incorporated by reference therein;
- vi. "The Contract Price" means the price payable to the Supplier under the Contract for the full and proper performance of its contractual obligations;
- vii. "The Goods" means all the hardware / equipment, machinery and /or other materials which the Supplier is required to supply to the Purchaser under the Contract;
- viii. "Services" means services ancillary to the supply of the Goods, such as transportation and insurance and any other incidental services, such as installation, commissioning, provision of technical assistance, training and other obligations of the Supplier covered under the Contract;
- ix. "GTC" means the General Terms and Conditions of Contract contained in this section.
- x. "STC" means the Special Terms and Conditions of Contract.
- xi. "The Client's Country" is the country named in STC.
- xii. "Day" means a working day.

SECTION-II: INVITATION FOR BIDS & INSTRUCTION TO BIDDERS (IBIB)

SECTION-II: INVITATION FOR BIDS & INSTRUCTION TO BIDDERS (IBIB)

1. Centre for Materials for Electronics Technology, Thrissur, invites sealed tenders from eligible Indian/Foreign Original Equipment Manufacturers or their authorized distributors, dealers or Indian Agent for supply, installation and commissioning of stores/goods/equipments listed in Section V of this document.
2. Interested eligible Bidders may either obtain the Tender Document on submission of a written application either from

Administrative Officer
Centre for Materials for Electronics Technology
Shoranur Road, M.G. Kavu, Athani (PO)
Thrissur - 680 581, Kerala, India.
(OR)

Download the Tender Document from our website <http://cmet.gov.in>

3. A bidder may bid for any one or more of the items/stores/goods/equipments mentioned in Section V.
4. **Two-bid system** will be adopted for this tender;

In this system, tenderer must submit their offer in two separate sealed envelopes as mentioned below:

A Envelope No. 1: Called “Techno-Commercial Bid” shall contain :

- a. Earnest Money Deposit (EMD) as given in IBIB Clause 11 or necessary exemption certificate or proof of exemption if bidder is exempted from EMD.
- b. Tender Fee : Nil
- c. Detailed Technical features of the equipment/Item quoted (*technical brochure/ datasheet of the quoted equipment/item having details of technical specification of the equipment/items may be attached*)
- d. Technical Quality and Performance of the Item quoted
- e. Technical Compliance Report for all Clauses in Technical Specifications as given in Section V.
- f. Confirmation letter that the financial bid covers all the items of the tender document.
- g. Guarantee Bond for Performance Security Deposit as given in Section VIII.
- h. Manufacturer’s Authorization Form as given in Section IX.
- i. Commercial Terms and Conditions documents sought in the Tender except Price and related financial details Form of Details about Tenderer (Sec VII) along with the following documents.

- j. A certified Xerox copy of Partnership deed / memorandum of articles and associations.
- k. Power of attorney, if required
- l. Certified copy of valid latest Income Tax clearance certificate
- m. Details of service centers, international offices, point of presence, including registration details, if any.
- n. List of service stations / Customer support stations in India, with detailed address and phone numbers and contact person through whom services will be provided (if required)
- o. Documents of previous Experience of Bidder's Eligibility, Purchase order & Completion certificate of end users.
- p. Detailed information regarding previous experience of supply and installation of the similar equipment/systems to any Government Organization and list of the clients
- q. A copy of the Agency agreement of Indian agent with the Foreign Supplier, if applicable.
- r. A copy of registration with Central Ministries or Departments by Indian agent of Foreign Supplier, if applicable.

B. Envelope No. 2 :Called "Financial Bid" shall contain:

- i) Duly filled prescribed Bid Form and Price Schedule (Section VI) with proper seal and signature of authorized person on each paper of tender
- ii) Item-wise unit cost as well as total cost for total requirement should be quoted in clean and neat manner in figure as well as words
- iii) Price bid should contain price details as per Section VI.

The Techno-commercial Bid and Financial Bid should be sealed separately and clearly indicate "**Envelope No. 1 – Techno-Commercial Bid**" and "**Envelope No.2 – Financial Bid**". The two sealed envelopes should be kept in a third larger envelope and addressed to the

**Administrative Officer,
Centre for Materials for Electronics Technology,
Shoranur Road, M.G. Kavu, Athani (PO),
Thrissur - 680 581, Kerala, India.**

Please write the tender reference number on each envelope and seal all the envelopes as per IBIB Clause 14.

If it is found that the Tenderer does not submit any of the above documents or if it is found that the price quoted is submitted in the techno- commercial bid, the tender will be rejected.

IMPORTANT DATES FOR SUBMISSION OF TENDER

Item no.	Tender Reference No	Brief Description of Stores/Goods/ Equipment	EMD (in Rupees)	Place of Delivery
01	TR/PUR/099/2019	Facility for Fabrication of Aerogel Supercapacitor Pouch Cells	Rs. 1,10,000/-	C-MET, Thrissur

- Date of Pre-Bid Conference** : 03rd Feb., 2020 11.00 a.m
- Place of pre-bid conference** : C-MET , Thrissur
- Last Date for Receipt of Tender** : 27th Feb, 2020 (upto 15.00 hrs)
- Date of Opening of Technical Bids of Tender** : 27th Feb., 2020(at 15.30 hrs)

The envelopes containing Techno-Commercial Bid will be opened at 3.30 p.m. on 27th Feb. 2020, at C-MET, Thrissur, in the presence of the nominated committee of C-MET, Thrissur and in the presence of the participant bidders or their authorized representatives. Any change in this will be duly communicated to the bidders.

5. Eligible Goods and Services

- 5.1 All goods and ancillary services/spares to be provided under the Contract shall have their origin in eligible source countries, and all expenditures made under the contract will be limited to such goods and services.
- 5.2 For purpose of this clause, “origin” means the place from where the goods are supplied, through manufacturing, processing or substantial or major assembling of components from or from which the ancillary services/spares are supplied. Goods are produced, when a commercially recognized product results that is substantially different in basic characteristics or in purpose or utility from its components.
- 5.3 The country of origin of goods and services is distinct from the nationality of the Bidder.

6. Cost of Bidding

- 6.1 The Bidder shall bear all the costs associated with the preparation and submission of its bid, and C-MET will in no case be responsible or liable for these costs, regardless of conduct or outcome of bidding process.
- 6.2 The Bidder is expected to examine all instructions, forms, terms and specifications in the bidding documents. Failure to furnish all information required by the bidding documents or submission of a bid not substantially responsive to the bidding documents in every respect will be at the Bidder’s risk and may result in rejection of its bid.

7. Clarification of Bidding Documents

A prospective Bidder requiring any clarification of the bidding documents may notify

Administrative Officer
C-MET, Shoranur Road, M.G. Kavu
AthaniPost, Thrissur – 680 581, Kerala, India
Tel No.: +91-487-2201156 / 2201157 / 2201158/2201159
Fax: +91-487-2201347
Email: – anilkumar@cmet.gov.in

in writing at the address indicated above. C-MET will respond in writing to any request for the clarification of any bidding documents which it receives 10 days prior to deadline for submission of bids.

B. PREPARATION OF BIDS

8. Language of Bid

The bid prepared by the Bidder, as well as all correspondence and documents relating to the bid exchanged by the Bidder and C-MET shall be in **English** language. Supporting documents and printed literature furnished by the Bidder may be in another language provided they are accompanied by an appropriate translation of the relevant document in the English language and in such a case, for purpose of interpretation of the Bid, the English translation shall govern.

9. Bid Form

The Bidder shall complete the Bid Form (Section VI) and the appropriate Price Schedule furnished in the documents indicating the goods to be supplied and services to be offered, a brief description of the goods and services, their country of origin, quantity and price.

10. Documents establishing Good's Eligibility and Conformity to Bidding Documents.

10.1 The Bidder shall furnish, as part of its bid, documents establishing the eligibility and conformity to the bidding documents of all goods and services, which the Bidder proposes to supply under the contract.

10.2 The documentary evidence of the goods and services eligibility shall consist of a statement in the price schedule on the country of origin of goods and services offered with a certificate of origin shall confirm at the time of shipment.

10.3 The documentary evidence of conformity of goods and services to the bidding documents may be in the form of literature, drawing and data, and shall consist of:

- a) A detailed description of the essential technical and performance characteristics of the goods;
- b) A list giving full particulars, including available sources and current prices, of spare parts, special tools, etc., necessary for the proper and continuing functioning of the goods for the period for the three years following the commencement of the use of the goods by C-MET, and

- c) An item-by-item commentary on C-MET's Technical Specification demonstrating substantial responsiveness of the goods and services to those specifications or a statement of deviations and exceptions to the provisions of the Technical Specifications.
- d) Bidder should give details of the complete details of all the configurations of the equipment offered along with Model and Modules of the product offered.
- e) Bidder should give Bill of material in technical bid without commercial details.

10.4 For purposes of the commentary, the Bidder shall note that standards for workmanship, material and equipment, and references to brand names or catalogue numbers designated by C-MET in its Technical Specifications are intended to be descriptive only and not restrictive.

11. Earnest Money Deposit (EMD)

11.1 E.M.D or Bid Security for each item in Indian Rupees as per the Table under clause: 11.1.d should be deposited by the Tenderer, in any one of the following forms, along with the Technical Bid

- a. Call Deposit Receipt duly endorsed in favour of C-MET, Thrissur or Pay Order or Demand Draft in favour of C-MET, Thrissur.
- b. Bank Guarantee from a Commercial Bank in favour of C-MET, Thrissur - irrevocable and operative till the expiry of sixty days after the validity of offer.
- c. Fixed Deposit Receipt issued by Commercial banks endorsed in favour of C-MET, Thrissur.
- d. EMD in case of a Foreign Supplier should be furnished by its Indian agent in any of the forms of IBIB Clauses 11.1.a to 11.1.c. In case the Foreign Supplier does not have an Indian agent, EMD may be paid either through Bank Guarantee issued by the foreign branches of Indian nationalized bank or Bank Draft in US\$ for equivalent amount in favour of C-MET payable at Thrissur as the case may be.

Item no.	Tender Reference No	Brief Description of Stores/Goods/ Equipment	EMD (in Rupees)
01	TR/PUR/099/2019	Facility for Fabrication of Aerogel Supercapacitor Pouch Cells	Rs. 1,10,000/-

11.2 The EMD shall be put in a separate envelope superscribing tender reference no. as such on it and put in the envelope containing Technical bid as described in IBIB Clause 4. In the absence of EMD the Bid will not be accepted.

11.3 The Earnest Money Deposit will be returned along with necessary endorsement for payment to the bidder (without interest) whose offers are not acceptable to C-MET after placing the final order.

11.4 The EMD shall also be forfeited:

11.4.1 if a Bidder withdraws its bid or increases rates during the period of Bid validity specified by the Bidder on the Bid Form ;

11.4.2 or in case of a successful Bidder, if the Bidder fails:

- a) to accept the Purchase Order as per IBIB Clause 24 or refusal to execute the tender after it has been awarded or obligations under the same are not fulfilled; or
- b) to furnish the performance security deposit in accordance with IBIB Clause 25.

11.5 EMD exemption :

The firms which are registered with DGS &D and the Micro and Small Enterprises (MSE) which are registered as MSE with any agency mentioned in the notification of the Ministry of Micro, Small and Medium Enterprises, indicated below are exempted from EMD:-

- a) District Industries Centres;
- b) Khadi and Village Industries Commission;
- c) Khadi and Village Industries Board;
- d) Coir Board;
- e) National Small Industries Corporation;
- f) Directorate of Handicraft and Handloom; and
- g) Any other body specified by the Ministry of MSME

The exemption is subjected to furnishing of relevant valid certificate for claiming exemption and shall be kept along with Techno-Commercial Bid.

11.6 In lieu of EMD , the Bidder may submit a Bid Security on a Stamp paper of value Rs.500 in the prescribed format(attached format).

12. Period of Validity Bids

Bids shall be valid for 90 days after the date of bid opening prescribed by C-MET. A Bid valid for a shorter period shall be rejected by C-MET as non-responsive.

12.1 In exceptional circumstances, C-MET may solicit the Bidder's consent to extend the period of validity of the Bid. The request and the responses thereto shall be made in writing. The Bid Security period, shall also be suitably extended. A Bidder may refuse the request by forfeiting its EMD. A Bidder granting the request will not be permitted to modify its bid.

12.2 Bid evaluation will be based on the bid prices without taking into consideration the above corrections.

13. Format and Signing of Bid

13.1 Both the Bids envelopes and their contents shall be typed or written in indelible ink and shall be signed by the Bidder or a person or persons duly authorized to bind the Bidder to the Contract. Written power-of-attorney accompanying the Bid shall support the latter authorization.

The person or persons signing the Bid shall initial all pages of the Bid, except for un-amended printed literature.

- 13.2 Any interlineations, corrections, erasures or overwriting shall be valid only if the person or persons signing the Bid sign them.

C. SUBMISSION OF BIDS

14. Sealing and Marking of Bids

14.1 The Bidders shall seal the two envelopes in separate inner envelopes, duly marking the envelopes as Techno-Commercial Bid and Financial Bid. Tender Reference No. and name and address of Bidder should be marked on each of the bid envelopes. These two envelopes should be placed inside an outer envelope. The outer envelope shall be sealed and indicate Tender Reference No. and name and the name and address of the bidder.

14.2 The inner and outer envelopes shall be addressed to the

**Administrative Officer
C-MET, Shoranur Road, M.G. Kavu
AthaniPost, Thrissur – 680 581, Kerala, India**

14.3 The inner envelopes shall also indicate the name and address of the Bidder to be returned unopened in case it is declared “late”.

14.4 If the outer envelope is not sealed and marked as specified, C-MET will assume no responsibility for the Bid’s misplacement or premature opening.

14.5 Telex, cable, e-mail or facsimile bids will be rejected.

15. Deadline for Submission of Bids

15.1 **Bids must be received by C-MET at its address mentioned above not later than 27thFeb.2020at 15.00 hrs. at C-MET, Thrissur.** Bids may be sent through courier/speed post or dropped in the Tender Box available at C-MET, Thrissur. In the event of the specified date for the submission of Bids being declared as a holiday for C-MET, the bids will be received upto the appointed time on the next working day.

15.2 C-MET may, at its discretion, extend this deadline for submission of bids by amending the tender document, in which case all rights and obligations C-MET and Bidders will thereafter be subject to the deadline as extended.

16. Late Bids

Any bid inadvertently received by C-MET after the deadline for submission of bids prescribed by C-MET, will not be considered and returned unopened to the Bidder.

D. BID OPENING AND EVALUATION OF BIDS

17. Opening of Bids by C-MET

- 17.1 **A nominated Committee of C-MET will open Techno-Commercial Bids, in the presence of Bidder or his representative, who choose to attend, at 15.30 hrs. on 27thFeb.2020at C-MET, Thrissur.**
- 17.2 The Bidder's representative who is present shall sign an attendance register evidencing their attendance. In the event of the specified date of Bid opening being declared holiday for C-MET, the Bid shall be opened at the appointed time and location on the next working day.
- 17.3 The Bidder's names, the presence or the absence of requisite EMD and such other details as C-MET, at its discretion, may consider appropriate, will be announced at the time of opening. No Bid shall be rejected at the opening, except for late bids, which shall be returned unopened to the bidders.
- 17.4 After the rigorous evaluation of the Techno- Commercial bids by C-MET (Centre for Materials for Electronics Technology), the qualified tenderers will be short-listed.
- 17.5 No clarification at the initiative of the bidder, after the technical bids are opened shall be entertained.
- 17.6 The Financial Bids will be opened from the Short-listed Bidders only at a time and place to be intimated to the Short-listed Bidders. The bid prices, discounts and such other details as C-MET, at its discretion, may consider appropriate, will be announced at the time of opening of Financial Bids.

18. Clarification of Bids

During evaluation of bids, C-MET, at its discretion, may ask the Bidder for a clarification of its bid. The request for a clarification and the response shall be in writing and no change in prices or substance of the bid shall be sought, offered or permitted. However No post bid clarification at the initiative of the bidder; shall be entertained.

19. Preliminary Examination

- 19.1 C-MET will examine the Techno- Commercial bids to determine whether they are complete, whether any computational errors have been made, whether sureties have been furnished, whether the documents have been properly signed, and whether the bids are generally in order. Bids from dealers, without proper authorization from the manufacturer as per **Section IX**, shall be treated as non-responsive.
- 19.2 Arithmetical errors will be rectified on the following basis. If there is a discrepancy between the unit price and the total price that is obtained by multiplying the unit price and quantity, the unit price shall prevail and the total price shall be corrected. If the supplier does not accept the correction of errors, its bid will be rejected. If there is a discrepancy between words and figures, the amount in words will prevail.
- 19.3 C-MET may waive any minor formality or non-conformity in a bid, which does not constitute a material deviation, provided such a waiver

does not prejudice or affect the relative ranking of any Bidder. Prior to the detailed evaluation, C-MET will determine the substantial responsiveness of each bid to the bidding documents. For purposes of this Clause, a substantially responsive bid is one, which confirms to all the terms and conditions of the bidding documents without material deviation. Deviations from or objections or reservations to critical provisions such as those concerning EMD (IBIB Clause 11), Guarantee Bond for Performance Security Deposit (IBIB Clause 4.g), Warranty (GTC Clause 15), Applicable law (GTC Clause 22) and Taxes and duties (STC Clause 2.1 and 2.2) will be deemed to be material deviations. C-MET's determination of a bid's responsiveness is to be based on the contents of the bid itself without recourse to extrinsic evidence.

- 19.4 If a Bid is not substantially responsive, it will be rejected by C-MET and may not subsequently be made responsive by the Bidder by correction of the non-conformity.

20. Evaluation and comparison of Bids

- 20.1 C-MET will evaluate and compare the bids, which have been determined to be substantially responsive.

- 20.2 In C-MET's evaluation of a bid price, such price evaluation shall include all costs as well as duties and taxes paid or payable on components and raw material incorporated or to be incorporated in the goods, and excise duty on the finished goods, (if Payable) and price of incidental services, the following factors, in the manner and to the extent indicated in the Technical Specifications:

20.2.1 Cost of inland transportation, freight, transit insurance, and other costs within India incidental to the delivery of the goods to their final destination;

20.2.2 Delivery schedule offered in the bid;

20.2.3 Deviations in payment schedule from that specified in the General Terms and Conditions of Contract;

20.2.4 The availability in India of spare parts and after-sales services for the equipment offered in the bid;

20.2.5 While evaluating the tender C-MET, has the exclusive right to include or exclude any or all the spare parts or accessories mentioned in the tender for which the tenderer is required to quote separately

- 20.3 Delivery Schedule

C-MET requires that the goods under the Invitation for Bids shall be delivered at the time specified in the Technical Specifications. The estimated time of arrival of goods at the C-MET site should be calculated for each bid after allowing for reasonable transportation time. The supplier will have to pay a penalty to C-MET in the form and at the rate mentioned in the GTC Clause No.19.

- 20.4 Deviation in Payment Schedule.

The Special Terms and Conditions of Contract stipulates the payment schedule offered by C-MET.

20.5 Spare parts and after sales services facilities in India

The cost to C-MET of establishing the minimum services facilities and parts inventories, as outlined elsewhere in bidding documents, if quoted separately, shall be added to the bid price.

21 Contacting C-MET

21.1 Subject to IBIB Clause 18, no Bidder shall contact C-MET, Thrissur on any matter relating to its bid, from the time of the bid opening to the time of contract is awarded. If he wishes to bring additional information to the notice of C-MET, it should do so in writing. C-MET reserves its right as to whether such additional information should be considered or otherwise.

21.2 Any effort by a Bidder to influence C-MET in its decision on bid evaluation, bid comparison or contract award shall result in disqualification of the Bidder's Bid and also forfeiture of his EMD amount.

22 Purchase's Right to Accept Any Bid and to Reject Any or All Bids

C-MET reserves the right to accept or reject any bid, and to annul the bidding process and reject all bids at any time prior to award of Contracts, without thereby incurring any liability to the affected Bidder or bidders or any obligation to inform the affected Bidder or Bidders of the grounds for C-MET's action.

23 Notification of Awards

20.1 Prior to the expiration of the period of the bid validity, C-MET will notify the successful bidder in writing, to be confirmed in writing by registered letter, that his bid has been accepted unconditionally.

20.2 The notification of award will constitute the formation of the Contract at Bidder's cost.

20.3 Upon the successful Bidder's furnishing of Performance Security Deposit pursuant to IBIB Clause 25 C-MET will promptly notify each unsuccessful Bidder and will discharge its EMD or bid security; pursuant to IBIB Clause 11

24 Signing of Contract

24.1 At the same time as C-MET notifies the successful Bidder that its bid has been accepted, C-MET will send the bidder the Purchase Order, incorporating all the terms and conditions.

24.2 Within 10 days of receipt of the Purchase Order/Contract, the successful bidder shall sign and put the date in Purchase Order/contract and return it to C-MET alongwith Performance Security Deposit as per IBIB Clause 25

25 Performance Security Deposit

25.1 Within 10 days of the receipt of notification of award of purchase order /contract from C-MET, the Bidder shall furnish a Performance Security Deposit equivalent to 10% of the contract value in anyone of the forms as given below:

- 25.1.1 Fixed Deposit Receipt duly endorsed in favour of C-MET, Thrissur or Demand Draft in favour of C-MET, Thrissur, from a Commercial bank.
- 25.1.2 Bank Guarantee issued/confirmed from a Commercial Bank in India in favour of C-MET, safeguarding the purchaser's interest in all respects - irrevocable and operative for the entire period starting from acceptance of the contract ending 60 days beyond the date of completion of all contractual obligations of supplier, including warranty obligation. Bank Guarantee issued by foreign bank shall be got confirmed by a Commercial Bank in India.
- 25.2 The Performance Security Deposit is required towards fulfillment of the Purchase order / Contract obligations. This Security Deposit will be forfeited in case the successful Bidder fails to execute the Purchase Order/ Contract.
- 25.3 Failure of the successful Bidder to comply with the requirement of the IBIB Clause 26 can constitute sufficient grounds for the annulment of the award in which event C-MET may call for new bids.

26 Corrupt or Fraudulent Practices.

- 26.1 C-MET requires that the bidders/suppliers/ contractors under this tender, observe the highest standards of ethics during the procurement and execution of such contracts. In pursuance of this policy, C-MET:
 - 26.1.1 Defines for the purposes of this provision, the terms set forth as follows:
 - a) "corrupt practice" means the offering, giving, receiving or soliciting of any thing of value to influence the action of the public official in the procurement process or in contract execution; and
 - b) "fraudulent practice" means a misrepresentation of facts in order to influence a procurement process or execution of a contract to the detriment of C-MET, and includes collusive practice among bidders (prior to or after bid submission) designed to establish bid prices at artificial non-competitive levels and to deprive C-MET of the benefits of the free and open competition;
 - 26.1.2 will reject a proposal for award if it determines that the Bidder recommended for award has engaged in corrupt or fraudulent practices in competing for the contract in question;
- 26.2 C-MET will declare a firm ineligible, either indefinitely or for a stated period of time, to be awarded a contract if it at any time determines that the firm has engaged in corrupt and fraudulent practices in competing for, or in executing, a contract.

27 Interpretation of the clauses in the Tender Document / Contract Document

In case of any ambiguity in the interpretation of any of the clauses in Tender Document or the Contract Document, the interpretation of the Director General, C-MET shall be final and binding on all parties.

28 In case of any legal dispute the jurisdiction will be Thrissur only.

SECTION III: SPECIAL TERMS AND CONDITIONS (STC)

1. FOR INDIAN SUPPLIERS:

- 1.1 In case of partnership firm or Joint Hindu concern, the names and full particulars of the partners or the members if the Joint Hindu family owning the concern, the information will have to be submitted on separate sheet along with the Tender. The Tender must be signed:-
- (i) In the event of being a sole proprietary concern by the sole proprietor or by a constituted attorney duly authorized to enter into and sign agreements on his behalf including agreement to refute disputes arising under or relating to such agreement to arbitration by a power of attorney signed by the proprietor and authenticated by a Notary Public or Magistrate.
 - (ii) In the event of being a partnership firm, by all partners or by a constituted attorney duly authorized to enter into and sign on behalf of the partnership firm including agreements, to refute disputes arising under or relating to such agreements or arbitration by a power of attorney executed under the firm's common seal and authenticated by a Notary Public or a Magistrate.
 - (iii) In the event of being a Hindu Joint Family concern, by the Kartas of the Joint family

2. CUSTOMS DUTY & GST EXEMPTION

- 2.1. **CUSTOMS DUTY:** Centre for Materials for Electronics Technology (C-MET) has been granted the benefit of exemption from the payment of the Central Excise Duty and Customs Duty by the Department of Scientific and Industrial Research (DSIR), Govt. of India, vide their Notifications No.51/96- Customs dt. 23.07.1996, No. 24/2007- Customs dt. 01.03.2017, No. 43/2017 – customs dt. 30.06.17, No. 45/2017 - Central Tax (Rate) & 47/2017 – Integrated Tax (Rate) dt. 14.11.2017, No. 9/2018 – Central Tax(Rate) , No. 09/2018 –Union Territory Tax (Rate) & No. 10/2018-Integrated Tax (Rate) dt. 25.01.2018 ; and state Tax (Rate) as applicable and all notification, as amended from time to time, in respect of
- a) Scientific and technical instruments, apparatus, equipment including computers.
 - b) Accessories and spare parts of goods specified in (a) above and consumables.
 - c) Computer software, compact disks, CD ROM, Recording magnetic tapes, microfilms, micro-chips etc.
 - d) Prototypes.

Hence, the bidders should take into consideration about this facility of C-MET while quoting for the advertised scientific equipments.

- 2.2 **GST:** C-MET is eligible for concessional GST/IGST; ie GST/IGST above 5% is exempted as per Notification No. 45/2017- Central Tax (Rate) and 47/2017 (Integrated Tax (Rate) dated 14.11.2017.

3. **PAYMENT TERMS**

Payments shall be made promptly by C-MET, but in no case later than thirty (30) days, after submission of the pre-receipted invoice or bills in duplicate by the Supplier and successful installation and demonstration of the stores / goods / equipments by the supplier.

4. **FOR FOREIGN SUPPLIERS**

- 4.1 Cost of the items should be mentioned clearly in the Commercial Offer (Part-II) only. The optional and any other essential items / accessories required for the maintenance of the equipment for the next three years should also be specified in the offer separately.
- 4.2 All costs should be given in Indian rupees and/or in a convertible currency like US-\$, UK- Pounds, Japan- Yen, France- Francs or German Mark or Euro.
- 4.3 The Principal Supplier should clearly indicate the address of its Indian Agent, if any, and percentage (%) of Agency Commission payable, if any.
- 4.4 The Indian Agent should produce a copy of the Agency Agreement with the foreign principal giving the precise relationship between them and their mutual interest in business.
- 4.5 The Bidder should indicate the names of the reputed Indian organizations, CSIR Labs and other scientific and technical institutes where the Bidder has supplied similar equipment and attach satisfactory performance report of the equipment from the user organizations.
- 4.6 Details of services rendered by the Bidder as well as after-sales services offered by him should be made clear in the Bid.
- 4.7 The Tenderer's conditions printed on the tender or otherwise sent along with the tender shall not be binding on C-MET.
- 4.8 Supply means "Supply, Installation, Commissioning and satisfactory demonstration of the whole system and training". If there are any extra charges for Installation, Commissioning and training, the same should be specified in the commercial offer.
- 4.9 The address of Principal's/Manufacturer's and their Banker's details should be furnished.
- 4.10 Installation is to be arranged by the supplier free of cost, and the same is to be done within 15 days of the arrival of the equipment at site.
- 4.11 The makes / brand and name and address of the manufacturer, Country of Origin, Country of Shipment and currency in which rates are quoted are to be mentioned.
- 4.12 The payment of local currency portion shall be payable in equivalent Indian Rupees, within 30 days after the receipt of the equipment in good condition and after satisfactory installation and commissioning and demonstration.
- 4.13 Details of onsite warranty, agency that shall maintain the supplied stores/goods/equipments during warranty and undertake Annual Maintenance

Contract (AMC)/Comprehensive Service Maintenance Contract beyond warranty shall be given in the offer. In case of foreign supplier, the Indian Agent who shall maintain supplied stores/goods/equipments during warranty and provide maintenance beyond warranty shall be given in the Technical Offer.

- 4.14 The supply of spare parts is to be guaranteed at least for a period of 5 years after the supply of the equipment. GTC Clause 14 for supply of spare parts shall apply in addition to this.
- 4.15 The price of imported stores/goods/equipments shall be quoted specifying:
- (a) F.O.B. Prices in any foreign currency and/or Indian rupees equivalent and port of shipment.
 - (b) C.I.F. Prices in any foreign currency and/or Indian Rupees equivalent.
F.O.R destination - in Indian Rupees only.
The estimated cost of the freight and insurance should be specified separately and individually.
 - (c) Agency Commission payable to Indian agent, if any, included in the F.O.B. / C.I.F. price should be given separately.
 - (d) The stores/goods/equipments are required to be installed at C-MET, Thrissur and subsequent Training to be provided to C-MET's employees shall be arranged by the Seller, free of cost, at the place of consignee.

5 PAYMENT TERMS

Payment shall be made through irrevocable Letter of Credit (L.C.) in favour of the foreign supplier through C-MET's banker.

6 Shipment should be effected as far as possible through Air India.

7 FORWARDING OF SHIPPING DOCUMENTS ETC. TO THE CONSIGNEE

- 7.1 Port of Delivery shall be intimated by the C-MET.
- 7.2 Advance shipment intimation shall be sent to C-MET, by the Tenderer, as required in the purchase order.
- 7.3 After completion of the shipping arrangements by the forwarding agent, he shall promptly provide C-MET with the original Airway bill and copies of Airway bill showing air freight charges, freight sheets, invoices, and packing slips to enable C-MET to arrange for the clearance of goods from the Indian Customs.
- 7.4 The Supplier shall also provide to C-MET a set of documents containing the following : -
 - i) Commercial Invoice in triplicate
 - ii) Packing list in triplicate
 - iii) Evidence of Dispatch (A copy of non-negotiable AWB copy)
 - iv) Certificate of origin country
 - v) Manufacture's guarantee and Inspection certificate

8 INSPECTION AND WARRANTY:

- 8.1 The inspection of the consignment on receipt in India shall also be carried out before taking over by C-MET, by the ultimate consignee or his nominee.

- 8.2 In all cases, whether inspection is carried out by C-MET's Inspector or not, Manufacturer's Test Certificate shall invariably accompany the equipment.
- 8.3 Instruments / Equipments /Components and all the materials, supplied against the order must be provided with guaranty/warranty against manufacturing and functional defects as given below and the date of warranty / guarantee shall commence from the date of installation / commissioning.

Item no.	Tender Reference No	Name of the Equipment	Warranty period
01	TR/PUR/099/2019	Facility for Fabrication of Aerogel Supercapacitor Pouch Cells	One year standard warranty. AMC charges for 2 years beyond the standard warranty period may be quoted

9 Other Terms:

- 9.1 Agency Commission: Shall be payable to Indian Agent, after installation and testing of the equipment. The payment shall be made in Indian Rupees only.
- 9.2 Banking / L.C. Charges: In India on C-MET's account and abroad on Supplier's account, at actuals on opening of L.C. All charges for amendment of L.C. after its opening shall be on Supplier's account.
- 9.3 Freight, Clearing etc. : On C-MET's account, payable in Indian Rupees.
- 9.4 The supplier shall be responsible for obtaining permission for export from the govt. of the country of origin. All expenses in this regard will be borne by the supplier.

SECTION IV: GENERAL TERMS AND CONDITIONS (GTC)

1. Criteria for pre-qualification of tender and negotiations

Specifications confirming to the requirement or better than that, Past Performance, Financial Soundness, Technical Competence, Total Cost and Organizational Capability of the Tenderer to provide installation, commissioning, after sale service and spare parts supply shall be some of the crucial parameters for pre-qualification of tenderers to be called for negotiations.

2. Re-tendering

On finding inadequate response to Tender Notice or if the Prices quoted are substantially high and negotiations with the tenderers have not resulted in any positive response C-MET may accept or order re-tendering.

In case a ring is suspected, re-tendering will normally be resorted to.

3. Price escalation

Procurement will normally be based on firm prices, excepting where material costs are likely to be dependent upon statutory variation or are liable to wide fluctuations as in the case of non-ferrous metals. In such cases, to determine the escalation, documentary proof, shall be produced by the supplier.

4. Performance Security Deposit

- 4.1 The Performance Security Deposit as per IBIB Clause 25 shall be for entire period from acceptance of Contract to completion of warranty plus 60 days.
- 4.2 The proceeds of the Performance Security Deposit shall be payable to the Purchaser as compensation for any loss resulting from the Supplier's failure to complete its obligations under the Contract.
- 4.3 The Performance Security Deposit will be discharged by C-MET and returned to the Supplier not later than 60 days following the date of completion of the Supplier's performance obligations, including the warranty obligations under the contract.
- 4.4 In the event of any contract amendment, the Supplier shall, within 21 days of receipt of such amendment, furnish the amendment to the Performance Security Deposit, rendering the same valid for the duration of the Contract, as amended for further period of 60 days thereafter.

5. Country of Origin

- 5.1. All Goods and Services supplied under the Contract shall have their origin in the member countries and territories eligible.
- 5.2. For purposes of this Clause "origin" means the place where the Goods produced, or from which the Services are supplied. Goods are produced when, through manufacturing, processing or substantial and manor assembling of components, a commercially recognized new product results that is substantially different in basic characteristics or in purpose or utility from its components.

- 5.3. The country of origin of Goods and Services is distinct from the nationality of the Supplier.

6. Standards

The Goods supplied under this Contract shall conform to the standards mentioned in the Technical Specifications and when no applicable standard is mentioned; to the authoritative standard appropriate to the Goods country of origin and such standards shall be the latest issued by the concerned institution. The goods to be supplied shall be new only.

7. Patent Rights

The Supplier shall indemnify C-MET against all third-party claims of infringement of patent, trademark, Copy Right or industrial design rights arising from us of the Goods or any part thereof in India.

8. Tender Specifications

- 8.1 The specifications for the items quoted should be explicitly clear and all available technical literature, catalogues and other data in support of the specifications of the items should be furnished along with the Tender. In the event of an alternative offered by the Tenderer, full specifications, details, literature, etc., which may justify consideration of such alternative offer, need to be given.
- 8.2 It should specifically be mentioned as to whether the price quoted includes all taxes and duties. Sales tax and/or other duties and levies where legally leviable and intended to be claimed should be distinctly shown separately in the Tender. Packing, Forwarding and handling charges, etc., if any, to be quoted separately.
- 8.3 The Tenderer should provide all the information asked for in the Form for Details about the Tenderer.
- 8.4 The Tenderer has to state in detail the Electrical Power/UPS requirements, floor Space, head room, foundation needed and also to state whether Air-conditioned environment is needed to house the system and to run the tests, i.e., pre-installation facilities required for installation, may please be intimated in the Technical Bid.

9. Validity of Tender:-

The quotations should be valid, for a period of 90 days from the last date of receipt of the Tender.

10. Inspections and Tests

- 10.1 C-MET or its representative shall have the right to inspect and/or to test the Goods and services to confirm their conformity to the Contract specifications at no extra cost to C-MET. C-MET shall notify the Supplier in writing in a timely manner of the identity of any representatives retained for these purposes.
- 10.2 The inspections and tests may be conducted on the premises of the Supplier or its subcontractor(s), at point of delivery and/or at the Goods final destination. If conducted on the premises of the Supplier or its

subcontractor(s), all reasonable facilities and assistance, including access to drawings and production data shall be furnished to the inspectors at no charge to C-MET.

- 10.3 Should any inspected or tested Goods fail to conform to the specifications, C-MET may reject the goods and the Supplier shall either replace the rejected Goods or make alterations necessary to meet specification requirements free of cost to C-MET.
- 10.4 C-MET's right to inspect test and, where necessary, reject the Goods after their arrival at Project Site shall in no way be limited or waived by reason of the Goods having previously been inspected, tested and passed by C-MET or its representative prior to the Goods shipment.
- 10.5 **Nothing in GTC Clause 10 shall in any way absolve** the Supplier from any warranty or other obligations under this Contract.

11. Packing

The Supplier shall provide such packing of the Goods as is required to prevent their damage or deterioration during transit to their final destination as indicated in the Contract. The packing shall be sufficient to withstand, without limitation, rough handling during transit and exposure to extreme temperatures, salt and precipitation during transit and open storage. Packing case size and weights shall take into consideration, where appropriate, and the remoteness of the Goods final destination and the absence of heavy handling facilities at all point in transit.

12. Delivery and Documents

Delivery of the Goods and services shall be made by the Supplier in accordance with the terms specified by C-MET in the Purchase Order.

13. Insurance

Insurance shall be arranged by C-MET for the Goods supplied under the Contract in Indian Rupees against loss or damage incidental to manufacture or acquisition, transportation, storage and delivery.

14. Spare Parts

The Supplier may be required to provide any or all of the following materials, notifications, and information pertaining to spare parts manufactured or distributed by the Supplier:

- 14.1 Such spare parts as C-MET may elect to Purchase from the Supplier, providing that this election shall not absolve the Supplier of any warranty obligations under the Contract; and
- 14.2 In the event of termination of production of the spare parts:
 - i. advance notification to C-MET of the pending, termination, in sufficient time to permit C-MET to procure needed requirements; and
 - ii. Following such termination, furnishing at no cost to C-MET, the blueprints, drawings and specifications of the spare parts, if requested.
- 14.3 Supplier shall carry sufficient inventories to assure ex-stock supply of consumable spares. Other spare parts and components shall be supplied

as promptly as possible but in any case within one month of placement of order.

15. Warranty

- 15.1 The Supplier warrants that the Goods supplied under this Contract are new, unused, of the most recent or current models and those they incorporate all recent improvements in design and materials unless provided otherwise in the Contract. The Supplier further warrants that all Goods supplied under this Contract shall have no defect arising from design, materials or workmanship (except when the design and/or material is required by C-MET's Specifications) or from any act or omission of the Supplier, that may develop under normal use of the supplied Goods in the conditions prevailing in the country of final destination.
- 15.2 This warranty shall be as per mentioned in Technical Specification, including the service/maintenance/repair warranty, after the Goods or any portion thereof as the case may be, have been delivered, commissioned and accepted at the final destination indicated in the Contract.
- 15.3 C-MET shall promptly notify the Supplier in writing of any claims arising under this warranty
- 15.4 Upon receipt of such notice, the Supplier, with all reasonable speed, repair or replace the defective goods or parts thereof, free of cost at the ultimate destination. The Supplier shall take over the replaced parts/goods at the time of their replacement. No claim whatsoever shall lie on C-MET for the replaced parts/goods thereafter.
- 15.5 If the Supplier, having been notified, fails to remedy the defect(s) within a reasonable period of one month, C-MET may proceed to take such remedial action as may be necessary, at the Supplier's risk and expense and without prejudice to any other rights which C-MET may have against the Supplier under the Contract.
- 15.6 If the down time is more than eight hours, supplier shall provide temporary replacement of the defective component and remove the defect. If the downtime is more than seventy two hours then the warranty period will be extended by one month for entire contract.
- 15.7 The Bidder must indicate who will maintain equipment/instrument after warranty period (post warranty) by giving the name of Firm, address, contact person, phone no. and fax no. etc in the Technical Bid.
- 15.8 The Bidder has to quote rates for Annual Maintenance Contract (AMC) for additional 3 (three) years, in the Commercial Bid.

16. Payment

- 16.1 The methods and conditions of payment to be made to the Supplier under this Contract shall be specified in the STC.
- 16.2 The Supplier's request(s) for payment shall be made to C-MET in writing, accompanied by an invoice describing, as appropriate, the Goods delivered and the Services performed, and by documents, submitted pursuant to GTC Clause 12, and upon fulfillment of other obligations stipulated in the contract.

17. Prices

Prices payable to the Supplier as stated in the Contract shall not be changed and remains applicable during the performance of the Contract.

18. Advance payment

C-MET being an autonomous organization of Govt. of India, normally no advance payment shall be made. However, 90% payment against dispatch of documents through our bankers can be considered in the case of Indian Suppliers. The balance 10% shall be released to the Supplier within 30 days of successful delivery, installation and demonstration of stores / goods/ equipments by the Supplier.

19. Penalty Clause

Subject to GTC Clause 20, if the Supplier fails to deliver any or all of the Goods or to perform the Services within the period(s) specified in the Contract, C-MET shall, without prejudice to its other remedies under the Contract, deduct from the Contract Price, as penalty, a sum equivalent to the percentage specified in Clause-21 of the delivered price of the delayed Goods or unperformed Services for each week or part thereof of delay until actual delivery or performance, up to maximum deduction of the percentage specified therein. Once the maximum is reached, C-MET may consider termination of the Contract pursuant to IBIB Clause 25 resulting in forfeiture of the Performance Security Deposit.

20. Force Majeure

- 20.1 Notwithstanding the provisions of GTC Clause 19, the Supplier shall not be liable for forfeiture of its performance security, penalty or termination for default, if and to the extent that, its delay in performance or other failure to perform its obligations under the Contract is the result of an event of Force Majeure.
- 20.2 For purposes of this clause, "Force Majeure" means an event beyond the control of the Supplier and not involving the Supplier's fault or negligence and not foreseeable. Such events may include, but are not limited to, acts of the Purchaser either in its sovereign or contractual capacity, wars or revolutions, fires, floods, epidemics, quarantine restrictions and freight embargoes.
- 20.3 If a Force Majeure situation arises, the Supplier shall promptly notify C-MET in writing of such conditions and the cause thereof. Unless otherwise directed by C-MET in writing, the Supplier shall continue to perform its obligations under the Contract as far as it is reasonably practical, and shall seek all reasonable alternative means for performance not prevented by the Force Majeure.

21. Liquidated Damages

The applicable rate is 0.5% of contract value per week and the maximum deduction is 10% of the contract price.

22. Applicable Law

The Contract shall be interpreted in accordance with the laws of the Union of India.

23. Applicability to Other Terms and Conditions

These General Terms and Conditions shall apply to the extent that they are not superseded by provisions in other parts of the Contract.

24. Tenderers must ensure the following while submitting the Tender:-

24.1 Tenderer should state whether he is a relative of any employee of CENTRE FOR MATERIALS FOR ELECTRONICS TECHNOLOGY (C-MET) and give the following certificate in the form for details of the Tenderer (s):

“ I / We have fully understood the foregoing general terms & conditions **of tender as well as the special terms and conditions** and having accepted the same in toto and I / we have made my / our offer keeping in view those terms and conditions. I / we fully agree that once I / We have endorsed in whatsoever and whichever way my / our signatures herein below all conditions whatsoever way mentioned by me / us which may not be acceptable to you / your principals shall be deemed to be / withdrawn by me / us and am/ are fully aware that no grievances whatsoever shall be entertained by you if our tender / quotation is not accepted / finalized.”

24.2 Tenderer sending their tenders by post/courier (mail) will do so solely at their own risk and C- MET will not be responsible for any loss in transit or postal delay.

24.3 Discount offered should be mentioned clearly in the commercial bid only.

24.4 The item should be supplied with manuals and the manuals including technical drawings should be complete in all respects to operate the system without any problem. If the manuals are on chargeable basis, the same should be specified in the offer.

24.5 It should be noted by the Tenderer(s) that by entering into this contract C-MET is not precluded from entering into similar contracts with any one else of their choice at any time during the continuance of this contract.

24.6 The supplier on receipt of the Purchase order must acknowledge.

24.7 C-MET shall have the right to issue addenda to tender documents to clarify amend, modify, supplement or delete any of the conditions /clauses or items stated therein. Each addendum so issued shall form part of original invitation to the Tender.

24.8 In case the Bid is not accepted, or otherwise C-MET has elected to withdraw or cancel the invitation to the Tender for which C-MET shall, have the right to do so, at any time, the Tenderer shall not be entitled to claim any cost/charges/expenses incidental to or incurred by the Tenderer through or in connection with the submission of the offer. The Earnest Money Deposit paid by the Tenderers with the Tender will be refunded to them in due course without interest.

25 **Installation:** Bidder shall be responsible for installation / demonstration wherever applicable and for after sales service during the warranty and thereafter.

- 25.1 The equipment is to be guaranteed for trouble free performance for a minimum period of one year after installation. The defects, if any, during the guarantee period are to be rectified free of charge by arranging free replacement wherever necessary.
- 25.2 Pre installation information to be supplied 3 months before dispatch date.
- 25.3 Electrical power supply :-
220V, 50 Hz, 1 phase (or) 400 V , 50 Hz , 3 phase $\pm 10\%$
26. Quantities given in the tender specifications are approximate only and one or more of the items of the stores/goods/equipment tendered for a portion of one or more of the items of such stores/goods/equipment may be accepted and notwithstanding that the tender has not been accepted in whole, supplier shall be bound to supply to C-MET such items and such portion or portions of one or more of the items as may be accepted by C-MET.
27. The Director General, C-MET reserves the right to accept the tender in full or in part or to reject the lowest or any or all tenders without assigning any reason.
28. No Sub-contracting will be allowed for installation or maintaining system/equipment/instrument during or after warranty period.
29. The Tenderer should note that the General Terms and Conditions are in addition to the Special Terms and Conditions of Tender, which form an integral part of the General Terms and Conditions of the Tender, and any of the General Terms and Conditions of Tender may be altered by the Special Terms and Conditions of Tender.
- 30. Cancellation of order**
- C-MET reserves the right to cancel the order without any liability in case the stores/goods/equipments are not supplied within the stipulated period and for non-fulfillment of specifications.
- 31. Replacement of parts**
- If any equipment or part thereof be lost or rendered defective during transit, a fresh order will be placed on the supplier for such loss or defective equipment, in which case the supplier shall arrange for the supply of the equipment or part thereof, as the case may be, within three months of date of such order at the same price as allowed in the original order on the same general terms and conditions.
- 32. Arbitration**
- Any dispute between the parties on the purchase would be settled by arbitration. The place of arbitration proceedings shall be at the place of the consignee. Applicable laws shall be laws of Union of India.

SECTION V-Technical Specifications

Details technical specification of creation of facility for fabrication of pouch cell aerogel supercapacitor

C-MET is intended to develop pouch cell type supercapacitors of different sizes to suit the requirement of electrical & physical sizes of target devices for its specific application. Development of rectangular type aerogel supercapacitor cells and modules thereof for application in VVPAT is one of the important aspects. Therefore, it is intended to have a complete set of machine/tools that will enable C-MET to make aerogel supercapacitor of different sizes/values as per the target. Hence, following equipments/machines are essentially required for making pouch type supercapacitor cell/module using the aerogel carbon coated electrodes.

- 1) Precision electrode-cutting unit with electrode cutting die-sets of different sizes
- 2) Semiautomatic electrode stacking unit with continuous paper feeder
- 3) Ultrasonic spot-welding unit with welding die-sets of different sizes
- 4) Pouch cell case forming unit with forming die-sets of different sizes
- 5) Compact heat-sealing machine for supercapacitor pouch cell-top & cell-side sealing
- 6) Semi-automatic machine for electrolyte diffusion under vacuum
- 7) Semiautomatic machine for final sealing of supercapacitor pouch cells

It is important to note that all these machines shall be table-top/bench-top type custom designed units and shall have the features/capability for semi-automatic operations.

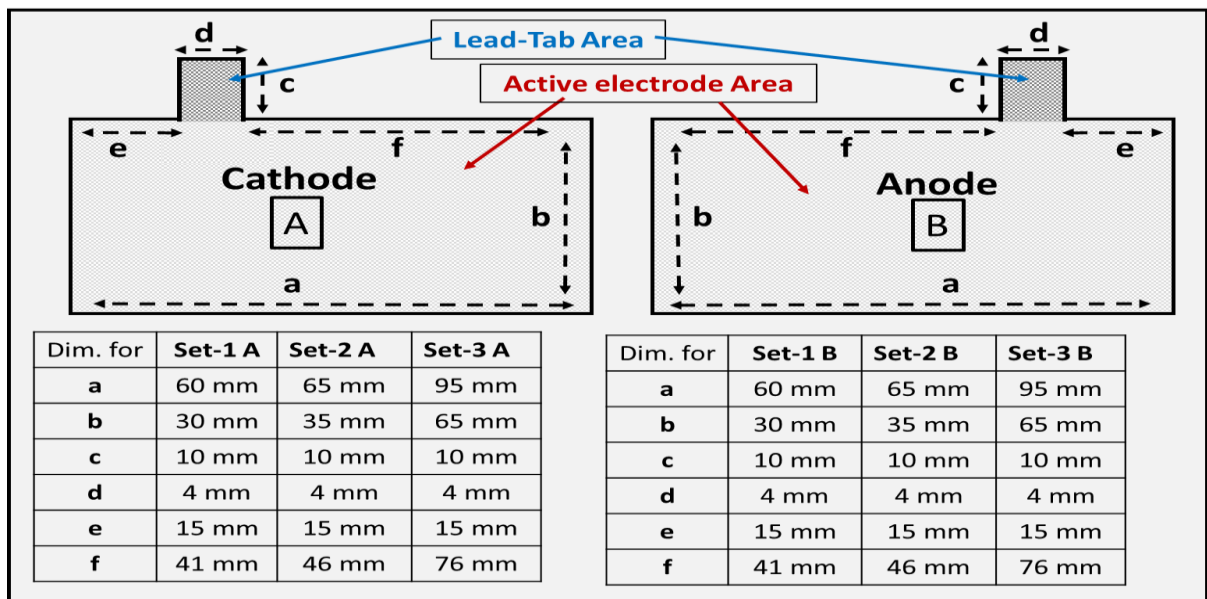
M-1) Precision electrode-cutting unit with electrode cutting die-sets of different sizes

This precise electrode cutting machine is intended for cutting the aerogel carbon coated electrode sheet into desired sizes for making the pouch supercapacitors for different sizes. Hence, the machine shall have very high precision of cutting electrodes (cathodes & anodes) of defined shapes & sizes and also have with following features & technical specification, as detailed below,

- 1) Electrode cutting machine shall be of table-top type design and shall have three interchangeable die-sets for cutting aerogel carbon coated electrodes of desired sizes & shapes very precisely for use in making pouch-cell type supercapacitors comprising several stacks of electrode assemblies.
- 2) Precise electrode cutting machine should have necessary tools/die-sets for cutting both cathode & anode electrodes in the specific shapes & sizes. Machine also shall have the capability to accommodate the largest cutting die-set of size,

300 mm (L) x 200 mm (W) with electrode cutting accuracy of ± 0.1 mm or better.

- 3) Machine shall be designed for feeding the electrode manually either in sheet form or in continuous roll form. Cutting stroke shall be about 250 mm and the tensile of cylinder shall be about 0.15 ton. Machine shall also have the capacity to produce air-cylinder pressure upto 3 tons. Machine shall be capable of cutting aerogel carbon coated electrodes (on Al foil of thickness 20-50 μm) having the overall thickness of 150-300 μm .
- 4) Vendor shall also provide **three-sets** of easy interchangeable electrode cutter die-sets for cutting the cathode & anode electrodes having the active coating area of sizes – (i) Set-1:60 x 30 mm; (ii) Set-2:65 x 35 mm and (iii) Set-3:95 x 65 mm in respective shape & size as per the drawing given below,



- 5) Precise electrode cutting machine shall have the power of 100 W or more and shall have the capability to cut electrodes without burr, good consistency and fast cutting ability (400 pieces or more per hour)
- 6) Electrode cutting machine shall possess necessary safety precautions, such as safety curtains in front of the cutting machine and double start button for operator safety.
- 7) The machine shall have a control panel/unit for controlling the process parameters and it shall be designed for working with line voltage of 220 V AC (50 Hz)
- 8) Machine shall be designed to use the compressed air of supply pressure of 5-7 bar (from air tank, available at C-MET) for its pneumatic/pressure controls during the electrode cutting operation. Suitable push-type PU connectors (PU-8 or PU-10) and PU tubes of 5-7 meters length shall be provided for connecting the air supply line with the machine.
- 9) Vendor shall design and supply this precise electrode cutting machine with (i) **three-interchangeable cutting die-sets**, (ii) necessary **tools for die-set**

changing and (iii) one hard copy of operation manual for easy operation of the machine.

M-2) Semiautomatic electrode stacking unit with continuous paper feeder

This semiautomatic electrode stacking machine is intended for stacking multiple sets of cut-electrode pieces and separator paper as per the supercapacitor / EDLC configuration for fabrication of Pouch cell type supercapacitors. The electrode stacking unit shall be very precise and perfect in all respect, i.e., maintenance of perfect parallelism among all the electrode stacks/layers. Therefore, the designed machine shall have the following features and meet the following technical specification, as detailed below,

- 1) This Semiautomatic electrode stacking machine should be capable of stacking multiple layers of cathode and anode of different sizes. The based unit shall have the capacity of stacking layers of sizes 0~200 mm (L) x 0-200 mm(W)) with continuous separator paper in between two active electrodes in semiautomatic fashion.
- 2) The machine shall stack electrodes with separator paper with Z-shaped lamination from feed paper roll in a continuous paper feed source. Hence, machine shall have the suitable spring-loaded holder for loading the paper roll while doing the electrode stacking.
- 3) The machine shall have the provision to press the stack of each electrodes layers after placing it in place and it shall also have the pedal operated mechanism for pressing the placed electrodes.
- 4) Machine shall be capable of performing electrode stacking operation for any given dimensions within the max. sizes of 0~200 mm (L) & 0~200 mm (width) with separator paper. There must be provision for adjusting the stack-dimensions to any given size, say (i) 60 x 40 mm; (ii) 65 x 45 mm; (c) 95 x 75 mm and provision for stacking electrodes of any others sizes, within the total capability of 200 x 200 mm.
- 5) Machine shall have the separator paper feeder for feeding separator paper roll of roll diameter upto 250 mm, fixed travel distance of 400 mm and the travel cycle of 1-9999 cycles.
- 6) Machine shall have the minimum output power of 100 W and shall be designed for working at supply line voltage of 220 V AC (50 Hz)
- 7) Vendor shall design and supply this precise electrode stacking machine with (i) required **tools** for adjusting the stakes of required sizes and (ii) a hard copy of operation manual for easy machine operation.

M-3) Ultrasonic spot-welding unit with welding die-sets of different sizes

The ultrasound spot-welding machine is intended for perfect welding of electrode stacks with terminal lead-tabs perfectly for making pouch-cell type supercapacitor elements. The welding process & the welded specimen shall be very precise and compact in all respect (electrical & mechanical point of view) in order to have very minimal contact/junction resistance and mechanically

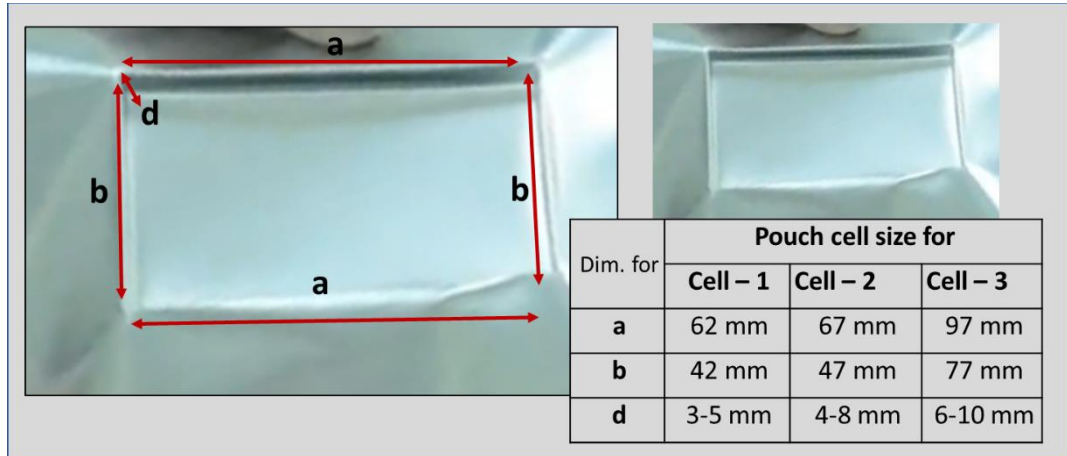
stable for further processing of welded specimen in making supercapacitors out of it, i.e., no sliding-over of stacked-electrode during welding and/or no delamination of electrode/tabs after welding. Therefore, this spot-welding machine shall be designed for ultrasound welding technique and shall have the following technical specification & features, as detailed below,

- 1) Ultrasonic electrode welding machine should be a table top model and have the capability of welding Al & Cu current collector based stacked electrode sheets and also tabs onto the current collectors during the fabrication of carbon aerogel super capacitor pouch cells.
- 2) Designed ultrasonic electrode welding machine shall have the capacity of welding 10~30 layers of aluminum-foils or copper-foils based electrode stacks with aluminum lead-tabs or nickel lead-tabs.
- 3) Operations of the ultrasonic electrode welding machine shall be controlled through a touch screen controller and/or CPU control (required software (OS: Windows 10) shall be provided in case CPU controlled process)
- 4) Machine shall be designed & supplied with welding output power of 2500 W or more and operate at the frequency of 24 kHz and suitable for operation at ambient conditions of 25-35°C & ~50% RH. Machine shall also be designed for working at line voltage of 220 V AC (50 Hz) and
- 5) Machine shall be designed for welding electrode of following type/layers and vendor shall provide required **welding-heads** of different sizes (as mentioned below) along with the machine:
 - a) 10~25 nos. of electrode stacks (Al foil thickness: 12-50 μm each + Al-lead tab thickness: of 0.1-0.3 mm each) and the size of tab-welding zone shall be (i) 4mm x 6mm, (ii) 4mm x 8mm; (iii) 4mm x 10mm, and (iv) 4mm x 12 mm.
 - b) 10~25 nos. of electrodes on Cu-foil (Cu-foil thickness: 90-120 μm each + 100-300 μm each of Ni or Nickel-cladded copper-tab welding with welding zone-size of (i) 4mm x 6mm; and (ii) 4mm x 10mm,
 - c) 0.2 mm Al belt + 0.2 mm Ni belt or nickel-clad copper wrapping welding with welding point of (a) 4mm x 6mm; (b) 4mm x 8mm; (c) 4mm x 10mm and (d) 4mm x 12 mm.
- 6) Machine shall be designed to use the compressed air of supply pressure of 5-7 bar (from air tank, available at C-MET) for its pneumatic/pressure controls during its operation. Suitable push-type PU connectors (PU-8 or PU-10) and PU tubes of 5-7 meters length shall be provided for connecting the air supply line with the machine.
- 7) Vendor shall design and supply this precise electrode welding machine with (i) **different sets of welding-heads**, as specified above for welding electrode stacks of different sizes and (ii) a hard copy of operation manual for this machine.

M-4) Pouch cell case forming unit with different size die-sets

This semiautomatic Pouch-cell case forming machine is intended for making the pouch-cell case for supercapacitors of different sizes. The cell case forming machine shall be capable of making cell-case with very high precision in all respect, i.e., precise mold design, no crow’s feet and sag at each corner of the case after forming. Therefore, the designed machine shall have the following features and meet the following technical specification, as detailed below,

- 1) Pouch cell case forming machine should be table-top type unit capable of making pouch-cell cases with aluminum polymer laminated film for fabricating supercapacitor pouch-cells of different groove sizes (inner in mm): (i) 62 x 42x 3-5(depth); (b) 67 x 47x 4-8 (depth) and (c) 97 x 77x 6-10 (depth). Provision shall be provided to adjust the depth of pouch cell.



- 2) This pouch cell case forming machine shall be designed and supplied with simple spring mold with smaller size suitable for laboratory type development and shall have quick interchangeable mold and adjustable stretching depth. Contact parts shall be made of high strength chrome steel & aluminum alloy. The surface of the mold should be covered with environmentally friendly electroplating with baking finish. Mold parts of the machine shall have the (i) surface roughness of 0.4 (mirror reflection) or better, (ii) upper & lower die flatness of 0.02 mm or better and (iii) core flatness of 0.02 mm or better.
- 3) Pouch cell case forming machine shall be designed and supplied with guide column structures for smooth sliding up &down. Maximum usable size of Al-laminate shall be 300 mm (L) x 280 mm (W).
- 4) Supplied mold for the pouch cell case forming machine shall be designed in such way that the formed/ produced pouch cell shall be of without sag and crow feet at each corner of the case and have the case production capability of 100-150 cases/hour or more.
- 5) Designed machine shall have the output power of 100 W or more and capable of exerting output pressure of 5 tons. Machine shall be designed for working at supply line voltage of 220 V AC (50 Hz)
- 6) The machine shall have all the safety features, protective curtain & cover to protect the operator during the operation

- 7) Machine shall be designed to use the compressed air of supply pressure of 5-7 bar (from air tank, available at C-MET) for its pneumatic/pressure controls during the its operation. Suitable push-type PU connectors (PU-8 or PU-10) and PU tubes of 5-7 meters length shall be provided for connecting the air supply line with the machine
- 8) Vendor shall supply this pouch cell case forming machine with interchangeable molds for making cell-case of different sizes/depths, as specified above.

M-5) Compact Heat-sealing machine for supercapacitor pouch cell-Top &cell-Side sealing

This compact heat-sealing machine is intended for precise sealing of three sides (top-side with lead-tab & two sides) of the supercapacitor pouch cell case (consisting the supercapacitor electrode stacks of diff sizes). All three sides of pouch cell case including the top-side having the lead-tab are to be sealed perfectly before impregnation of electrolyte into it. Therefore, the basic design of this sealing machine shall be compact and capable of doing the sealing (top-side with lead-tab & two others sides) and shall have the following features and also meet the following technical specification, as detailed below,

- 1) Heat-sealing shall be designed and fabricated for sealing all-three sides by simultaneous application heat and pressure onto the pouch-cell case, made with Al-laminated film. The overall sealing thickness shall be in the range of **0.15 to 0.3 mm** (normal side area) and **0.2 to 0.5 mm** (top-side, the tab-area).
- 2) This heat-sealing machine shall be designed with soft sealing blade (Cu sealing blade with Al & rubber piece) and sealing-head suitable for both top-sealing (lead-tab area) and cell-sides (normal side area) for sealing the pouch case. Sealing operation shall be at the temperature range of 80° to 250°C with temperature accuracy of $\pm 2^\circ\text{C}$. Provision shall be provided for adjusting the sealing temperature at any values within the max. limit of 250°C.
- 3) The cell sealing area/cavity of the machine shall be made up with corrosion resistant aluminum alloy solid structure and sealing-head length shall be upto 200 mm. Provision shall be provided for adjusting the sealing length to any values within the maximum length of 200 mm. The sealing stamp-width shall be **5-6 mm** and high uniformity across the full sealing width & sealing length. Machine be capable of sealing the pouch cells of max. sizes of 150 x 150 mm.
- 4) The machine shall be designed in such a way that it can exert the sealing pressure of 5-7 bar (0.5~0.7 MPa) and the provision shall be provided for adjusting the sealing-head pressure to any value within the max. pressure limit of 7 bar. Please note that an automatic On/Off type air compressor with air tank capacity of 200L & supply air pressure of 5-7 bar is available at C-MET. Machine shall be designed to use the compressed air (from air tank) for its pneumatic/pressure controls during the operation. Suitable push-type PU connectors (PU-8 or PU-10) and PU tubes of 5-7 meters length shall be provided for connecting the air supply line with the machine.
- 5) Machine shall have the provision for adjustable sealing time setting and the sealing time shall be in the range of 1-99 second.
- 6) The machine shall have all the safety features, including the protective curtain & cover to protect the operator during the operation
- 7) Machine shall have the output power of 600 W or more and shall be designed for working at supply line voltage of 220 V AC (50 Hz)

- 8) Vendor shall supply this compact heating sealing machine with interchangeable tools/sealing blades for making cell-case of different sizes and also a hard copy of operation manual for this machine shall be provided.

M-6) Semi-automatic machine for electrolyte diffusion under vacuum

This semiautomatic electrolyte impregnation under vacuum system is intended for impregnating liquid electrolyte into the stacks of aerogel-based electrodes for making the pouch-cell type aerogel supercapacitors of different sizes/values. Therefore, the basic design of the machine shall have the following technical specification & features, as detailed below,

- 1) Machine shall be designed in table-top type model for impregnation of liquid electrolytes under vacuum followed by pre-sealing in a sequential manner by a single operation. Therefore, the equipment shall be capable of (a) removing residual air from the electrode-stacks under defined level of vacuum (-90 KPa to -0.1 KPa or $675\sim 7.5$ mm of Hg), (b) injection of liquid electrolyte from electrolyte tank after completion of step a) and control the vacuum level & time to ensure complete saturation of electrolyte, and (c) performing precise heat-sealing at pouch-end after completion of step b) to have sealed supercapacitor pouch cell. Chamber body shall be ~ 12 mm thick aluminium case with suitable view-port/window.
- 2) The electrolyte diffusion machine shall be designed & fabricated in such a way that it should be the leak-proof unit with capability of (a) achieving vacuum level of $-90 \sim 1$ KPa ($675\sim 7.5$ mm of Hg) or better in a short time, (b) capable of holding vacuum for the period of 30-150 min and (c) highly leak proof with leakage level shall not be more than 0.01 MPa (at least 5 minute). Vendor shall supply a suitable oil-free type vacuum pump (capable of achieving desired vacuum level of $675\sim 7.5$ mm of Hg, vacuum hose & clamps along with the machine for this purpose and the supplied vacuum pump shall be compatible for use in dry-room of $\sim 1\%$ RH.
- 3) Machine shall be supplied with automatic electrolyte filling device coupled with electrolyte tank/bottle (volume: 1 liter or more) and precise electrolyte solution dispenser for dispensing the requisite quantity of electrolyte (dispensing volume in the range of **0.5 ml to 15 ml**) with dispensing volume accuracy of 0.5%. Suitable flexible discharge tube (compatible for different electrolyte medium, especially acetonitrile, propylene carbonate, etc.) with handle shall also be supplied along with the machine for dispensing the liquid electrolyte precisely and safely.
- 4) Machine shall be designed & supplied with suitable heat-sealing arrangements. Heat sealing head shall be capable of performing the precise sealing operation at temperature ranging from 50°C to 250°C with a temperature accuracy of $\pm 2^{\circ}\text{C}$ and have the provision of adjusting the sealing head position, so that machine can be used for sealing pouch cells of different sizes. The heat-sealing pressure shall be in the range of $0\sim 7$ Kg/cm² and provision shall be provided for adjusting the head pressure. Heat-sealing

time shall be in the range of 1-99 second (with provision for adjustment sealing time).

- 5) The machine shall be designed with hard type sealing blade (without rubber for aluminium case sealing) with sealing **width upto 5 mm** and the sealing-head **length upto 200 mm** (suitable for making pouch max. size of 180mm x120 mm x10mm).
- 6) Machine shall have suitable control panel and the machine operations shall be controlled through a touch screen and/or suitable controllers. All safety features, such as over temperature protection, over pressure protection, and personal safety for operators shall be included.
- 7) Machine shall be designed to use the compressed air of supply pressure of 5-7 bar (from air tank, available at C-MET) for its pneumatic/pressure controls during the its operation. Suitable push-type PU connectors (PU-8 or PU-10) and PU tubes of 5-7 meters length shall be provided for connecting the air supply line with the machine.
- 8) Machine shall have the output power of 500 W or more and shall be designed for working at supply line voltage of 220 V AC (50 Hz)
- 9) Vendor shall design, fabricate and supply this semiautomatic electrolyte diffusion machine with suitable vacuum pump, interconnects and one operation manual along with the machine.

M-7) Semiautomatic machine for Final sealing of supercapacitor pouch cells

This sealing machines is intended for final sealing of electrolyte impregnated supercapacitor pouch cells assemblies of different sizes (as defined earlier) under vacuum. Therefore, the machine design shall be compact, and have the capability of performing the final sealing operation and shall have the following features and also meet the technical specification, as detailed below,

- 1) Final heat-sealing shall be designed and fabricated in a table top model for final sealing of electrolyte impregnated supercapacitor pouch cells assemblies of different sizes (as defined earlier). Designed machine shall perform the final sealing operation very precisely using the copper sealing-head of length upto 200 mm. The sealing width and sealing length shall be 5 mm and 200 mm (max.) respectively and provision shall be provided for adjusting sealing length for different cell sizes, as indicated earlier.
- 2) Sealing head of the machine shall be perfectly parallel with triple carbonless paper, capable of withstanding the head pressure at 6 bar (~0.6 MPa) and sealing temperature of upto 250°C.
- 3) This final heat-sealing machine shall be designed for performing the sealing operation under vacuum and shall have the auto-needle function for recycling the excess electrolyte. The vacuum level shall be in the range of -90 KPa ~ 1 kPa (675 ~7.5 mm of Hg) for removal of gas/liquid present inside the pre-sealed cells. Vendor shall supply a suitable oil-free type vacuum pump (capable of achieving desire vacuum level of 675~7.5 mm of Hg, vacuum hose & clamps along with the machine for this purpose and supplied vacuum pump shall be compatible for use in dry-room of ~1% RH.
- 4) This final sealing machine shall be designed performing the sealing operation at temperatures range of 50° to 250°C with a temperature accuracy of $\pm 2^\circ\text{C}$. Provision

shall be provided for adjusting the temperature at any value within the max. limit of 250°C.

- 5) This Final pouch cell sealing machine shall be designed in such a way that it can exert the sealing pressure of 4-7 bar (0.4~0.7 MPa) and the provision shall be provided for adjusting the sealing-head pressure to any value within the max. pressure limit of 7 bar. Machine shall be designed to use the compressed air of supply pressure of 5-7 bar (from air tank, available at C-MET) for its pneumatic/pressure controls during the its operation. Suitable push-type PU connectors (PU-8 or PU-10) and PU tubes of 5-7 meters length shall be provided for connecting the air supply line with the machine.
- 6) Machine shall have the provision for adjustable sealing time setting and the sealing time shall be in the range of 1-99 second.
- 7) The machine shall have all the safety features, including the protective curtain & cover to protect the operator during the operation
- 8) Machine shall be designed for working at supply line voltage of 220 V AC (50 Hz)
- 9) Vendor shall design, fabricate and supply this final heat-sealing machine with interchangeable tools/blades for making cell-case of different sizes and also a hard copy of operation manual along with the machine.

➤ **Supply of Materials for performing experiments including machine trials**

Vendor shall supply the following materials along with machines for performing experiments including conducting machine trials.

	Materials & its specification	Quantity
1)	Carbon coated Aluminium current collector foil-Roll [Specification: Purity: >99.5%; Foil thickness: 20±2µm; carbon coating thickness: 1-2 µm on each side; foil width: 300 mm; foil length: ~150 meter per roll]	6 rolls
2)	Al-laminated polymer film roll for Pouch cell case forming [Specification: overall thickness: 110-115 µm; film width: 400 mm; film length: 300 meter/roll; heat-sealing condition: 180-190°C; film surface: Mat-finish]	3 rolls
3)	Tinned coated copper tabroll for terminal leads [Specification: Tab thickness: 0.25 mm, Tab width: 5 mm; tab length: ~100 meter per roll]	3 rolls
4)	Hot-melt polymer laminate roll for pouch cell tab-sealing [Specification: overall thickness: ~0.1 mm; width: 6 mm, length: ~100 meter per roll; color: white/milky white]	2 rolls

➤ **Other requirements (common for all the machines, mentioned above):**

- **Machine lay-out/ drawing:** Vendor shall provide the brief line-drawing/layout of the respective machines along with the technical bid for clarity and better understanding during technical evaluation of quoted system.
- **Machine housing & Out-finish:** All machines shall be designed in table-top model with strong frame/support with side covers. Out-finish of machines shall have powder coating on frame, side cover.

- **Tool-sets:** Vendor shall provide complete **Tool-set** comprising complete sets of spanners, adjustable spanners, Allan-key set, screwdriver set, ratchets, etc. for respective machines for easy operation, maintenance and changing die-sets, etc. as-per requirements.
- **Specification Compliance Statement (SCS):** Vendor shall prepare SCS for each machine with respect to the C-MET's specification and provide the SCS of respective machine along with Technical bid.
- **Essential accessories:** Vendor shall provide the list of essential spares/accessories and their costs separately for respective machines. C-MET may consider these spares/access (part or full), depending upon the requirement & availability of funds.
- **List of Supplier:** Vendor shall provide the list of supply made for the similar items/machines in India with details of contact person (name, institute/organization, email & Telephone nos., etc.).
- **Operation Manual:** Vendor shall provide one hard copy of operation manual for the respective machines which shall comprise the details of machine drawing, final technical specifications, standard operation procedure and common trouble shooting. Operation manual shall be separate for each machine
- **Delivery:** Vendor shall deliver these machineries to C-MET, Thrissur for installation & commissioning. Vendor shall indicate clear delivery schedule in their offer. Vendor shall also provide the shipment details of respective machines, i.e., gross-weight, number of boxes, place/port of shipment, etc. along with the Technical /Financial Bid.
- **Pre-installation requirements:** Vendor shall provide complete/detailed list of pre-installation requirements (such as space, no. of power points with power rating, compressed air, etc.) along with technical bid for arranging the same prior to installation/commissioning the machine. Vendors may also provide quote for critical pre-installation components/items separately, which vendor seems may not be available at C-MET.
- **Installation/ Commissioning:** Vendor shall install & commission all these machines at C-MET (Thrissur) for operation at free of cost. However, if additional cost/charges are involved for installation/commissioning, it should be clearly indicated and cost of installation shall be quoted in the **Fin. Bid**, which will be included with the cost of main unit while making the financial comparison for identifying the L1 party. Please note that vendor has to demonstrate the machine performance satisfactorily at C-MET and the machine will be accepted only after satisfactory performance demonstration at C-MET.
- **Training:** Vendor shall provide adequate training to C-MET staff on the operation of respective machines on day-to-day basis at free of cost. Training shall also include maintenance and frequent trouble-shootings.

➤ **Warranty:**

- Vendor shall ensure that supplied machines shall cover one-year full warranty. Starting date for warranty will always be the date of which machines are successful commissioned at C-MET, Thrissur.
- Vendor shall also provide separate quote for AMC charges for additional/next 2 years for this facility, which will be decided later depending of the situation/availability of funds at that moment

➤ **Facility available at C-MET:**

- **LineSupply:** 220 V AC (single Phase, 50 Hz) line supply is available at C-MET, Thrissur for operation of machine. Vendors shall design & supply the machines/systems for working with the 220V AC supply only. Vendor shall also provide at least 3-4 meters cables with 3-pin plug top for each machine.
- **Compressed Air:** C-MET is having an automatic On/Off type air compressor with air tank capacity of 200L & supply air pressure of 5-7 bar. All machines shall be designed to use the compressed air (from air tank) for its pneumatic/pressure controls during the operation. Vendors shall provide the required nos. of suitable push-type PU connectors (PU-8 or PU-10) and PU tubes of 5-7 meters length for each machine for connecting the existing air supply line with the respective machines.

SECTION VI : BID FORM AND PRICE SCHEDULE

BID FORM AND PRICE SCHEDULE

Tender Format Indian Suppliers
(Ref. Section II (IBIB), clause 4 B(i) .)*

Name of the Firm :
 (Specify whether authorized agent or OEM)
 Name of the Manufacturer:

Firm Registration No. (If any)		Date			
GST No.		PAN (Attach photocopy)			
Phone	Address :				
Fax					
Email					
URL					
Tender Schedule : All rates in Figures and in Words in Rupees					
Tender No. and Date					
Sr. No.	Description and Specification	Qty	Unit	Rate per unit	Amount
Packing / Forwarding charges					
GST					
Total value					
Delivery Terms					
Delivery Schedule :					
Enclosed Specifications/Drawings/Special Conditions of Contract :					
Item /Tender Specific Conditions of this Tender :					
I/we engage to supply the material(s) to your office and comply the following 1) Tender schedule and technical specification indicated 2) Item/tender specific conditions for this tender 3) Terms and conditions printed overleaf 4) General conditions of contract signed by me at the time of supplier registration (for registered suppliers) 5) I/we confirm that set off for the GST paid on the inputs have been taken into consideration in the above quoted price and further agree to pass on such additional duties as sets offs as may become available in future under GST 6) This offer is valid for 90 (ninety) days from the date of opening of the tender 7) That we have not been debarred by any Government /Undertaking 8) That the rates quoted are not higher than the rates quoted for same item to any Government/ Undertaking 9) That the bid submitted by us is properly sealed and prepared as to prevent any subsequent alteration and replacement.					
Signature & Seal		Name of			
Place & Date		Authorised			
		Signatory			
Address		Tel. No/Fax No/ Mobile No.			
		Email id			

*** TENDERS NOT IN THE PRESCRIBED FORMAT WILL BE TREATED AS
 NON- RESPONSIVE & WILL BE REJECTED**

BID FORM AND PRICE SCHEDULE

(Ref. Section II (IBIB), clause 4 B (i) .)*

Tender Format Foreign Suppliers

Name of the Firm :
(Specify whether authorized agent or OEM)

Name of the Manufacturer:

Firm Registration No. (If any)		Date			
GST No. (if applicable)		PAN, if any (Attach photocopy)			
Phone	Address :				
Fax					
Email					
URL					
Tender Schedule : All rates in Figures and in Words either in INR or in Foreign currency					
Tender No. and Date					
Sr. No.	Description and Specification	Qty	Unit	Rate per unit (specify the currency)	Amount (specify the currency)
Packing / Forwarding charges					
FCA charges, if any					
Total FCA price					
Freight charges up to Cochin, Kerala, India					
Insurance charges					
Total CIF up to Cochin, Kerala, India					
Item /Tender Specific Conditions of this Tender :					
<p>I/we engage to supply the material(s) to your office and comply the following</p> <ol style="list-style-type: none"> 1) Tender schedule and technical specification indicated 2) Item/tender specific conditions for this tender 3) Terms and conditions printed overleaf 4) General conditions of contract signed by me at the time of supplier registration (for registered suppliers) 5) I/we confirm that set off for the GST paid on the inputs have been taken into consideration in the above quoted price and further agree to pass on such additional duties as sets offs as may become available in future under GST 6) This offer is valid for 90 (ninety) days from the date of opening of the tender 7) That we have not been debarred by any Government /Undertaking 8) That the rates quoted are not higher than the rates quoted for same item to any Government/ Undertaking 9) That the bid submitted by us is properly sealed and prepared as to prevent any subsequent alteration and replacement. 					
Signature & Seal Place & Date		Name of Authorised Signatory			
Address		Tel. No/Fax No/ Mobile No. Email id			

*** TENDERS NOT IN THE PRESCRIBED FORMAT WILL BE TREATED AS NON- RESPONSIVE & WILL BE REJECTED**

SECTION VII : FORM FOR DETAILS ABOUT THE TENDERER

FORM FOR DETAILS ABOUT THE TENDERER

(To be submitted with the Tender)

1. Tender Reference No : _____
2. Item No. : _____
3. Name of the Stores/Goods/Equipment : _____
4. Name of the Indian/Foreign Manufacturers : _____
or their authorized distributors, dealers or Indian Agent
5. Registered Office Address : _____
6. Address for Correspondence : _____
7. Please state whether party is Company/Firm/Agency:
Authorized Stockist/Dealer/Indian Agent
(In case of an Indian agent of a Foreign Supplier, please attach
copies of agency agreement and DGSD registration)
8. Total value of Annual Turn-Over/ Sales for the last 3 Years :
9. Sales Tax/Central Sales Tax Registration No:
and Date.....and Validity upto
10. Income Tax (PAN) No. : _____
G.I.R No./Circle / Ward
11. Name of the Bankers : _____
12. Address of the Bankers : _____
13. Past Performance of the firm/ Company : _____
Please enclose list of Parties (Scientific and
Technical Institutions) stating their Names and
addresses with telephone no. and the names of
same or similar items supplied to them during
Last three years. Please enclose the reference letters from clients.

S. No	Type of Stores/Goods/ Equipment	Name of the client	Value of the Purchase Order	Date of award of Purchase Order	Date of completion

14. Financial Soundness : _____
(Please enclose copies of certified financial
statements for the last three years.)
15. Technical Competence.& Work Experience in India :
16. Organizational Capability : _____

No. of qualified engineers:

Name of the key personnel & qualifications:

17. Whether any relative of Tenderer is working in C-MET. If so, give his name, designation and place of posting :
18. Details of EMD: Demand Draft/Pay Order No..... Dt.....
Amount Rs.....of.....(Name of Bank and Branch) Payable at (Name of City)
Bank Guarantee No..... Dt.....
FDR No.....Dt.....
19. Whether the extra terms quoted and the prices : Yes / No are open to negotiations.

“I/We have fully understood the foregoing general terms & conditions of Tender as well as the Special terms & conditions of Tender given in the Tender Document and having accepted the same in toto and I /We have made my / our offer keeping in view those terms and conditions. I/We fully agree that once I / We have endorsed in whatsoever and whichever way my/our signatures herein below all conditions whatsoever way mentioned by me / us which may not be acceptable to you / your principals shall be deemed to be withdrawn by me / us and am / are fully aware that no grievances whatsoever shall be entertained by you if our tender / quotation is not accepted / finalized”

Place		Name. Designation and
Date	Office Seal / Stamp	Signature of the Authorised
	Signatory	

**SECTION VIII: GUARANTEE BOND FOR PERFORMANCE SECURITY
DEPOSIT**

MODEL BANK GUARANTEE FORMAT FOR PERFORMANCE SECURITY

To

Centre for Materials for Electronics Technology (C-MET),
Shornur Road, Athani P.O., Thrissur, Kerala, Pin – 680 581

WHEREAS (name and address of the supplier) (hereinafter called “the supplier”) has undertaken, in pursuance of contract no..... datedto supply (description of goods and services) (herein after called “the contract”).

AND WHEREAS it has been stipulated by you in the said contract that the supplier shall furnish you with a bank guarantee by a scheduled commercial recognized by you for the sum specified therein as security for compliance with its obligations in accordance with the contract;

AND WHEREAS we have agreed to give the supplier such a bank guarantee;

NOW THEREFORE we hereby affirm that we are guarantors and responsible to you, on behalf of the supplier, up to a total of (amount of the guarantee in words and figures), and we undertake to pay you, upon your first written demand declaring the supplier to be in default under the contract and without cavil or argument, any sum or sums within the limits of (amount of guarantee) as aforesaid, without your needing to prove or to show grounds or reasons for your demand or the sum specified therein.

We hereby waive the necessity of your demanding the said debt from the supplier before presenting us with the demand.

We further agree that no change or addition to or other modification of the terms of the contract to be performed thereunder or of any of the contract documents which may be made between you and the supplier shall in any way release us from any liability under this guarantee and we hereby waive notice of any such change, addition or modification.

This guarantee shall be valid until the day of, 20.....

.....
(Signature of the authorized officer of the Bank)

.....
Name and designation of the officer

.....
Seal, name & address of the Bank and address of the Branch

FORMAT FOR BID SECURITY IN LIEU OF EMD

BID SECURITY IN LIEU OF EMD
(ON STAMP PAPER WORTH Rs.500/-*)

Date :
Tender Reference No.:
Item No.:
Name of Stores/Goods/Equipment:

To
Centre for Materials for Electronics Technology (C-MET)
Shoranur Road,
M.G. Kavu, P.O. Athani,
Thrissur – 680 581, Kerala, India

Sir,
Having examined the Bidding Documents of Tender No. _____
(*Insert Tender No.*),

We the undersigned, offer to supply and deliver

(*brief description of Goods and Services*) in conformity with the said bidding documents for the same for the price quoted in the Commercial Bid or such other sums as may be ascertained in accordance with the Schedule of Prices attached with the Commercial Bid and made part of this bid.

We undertake, if our bid is accepted, to deliver the goods in accordance with the delivery schedule specified in the Techno-Commercial bid of the Tender Document.

If our bid is accepted, we will submit the performance security deposit as directed in Tender Document for the due performance of the Contract, in the form prescribed by C-MET.

We agree to abide by this bid for a period of 90 (ninety only) days after the date fixed for bid opening and it shall remain binding upon us and may be accepted at any time before the expiration of that period.

We accept that if we withdraw or modify our Bids during the period of validity, or if we are awarded the contract and we fail to sign the contract, or to submit a performance security before the deadline defined in the bid document, we will be suspended for a period of three years from being eligible to submit Bids for contracts with C-MET.

Until a formal contract is prepared and executed, this bid, together with your written acceptance thereof and your notification of award shall constitute a binding Contract between us.

(Signature of the authorized representative of the Bidder)

.....
Name and designation of the officer
.....
.....

Seal,

Note (*) – In case of a Foreign Supplier with no Indian agent, the Guarantee Bond can be given on the letterhead of the Supplier after notarizing it.

SECTION IX: MANUFACTURERS' AUTHORIZATION FORM

MANUFACTURERS' AUTHORIZATION FORM

No. _____ dated _____

To :

Administrative Officer,
C-MET,
Shoranur Road,
M.G. Kavu, Athani Post,
Thrissur – 680 771, Kerala, India

Tender Reference No. :

Item No. :

Name of Stores/Goods/Equipment :

Dear Sir,

We _____ who are established and reputed
manufacturers of

_____ at
having _____ factories _____
_____ (address of
factory) do hereby authorize M/s. _____

_____ (Name and address of
Agent) to submit a bid, and sign the contract with you against the IBIB of the Tender
Document.

We hereby extend our full guarantee and warranty as per Clause 15 of the General
Terms and Conditions and Clause 2.21.3 of the Special Terms and Conditions of the
Tender Document for the goods and services offered by the above firm against this
tender.

Yours faithfully,

(Name)

(Name of manufacturers)

Note: This letter of authority should be on the letterhead of the manufacturer and should
be signed by a person competent and having the power of attorney to bind the
manufacturers. It should be included by the Bidder in its bid.

FORMAT FOR CHECKLIST

Check list for Tender No. TR/PUR/099/2019

Sl. No.	Particulars	Please put '√' mark
1.	Whether submitted EMD If not, whether eligible for EMD exemption	Yes/No
2.	Whether valid certificate claiming EMD exemption submitted	Yes/No
3.	Whether tender submitted in the prescribed format (Either in the attached format or in the letter head)	Yes/No
4.	Whether registered under GST ACT	Yes/No
5.	Whether submitted in two bid system/ single bid system	Yes/No
6.	Whether eligible for procurement preference	Yes/No
7.	Whether warranty as required by us quoted	Yes/No
8.	Whether the envelope containing quotations properly addressed, sealed and super scribed as required	Yes/No
9.	Whether principal supplier/ OEM itself or Agent /Dealer of behalf of Principal/OEM	Principal Supplier/OEM or Agent or Dealer of Principal supplier/OEM

Place:

Date:

Name, Signature & Seal
of Authorised Signatory