TENDER DOCUMENT FOR SOLAR INVERTERS ---- 3 NOS.

TENDER REFERENCE	
	PUR/330331334/ERTG/08/2018-19
CONTACT DETAILS	Director [Attention: Stores & Purchase Officer]
	CSIR-Central Mechanical Engineering Research
	Institute
	Mahatma Gandhi Avenue, Durgapur-713209, West
	Bengal
	e-mail: pur@cmeri.res.in

CRITICAL DATE SHEET	DATE	TIME
Bid Published Date	05 October 2018	3.00 pm
Bid Document Download / Sale Start Date	05 October 2018	3.00 pm
Bid Submission Start Date	05 October 2018	3.30 pm
Bid Submission End date	24 October 2018	3.00 pm
Last Date and Time for Submission of original DD against Tender fee & EMD [if applicable] / Hard Copy of Bid Form duly signed by Bidder	24 October 2018	3.00 pm
Bid opening date	25 October 2018	3.30 pm

THIS TENDER DOCUMENT CONSISTS OF THE FOLLOWING SECTIONS:

SECTION-1	NOTICE INVITING TENDER
SECTION-2	TERMS AND CONDITIONS
SECTION-3	SCHEDULE OF REQUIREMENTS
SECTION-4	TECHNICAL SPECIFICATIONS AND OTHER
	REQUIREMENTS / QUALIFICATION CRITERIA
SECTION-5	FORMS
	Bidder's Information Form
	Bid Form
	Manufacturer's Authorisation Form
	Price Schedule Form

NOTICE INVITING TENDER

 Director, CSIR-Central Mechanical Engineering Research Institute, Mahatma Gandhi Avenue, Durgapur 713209, West Bengal, invites e-tenders from eligible Manufacturers / Suppliers / Authorised Dealers for the following item/ items:

SI.	Tender Ref.	Description of Goods and	Quantity	Single/	Bid
No.		Services		Double	Security/
				Bid	EMD
1	PUR/330331334/ERTG/08/2	Solar Inverter PCU,	01 [one]	Single	NIL
	018-19	3Kva,48Vdc			
2		Solar Inverter PCU, 10Kva,	01 [one]		
		3 Phase			
3		5 kVA,96 VDC, 1-Phase	01 [one]		
		Solar Inverter / PCU			

- 2. E-Bids are invited through the electronic tendering process and the Tender Document can be downloaded from the e-Tender portal of Government of India, https://etenders.gov.in. Please note that the submission of e-Bids will be only through the e-Tender portal https://etenders.gov.in. Bids will not be accepted in any other form. Further it may be noted that Bids which are duly submitted on e-Tender portal shall only be considered and Bids just saved without submission will not be available to the Evaluation Committee of CSIR-CMERI.
- 3. Any Bidder willing to take part in the process of e-tendering will have to get registered in the Central Public Procurement [CPP] portal, NIC, Government of India, by logging on to the portal https://etenders.gov.in. Bidders are requested to go through "Bidder Manual Kit", "System Settings" & "FAQ" links available on the login page of the e-Tender portal for guidelines, procedures & system requirements. In case of any technical difficulty, Bidders may contact the help desk numbers & email ids mentioned at the e-tender portal. Every Bidder will be required to obtain a Class-III Digital Signature [DSC] for submission of Bids.
- 4. Tender fee and EMD [if applicable] will be required to be paid offline by Demand Draft drawn in favour of Director, CSIR-CMERI payable at Durgapur. Alternatively, EMD can also be furnished in the shape of a Bank Guarantee issued by any Nationalised/Scheduled Bank of India. Original Tender Fee and EMD to be sent to Director [Attn: Stores & Purchase Officer], CSIR-Central Mechanical Engineering Research Institute, Mahatma Gandhi Avenue, Durgapur 713 209, West Bengal, before the date and time mentioned in CRITICAL DATE SHEET. Bids of those tenderers whose EMD and Tender Fee are not received within the deadline for receipt of Bids will be summarily rejected. Any postal delay in this respect will not be entertained.
- 5. Hard Copy of BID FORM duly signed by Bidder must reach CSIR-CMERI before the date and time mentioned in the CRITICAL DATE SHEET.

STORES AND PURCHASE OFFICER

TERMS AND CONDITIONS

In these Terms and Conditions, the following words and expressions shall have the meaning as have been respectively assigned to them:

Bidder shall mean the entity submitting an e-Bid in response to this Tender Document.

CSIR-CMERI / Purchaser / **Institute** shall mean CSIR-Central Mechanical Engineering Research Institute, [a constituent unit of the Council of Scientific & Industrial Research] having its office at MG Avenue, Durgapur – 713 209 [West Bengal], India.

Vendor/Supplier shall mean the entity whose bid has been accepted by the Purchaser and a formal Purchase Order has been placed on them.

1. SUBMISSION OF BIDS

- 1.1. The e-Bid shall be digitally signed by the Bidder at the e-tendering portal by person / persons duly authorized to bind the Bidder to the contract. Written Power –of attorney [if required under the Bidding Process] should accompany the Bid. The person or persons signing the e-bid shall also physically sign each document of the Bid, except for printed literature. The e-Bid submitted shall be in readable form and encrypted as per e-tendering portal requirements. Standard Printed terms and conditions of the Bidder other than the NIT conditions shall not be considered.
- 1.2. The e-Bid shall be submitted in a single cover and shall consist of the following Documents:

SI.	Document Required	Document	
No.		type	
1	Scanned Bid Form duly filled-in and signed by	.pdf	
	Bidder		
2	Scanned Quotation with complete technical details	.pdf	
	duly signed by Bidder with Prices quoted in the		
	prescribed PRICE SCHEDULE FORM		
All the above scanned documents must be e-signed prior to being uploaded			
and sa	and saved in the system		

- 1.3. The bidders shall digitally sign and encrypt their bid and upload the bid on –line at the e-Tendering portal.
- 1.4. If the envelope is not digitally signed &encrypted the Purchaser shall not accept such open Bids for evaluation purpose and shall be treated as non-responsive and rejected.
- 1.5. Purchaser shall receive the bids online through CPP e-portal only. The e-Tender portal shall automatically stop accepting bids at the scheduled date and time specified in the Tender Document. Partially submitted bids shall be treated as invalid and shall not be processed. Bidders are advised to upload and submit their bids timely in view of the electronic process so as to avoid list minute issues.
- 1.6. Purchaser may, at its discretion extend the deadline for submission of the e-Bids by amending the Tender Documents in which case all rights and obligations of the Purchaser and Bidders previously subject to the deadline will thereafter be subject to the deadline as extended.

- 1.7. Bidders must note that the e-tender portal shall not permit uploading of bids after the scheduled time of submission.
- 1.8. The bidder may correct or modify his digitally signed bid after submission prior to the deadline for submission of bids, through provisions of e-tendering portal.

2. PRICES

- 2.1. In case an MS-EXEL BOQ file is provided, Bidders are requested to note that they should necessarily submit their financial bids in the MS-EXEL format provided and no other format is acceptable. Bidders are required to download the BOQ file, open it and complete the unprotected cells with their respective financial quotes and other details (such as name of the bidder). No other cells should be changed. Once the details have been completed, the bidder should save it and submit it online, without changing the filename. If the BOQ file is found to be modified by the bidder, the bid will be rejected. It may be noted that only duly submitted bids shall be evaluated and bids just saved but not submitted shall not be part of the evaluation process. In case MS-EXEL BOQ file is not provided, Bidders should quote their Prices in the prescribed Price Schedule Form and upload the .pdf file on the e-tendering portal. All applicable taxes should be clearly shown in the Price Schedule Form.
- 2.2. Prices for supply from within India shall be offered with the following break-up:

Basic Price /Ex Works	
Packing & Forwarding	
GST at applicable rate	
Freight, Insurance and any other charges incidental to	
delivery of Goods at CSIR-CMERI, Mahatma Gandhi	
Avenue, Durgapur-713209,West Bengal	
Charges for Installation, Commissioning and Training if	
applicable	
Charges for Warranty Support if any	

Prices for supply from outside India shall be offered with the following break –up:

Ex Works Price [inclusive of packing]	
Inland Freight and Insurance till Airport of Despatch	
Freight And Insurance for transportation of the Goods from Port	
of Despatch to Port of Destination	
Charges for Installation, Commissioning and Training if	
applicable	
Charges for warranty support if any	
Note: Delivery Terms such as EOR ECA EXW CIP CIE etc. sha	Il he governed by

Note: Delivery Terms such as FOB, FCA, EXW, CIP, CIF etc. shall be governed by the rules prescribed in the latest edition of INCOTERMS issued by the International Chamber of Commerce, Paris.

- 2.3. In the event of any errors or ambiguity in Unit Rates itself, the Price Bid of the Vendor shall be rejected.
- 2.4. CSIR-CMERI shall not consider any changes on any account after the submission of Bid and hence the prices offered shall remain firm during the validity of the Bid and shall not be subject to variation on any account.

- 2.5. The bidder shall quote as per Price Schedule Format given in this Tender Document. However, in case an MS-EXEL BOQ file is provided, the Prices should be quoted only in the BOQ file to be downloaded from the e-tendering portal.
- 2.6. Prices of additional / optional items not appearing in the BOQ, if any, shall be quoted in a separate PDF file, duly signed by Bidder's authorised person/persons
- 2.7. Each Bidder should submit only one product for each item. Offering products of more than one brand or multiple models of the same brand against one item shall render the Bid invalid and such offers shall be rejected at technical/ financial stage wherever such defaults are noticed.
- 2.8. Customs Duty for Goods imported for Scientific Purpose, is paid by this Institute at a concessional rate vide Govt. of India Notification no. 51/96-Customs dated 22/07/1996.
- 2.9. CSIR-CMERI is registered with the Department of Scientific & Industrial Research, Govt. of India for availing concessional GST under provisions of Govt. Notification Nos. 47/2017-Integrated Tax (Rate) dated 14/11/2017, 45/2017-Central Tax (Rate) dated 14.11.2017, North. No. 45/2017- Union Territory Tax (Rate) dated 14.11.2017, as amended from time to time.
- 2.10. CSIR-CMERI is not empowered to issue any Sales Tax Concessional Certificates [FORM C / FORM D]; thus Bidders shall ensure that the normal rate of Sales Tax is quoted wherever applicable.
- 2.11. CSIR-CMERI shall not issue any exemption certificates (CDEC etc.) for materials/commodities that go into production of the quoted item/equipment.
- 2.12. Reference to any brand/make/model in the Tender Document is only indicative in nature. Bidder is free to quote any other product provided such product meets the desired specification/requirement.

3. PAYMENT

3.1. Payment shall be made within 30 days of delivery and acceptance of all the ordered goods or completion of installation and commissioning of the goods as the case may be, to the complete satisfaction of the User Division of CSIR-CMERI and completion of other contractual obligations.

4. DELIVERY

- 4.1. Delivery of the Goods and performance of the Services shall be made by the Supplier in accordance with the time schedule specified by CSIR-CMERI in the Purchase Order. If, at any time during performance of the Contract / Purchase Order, the Supplier encounters conditions impeding timely delivery of the Goods and performance of Services, the Supplier shall promptly notify CSIR-CMERI in writing of the fact of the delay, its likely duration and its cause(s). As soon as practicable after receipt of the Supplier's notice, CSIR-CMERI shall evaluate the situation and may, at its discretion, extend the Supplier's time for performance with or without penalty, in which case the extension shall be ratified by the parties by amendment of the Purchase Order / Contract.
- 4.2. A delay by the Supplier in the performance of its delivery obligations shall render the Supplier liable to the imposition of penalty pursuant to Penalty Clause as detailed below, unless an extension of time is agreed upon without the application of penalty clause.

5. LIQUIDATED DAMAGES

5.1. If the Supplier fails to deliver the ordered material (s) within the delivery schedule as agreed upon, a sum equivalent to 1 (one) per cent of the delivered price of the delayed goods or unperformed services

or Purchase Order value for each week of delay or part thereof until actual delivery or performance, will be deducted from the order value as liquidated damages, subject to a maximum deduction of 10 (ten) per cent of the order value. And, on attainment of maximum, termination of the contract may be considered by CSIR-CMERI.

6. RISK PURCHASE

6.1. If the supplier fails to deliver the ordered material(s) within the maximum delivery period specified in the purchase order, CSIR-CMERI may procure such item(s) and in such a manner as deemed appropriate, goods or services similar to those undelivered and the supplier will be liable to the institute for any excess costs for such similar goods or services.

7. INDIAN AGENT

- 7.1. In case an Indian agent is directly submitting a bid on behalf of its Principals, a copy of the Authorisation Certificate issued by the Principals in favour of the Indian agent should be furnished along with a certified copy of the Agency Agreement between the foreign Principal and India agent. Both these certificates should be up-to-date and valid.
- 7.2. Foreign Bidders to disclose the name and address of agent and representative in India and Indian Bidder to disclose their foreign Principal or associate.
- 7.3. Agency Commission, if any, payable to the Indian agent will be released within 60 (sixty) days of completion of installation and commissioning of the equipment to the entire satisfaction of the buyer. For determining the value of agency commission, exchange rate of foreign currency prevailing on the date of negotiation of documents, will be taken into consideration.
- 7.4. In a tender either the Indian agent on behalf of the Principal/OEM or Principal/OEM itself can bid but both cannot bid simultaneously for the same item/product in the same tender.
- 7.5. If an agent submits bid on behalf of the Principal/OEM, the same agent shall not submit a bid on behalf of another Principal/OEM in the same tender for the same item/product.

8. INSTALLATION, COMMISSIONING AND TRAINING

8.1. The ordered goods are required to be installed within 15 days of receipt of goods at this Institute. Installation should be carried out only by expert engineers of Supplier / Manufacturer. During the course of installation, necessary training on operation and maintenance of the goods shall be imparted to Institutes, Scientist / Engineers/Technicians.

9. WARRANTY

9.1. Comprehensive on-site warranty for a period as mentioned at **SECTION-4** of this Tender Document must be provided to be effective from the date of completion of installation and commissioning and final acceptance of the items / equipment at the user's laboratory / Institute.

10. COUNTRY OF ORIGIN

10.1. Tenderer should mention the country of origin and the country from which goods will be finally shipped, for these particulars are essential for arranging insurance etc. Certificate of Origin issued by the Local

Chamber of Commerce shall be required to be submitted in case such a requirement is stipulated in the Purchase Order.

11. VALIDITY OF BIDS

11.1. The offer should be valid for at least 90 days from the date of opening of e-Bids/e-Quotation.

12. LIST OF PURCHASERS

12.1. Please indicate names and addresses of organizations to whom you have supplied identical or similar type of equipment during the last 3 years along with the details of such supplies and prices eventually or finally paid.

13. EVALUATION OF BIDS

- 13.1. All the e-bids / e-tenders/ e-quotations received will first be scrutinized to see whether the bids / tenders meet the basic requirements as incorporated in the Tender Document. The bids/tenders, which do not meet the basic requirements, are to be treated as unresponsive and ignored. The following are some of the important points, for which a tender may be declared as unresponsive and to be ignored, during the initial scrutiny:
 - a) The Bidder is not eligible.
 - b) The Bid validity is shorter than the required period.
 - c) The Bidder has quoted for goods manufactured by a different firm without the required authority letter from the proposed manufacturer.
 - d) The goods quoted are sub-standard, not meeting the required specification etc.
 - e) Against the requirement (incorporated in the Tender Document), the bidder / tenderer has not quoted for the entire requirement as specified.
 - f) The Bidder / Tenderer has not agreed to some essential condition(s) incorporated in the Tender Document.
 - g) The Bidder fails to meet the prescribed Qualification Criteria, if any, as stipulated in the Tender Document.
 - h) The Bidder has not submitted the unconditional acceptance of CSIR-CMERI's Tender terms and conditions in the format prescribed in the BID FORM.
 - i) In case a bid is submitted directly by an Indian agent, a certified copy of the agency agreement between agent and Principal has not been submitted.
- 13.2. Prior to the detailed evaluation, CSIR-CMERI will determine the substantial responsiveness of each bid to the Tender Document. For purposes of this clause, a substantive responsive bid is one, which conforms to all terms and condition of the bidding documents without any deviations, reservations or omissions.
- 13.3. During the course of evaluation, CSIR-CMERI may, at its discretion ask the bidder for clarification of its bid. The request for clarification and the response shall be in writing and no change in prices or substance of the bid shall be sought, offered or permitted.
- 13.4. The bids which are found to be substantially responsive to the terms of this Tender Document shall be evaluated on the basis of final landing cost.

- 13.4.1 For goods manufactured in India.
 - (i) The Price of the goods quoted ex-works including, all taxes already paid.
 - (ii) GST at applicable rates, which will be payable on the goods if the contract is awarded.
 - (iii) Charges for inland transportation, insurance and other local services required for delivering the goods at the desired destination.
 - (iv) The installation, commissioning and training charges including incidental services, if any.

13.4.2 For goods manufactured abroad

- (i) The price of the goods, quoted on Ex-Works (duly packed); FCA (named place of delivery abroad), FOB
- (ii) (named port of shipment), as specified in the bidding document.
- (ii) The charges for insurance and transportation of the goods to the port / place of destination.
- (iii) The agency commission etc., if any.
- (iv) The installation, commissioning and training charges including incidental services, if any.
- 13.5. The comparison between the indigenous and the foreign offers shall be made on FOR destination basis and CIF / CIP basis respectively. However, the CIF / CIP prices quoted by any foreign bidder shall be loaded further as under.
 - (i) Towards customs duty and other statutory levies as per applicable rates.
 - (ii) Towards custom clearance, inland transportation etc. 2% of the CIF / CIP value.
- 13.6. The Purchase Order / Contract shall be awarded to the lowest evaluated responsive (L-1) bidder. L-1.
- 13.7. In case optional items are specified in the tendered specifications, the Purchaser reserves the right to buy or not to buy the optional items. In case the option is exercised to buy the optional items after Bid opening, then the cost of optional items would be included to ascertain the Lowest Evaluated Responsive Bid. In case, the option is exercised not to buy the optional items, then the cost of the optional items would not be included in ascertaining the Lowest Evaluated Responsive Bid.
- 13.8. NOTE: Bidders not quoting the optional items entail the risk of their offer being summarily ignored in the event of the Purchaser deciding to buy the optional items after Bid opening.
- 13.9. The quotations are liable to be rejected if any of the above conditions are not complied with. Conditional Bids / shall not be accepted.

14. SETTLEMENT OF DISPUTES AND ARBITRATION

14.1. The Purchaser and the Supplier shall make every effort to resolve amicably by direct informal negotiation any disagreement or dispute arising between them under or in connection with the Purchase Order / Contract. If, after twenty-one (21) days, the parties have failed to resolve their dispute or difference by such mutual consultation, then either the Purchaser or the Supplier may give notice to the other party of its intention to commence arbitration, as hereinafter provided, as to the matter in dispute, and no arbitration in respect of this matter may be commenced unless such notice is given. Any dispute or difference in respect of which a notice of intention to commence arbitration has been given in accordance with this Clause shall be finally settled by arbitration. Arbitration may be commenced prior to or after delivery of the Goods under the Contract.

- 14.2. Disputes or differences shall be settled in accordance with the Indian Arbitration & Conciliation Act, 1996, the rules there under and any statutory modifications or re-enactments thereof shall apply to the arbitration proceedings. The dispute shall be referred to the Director General, Council of Scientific & Industrial Research and if he is unable or unwilling to act, to the sole arbitration of some other person appointed by him willing to act as such Arbitrator. The award of the arbitrator so appointed shall be final, conclusive and binding on all parties to this order.
- 14.3. In the case of a dispute between the purchaser and a Foreign Supplier, the dispute shall be settled by arbitration in accordance with provision of Clause 14.2. above. But if this is not acceptable to the Supplier then the dispute shall be settled in accordance with provisions of UNCITRAL (United Nations Commission on International Trade Laws).
- 14.4. The venue of the arbitration shall be the place from where the purchase order or contract is issued.
- 14.5. Notwithstanding any reference to arbitration herein,
 - (a) the parties shall continue to perform their respective obligations under the Contract unless they otherwise agree; and
 - (b) the Purchaser shall pay the Supplier any monies due the Supplier.

15. APPLICABLE LAW

15.1. The Contract shall be interpreted in accordance with the laws of the Union of India and all disputes shall be subject to a court of competent jurisdiction in Durgapur, West Bengal, India.

16. OTHERS

16.1. Wherever deemed necessary, Bidder shall be at liberty to question the Bidding Document, Bidding process and rejection of its Bid.

SCHEDULE OF REQUIREMENT

SI. No.	Tender Ref.	Description of Goods and Services	Quantity
1	PUR/330331334/ERTG/08/2018- 19	Solar Inverter PCU, 3Kva,48Vdc	01 [one]
2		Solar Inverter PCU, 10Kva, 3 Phase	01 [one]
3		5Kva,96 VDC, 1-Phase Solar Inverter / PCU	01 [one]

Technical Specifications are detailed at SECTION-4 of this Tender Document.

The Lowest Evaluated Responsive Bidder [L-1 Bidder] shall be determined on overall lowest price [landed price] basis.

Delivery & Installation site / Final Destination	CSIR - Central Mechanical Engineering Research Institute Mahatma Gandhi Avenue, Durgapur 713209 West Bengal
Period of Delivery shall count from	DATE OF AWARD OF CONTRACT / ISSUE OF PURCHASE ORDER
Delivery Period [Goods to be delivered in one lot at final destination – CSIR-CMERI, Durgapur]	21 days
Time frame required for conducting installation, commissioning of the Goods etc. after arrival of the Goods at Final destination	15 days

TECHNICAL SPECIFICATIONS AND OTHER REQUIREMENTS

Specifications of 3kVA, 48VDC, 1-Phase, Solar Inverter/PCU

Output Power Rating	3 kVA			
Type of the Charge	MPPT			
Controller	WIFTI			
PV Array Open Circuit	>150Vdc			
Voltage Maximum				
MPPT Voltage Range		Upper Value Greater than or equal to 120V		
Mili Voltage Range	Lower Value	Less than or equal to 65V		
Maximum PV Input		>=40 A		
current				
Nominal Battery Bank		48 V		
Voltage		70 V		
Grid Input voltage	Range s	hould cover 190V to 260V (Single Phase)		
range	J	, ,		
Battery Charging	Should be	capable of charging both from Solar & Grid		
Battery Charging	Should be User selectable, up to maximum value of 40A			
current				
Priority Setting Modes	inverter			
Output Voltage	Single Phase, 230V±2%			
Nominal Output	50 Hz			
Frequency		00112		
Output waveform Type	Sine Wave			
	Under & Over Voltage protection for Grid Input, AC output, Battery			
	Reverse Polarity protection for PV Array and Battery			
Protections	Protection for Output Overload			
	Protection for Output Short circuit			
		Protection for Over temperature		
	Battery Voltage & Current			
	Battery Charging & Discharging Status			
Display	Array Voltage & Current			
		Grid Voltage & Current		
0	Output Voltage & Current			
Operating Temperature	0-50°C			
Accessories	Remote Monitoring System should be available			
Warranty		Minimum 1 Year (Onsite)		

Specifications of 5kVA, 96 VDC, 1-Phase, Solar Inverter/PCU

Output Power Rating	5 kVA		
Type of the Charge	MPPT		
Controller	MPP1		
PV Array Open Circuit	>240Vdc		
Voltage Maximum	<u>></u> 2+0 vac		
MPPT Voltage Range	Upper Value	Greater than or equal to 180V	
Will I Voltage Kange	Lower Value	Less than or equal to 130V	
Maximum Input		>=40 A	
current			
Nominal Battery Bank		96Vdc	
Voltage		50 v d c	
Grid Input voltage	Range s	hould cover 190V to 260V (Single Phase)	
range	Ü	, , ,	
Battery Charging	Should be	capable of charging both from Solar & Grid	
Battery Charging	Should be I	Jser selectable, up to maximum value of 40A	
current			
Priority Setting Modes	Priority setting of Solar>Battery>Grid should be available in the		
	inverter		
Output Voltage	Single Phase, 230V±2%		
Nominal Output	50 Hz		
Frequency	00 112		
Output waveform Type	Sine Wave		
	Under & Over Voltage protection for Grid Input, AC output, Battery		
	Reverse Polarity protection for PV Array and Battery		
Protections	Protection for Output Overload		
	Protection for Output Short circuit		
		Protection for Over temperature	
	Battery Voltage & Current		
D:1.	Battery Charging & Discharging Status		
Display	Array Voltage & Current		
	Grid Voltage & Current		
On a making manager and a	Output Voltage & Current		
Operating Temperature	0-50°C		
Warranty	Minimum 3 Year Onsite		

Specification of 10KVA, 120VDC, 3-PHASE SOLAR INVERTER/PCU

Charge Controller Type	MPPT	
PV Voltage Minimum	≤170Vdc	
PV Open Circuit Voltage Maximum	≥300Vdc	
Battery	120Vdc, 150AH	
Battery Charger Priority	Solar-Grid	
Output of Inverter	3-Phase 415Vac <u>+</u> 2%, 50Hz <u>+</u> 0.5%	
THD	≤ 5%	
Input Grid	330Vac-450Vac, 50Hz, 3-Phase	
	PV Side: Reverse Polarity, Surge Protection	
	Battery Side: Reverse Polarity, Over/ Under Voltage, Current Limit	
Protection	Grid Side: Over/ under Voltage, Over/ Under Frequency, Surge Protection	
	Load Side: Overloads, Short circuit	
	System Protection: Over Temperature	
Warranty	5 Year onsite warranty for inverter	
Remote Monitoring System/Data Logging facility	yes	

FORMS

1	Bidder's Information Form
2	Bid Form
3	Manufacturer's Authorisation Form
4	Price Schedule Form

BIDDER'S INFORMATION FORM

[The Bidder shall fill in this Form in accordance with the instructions indicated below. No alterations to its format shall be permitted and no substitutions shall be accepted. This should be done of the letter head of the firm]

Date: [insert date (as day, month and year) of Bid Submission] Tender No.: [insert number

from Tender Document]

Page 1 of pages
Bidder's Legal Name [insert Bidder's legal name]
2. In case of JV, legal name of each party: [insert legal name of each party in JV]
3. Bidder's actual or intended Country of Registration: [insert actual or intended Country of Registration]
4. Bidder's Year of Registration: [insert Bidder's year of registration]
5. Bidder's Legal Address in Country of Registration: [insert Bidder's legal address in country of regi stration]
6. Bidder's Authorized Representative Information Name: [insert Authorized Representative's name] Address: [insert Authorized Representative's Address] Telephone/Fax numbers: [insert Authorized Representative's telephone/fax numbers] Email Address: [insert Authorized Representative's email address]
7. Attached are copies of original documents of: [check the box(es) of the attached original documents] Articles of Incorporation or Registration of firm named in 1, above.
Signature of Bidder Name

This Tender Document is to be read as a whole. Details as appearing in all Sections in this Tender Document are intended to be correlative, complementary, and mutually explanatory.

Business Address

BID FORM

(to be submitted on the official Letterhead of the Bidder)

Tender Reference
The Director, CSIR-Central Mechanical Engineering Research Institute Mahatma Gandhi Avenue, Durgapur – 713 209, West Bengal
Sir, Having examined the Tender Document, the receipt of which is hereby duly acknowledged. I/We agree to furnish required supplies/services in conformity with the terms and conditions and other requirements detailed in the said Tender Document at the prices given in the Price Bid on receipt of order for the same.
I/We agree to hold this offer open until and to supply, [install and commission the equipment, wherever applicable] and complete the whole of the work and hand over to the Purchaser within the period of weeks, from the date of receipt of intimation from you regarding acceptance of our e-Bid/receipt of your Purchase Order.
I/We agree to submit the Bank Guarantee [wherever applicable] as specified in the form prescribed by your good self for the due performance of the contract, if our e-Bid is accepted.
I/we understand that you are not bound to accept the lowest or any bid you may receipt
Signature of Bidder With office stamp Name & Address
Telephone No.:
Fax No.:
E-mail ID:
Name & Designation of the Contract Person:

MANUFACTURER'S AUTHORISATION FORM

[The Bidder shall require the Manufacturer to fill in this Form in accordance with the instructions indicated. This letter of authorization should be on the letterhead of the Manufacturer and should be signed by a person with the proper authority to sign documents that are binding on the Manufacturer.]

Date: [insert date (as day, month and year) of Bid Submission] Tender No.: [insert number from NIT]

To: [insert complete name and address of Purchaser]

WHEREAS, We [insert complete name of Manufacturer], who are official Manufacturers of [insert type of Goods manufactured], having factories at [insert full address of Manufacturer's factories], do hereby authorize [insert complete name of Bidder] to submit a bid the purpose of which is to provide the following Goods, manufactured by us [insert name and or brief description of the Goods], and to subsequently negotiate and sign the Contract.

We hereby extend our full guarantee and warranty in accordance with Clause 9 of the Terms and Conditions stipulated in the Tender Document, with respect to the Goods offered by the above firm.

Signed: [insert signature(s) of authorized representative(s) of the Manufacture
Name: [insert complete name(s) of authorized representative(s) of the Manufacture
Title: [insert titl
Duly authorized to sign this Authorization on behalf of: [insert complete name of Bidde
Dated on day of, [insert date of signing

PRICE SCHEDULE FORMS

PRICE SCHEDULE FOR GOODS BEING OFFERED FROM ABROAD

Name	of the Bidder	TENDER No			
SI. No.	Item Description	Item Code/Make	Quantity	Unit Price [mention currency]	Total Amount [mention currency]
	orks Price [duly packed and cle	<u> </u>			
	: Indian Agent's Commission , it x-Works Price [duly packed and	•			
	Inland Freight and other charge	•			
	CA/FOB Price				
Add :	International Freight and Cargo	Insurance			
CIF/C	CIP Kolkata Price				
Note:				- ,	igures) vords)
(a) (b)	Indian agent's name & addres Installation, commissioning &	sstraining charges and	other charg	 es, if any	•
(c) (d)	_	n shall be paid in Ind			ne Exchange Rate prevailing on
(e)	the date of negotiation of docu The cost of optional items in		ted separa	tely.	
	Any other charges/taxes etc			•	g which no requests shall be
		<u> </u>			Signature of Bidder
					Name
					Business Address

PRICE SCHEDULE FOR GOODS BEING OFFERED FROM INDIA

SI. No.	Item Description	Item	Quantity	Unit Price	Total Amount
		Code/Make		[INR]	[INR]
	alue of Goods				
	acking and Forwarding				
	Works Price				
\dd : G					
	ransportation and Insurance ce till CSIR-CMERI, Durgap		I Duran nuri		
Net Pric	e tili CSIR-CIVIERI, Durgapi	ui [1.0.1. CSIR-CIVIERI	Durgapurj		
(c) (nstallation, commissioning & Cost of Optional Items if a ny other charges/taxes et ned for incorporating such	ny shall be indicated	separately indicated by B	idder, failing which	