FORMAT NO. : CEL/FR/MMD/03(01)



CENTRALELECTRONICSLIMITED

(A Public Sector Enterprise) 4, Industrial Area, Saur Urja Marg, Sahibabad–201010(UP)INDIA Tel.No.0091-120-2895144 FaxNo.0091-120-2895148 Email: mmd@celindia.co.in Website: www.celindia.co.in

ENQUIRY/TENDER

Enquiry/ Tender no.:07/8289/2021 Enquiry Date: 27-08-2021 Due Submission date: 03-09-2021, 14:00 Hours Tender open date: 03-09-2021, 15:00 Hours

Dear Sir,

Central Electronics Limited invites online bids from eligible bidders which are valid for a minimum period of 90 days from the date of opening (i.e. 03-09-2021) for following items.

S.	Item No	Item Description	Unit o	f Quantity
No.			Measure	
1	RM-SPV-1113	Mono Crystalline PERC Solar cells, 5 BB, min.	Nos.	2000
		5.67-Watt, size: 158.75 x 158.75 mm ± 0.25		

1. Terms of Price: FOR CEL Sahibabad or FOB Nearest International Airport.

2. Delivery schedule: As per requirements of CEL or up to 15-10-2021.

Note: Offline Quotation should contain the price bid as per Annexure-A, Terms and Conditions Annexure-B, Specification as per Annexure-C, Vendor Data Form as per Annexure-D enquiry Acceptance letter as per Annexure- E, in offline mode as per requisite details on below portal.

Please send your quotation in online mode only.

Regards,

Tarun Jain Asst. Technical Manager Materials Management Division

Annexure-A

Price Bid Format

AS PER BOQ ATTACHED ON <u>www.etenders.gov.in</u>

Note:

This is a Limited tender only for approved vendor and in case, a new vendor wishes to participate in the similar type of tender, they can enrol themselves by submitting their credentials and relevant documents through Vendor Registration Process mentioned on our website at <u>www.celindia.co.in.</u>

The list of eligible bidders is as under:

- 1. Anhui Uzon Photovoltaic Co. Ltd.
- 2. Nanjing First Energy Co. Ltd.
- 3. Nice Sun PV Co. Ltd.
- 4. Zhejiang Sunflower Light Energy Science & Technology Co. Ltd.
- 5. China Foma Group Co. Ltd.
- 6. Yingfa Solar Co. Ltd.
- 7. Lishui Zhanxin Import & Export Co. Ltd.

TERMS AND CONDITIONS

1.	CEL will prefers to get offers directly from the original manufacturers and prefer to deal directly with manufacturer.
2.	Terms of Price: The terms of Price would be FOR CEL, Sahibabad unless specified otherwise in special terms & conditions of Annexure C.
3.	No Deviation from Specifications, Terms & Conditions of the tender is allowed. Quotations having deviation from our specifications, standard terms & conditions would be rejected.
4.	All requirements of export licensing, Govt. permissions or any other statutory clearance from the country of export as per regulations existing in the supplier's country shall be the responsibility of supplier, if required as per the terms of the purchase order.
5.	In a tender either the Indian agent on behalf of the foreign Principal/OEM or foreign Principal/OEM itself can bid but both cannot bid simultaneously in the same tender. If an agent submit 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. Agent quoting on behalf of OEM /Principal shall submit valid authorization certificate along with their offer.
6.	Taxes and duties: The taxes and duties are to be clearly mentioned, if any.
7.	Delivery schedule: As per Special Terms and conditions of Annexure C.
8.	Payment terms:Option 1: Within 45 days from the date of receipt of material in CEL.Option 2: Letter of credit with 45 days usance from the consignment note/LWB/ AWB/BL.LC charges of opener's bank would be borne by opener and LC charges of beneficiary's bank would be borne by the beneficiary in case of foreign bidders.All the LC charges will be borne by beneficiary in case of Indian bidder.A loading of 1% on the total amount will be done for comparison of landing cost to CEL, if option 2 is ticked/accepted by the bidder
9.	 Please tick v either option 1 or option 2. If no option is selected then option 1 would be considered. Inspection: Inspection will be done by CEL representative. CEL shall have free access to the supplier's works during testing and final inspection. Vendor shall inform the purchase not less than one week in advance. All testing arrangements shall be the responsibility of the vendor. CEL reserves the right to inspect the material during manufacturing and/or before dispatch as per specifications and test protocols. Internal inspection report and inspection certificate must accompany the supply. (This clause will be superseded by Inspection clause, if any, in Annexure C).
10.	 Price variation Clause: Price variation will not be permitted and quotations having Price variation clause will be rejected. (This clause will be superseded by Price Variation Clause, if any, in Annexure C).
11.	Price reduction for delayed delivery: In the event of delay in affecting the delivery within agreed period, a reduction in the price shall be levied @ 0.5% of the total order value per week or part thereof subject to maximum of 5% of the total order value.
12.	Validity of offer: The quotation/tender/bid submitted by the bidder/supplier shall be valid for a minimum period of 90 days from date of opening.
13.	Determination of Lowest quoting bidder: The lowest quoting bidder would be decided on the basis of lowest landing cost of items to CEL.
14.	Splitting of tender quantity in two or more bidders: CEL reserve the right to split the quantity and award on two or more vendors as per the production / project requirement. The following norms would be adopted in case of spilt of quantity:
	If the lowest quoting vendor is an approved vendor and the second lowest and third lowest bidders are also approved vendors to CEL 100% of tender quantity would be split amongst the approved vendors

15.	 only. In case of split of quantity in two approved vendors, the same shall be applicable for lowest (L1) & second lowest (L2) in the ratio of 70:30 at the rate & terms applicable to L1 approved vendor, keeping in view the objective that the per unit landed cost to CEL in case of purchase from L1 or L2 approved vendor remains same. In case of split of quantity in three approved vendors 60% quantity would be awarded to L1 approved vendor and balance 40% quantity will be awarded to the L2 approved vendor and L3 approved vendors in the ratio of L2's quantity > L3's quantity subject to acceptance of L1 rate by L2 and L3 vendor. If the L2 vendor does not accept the L1 approved vendor's rate and terms then the quantity will be split between L1 approved vendors and L3 approved vendor. Micro & Small Enterprises quoting price within price band of L1+15 per cent shall also be allowed to supply a portion upto 20% of requirement by bringing down their price to L1 price where L1 is non MSEs (as per "Public Procurement Policy for Micro & Small Enterprises (MSEs) Order 2012"). If price quoted by a MSE is within L1+15% and such MSE is L4 or higher (provided L1, L2 and L3 are not the MSEs) and agrees to the rates & terms quoted/agreed by L1 bidder, then the splitting of quantities may be done as: MSE bidder: 20%, other bidders: 80% of tender quantity as given in above paragraph. NEW / UNAPPROVED VENDOR POLICY:
	 Bidders who are not in the approved vendor list of CEL and are unapproved in CEL would be allowed to participate in open tenders. However, the quotation of such bidders would be evaluated based on the eligibility criteria defined in the tenders. If the bidders satisfies the eligibility criteria and meets the specifications and terms and conditions given in the tender then that bidder may be awarded with purchase order/work order of maximum 10% of the tendered quantity in order to develop that bidder as a vendor to CEL for participation in future tenders subject to the following conditions: - a) The bidder should be either the 1st lowest quoting bidder or 2nd lowest quoting or 3rd lowest quoting bidder. b) The bidder should agree to supply the tendered material at the lowest quoting bidder's rate if the bidder is unapproved and is L2 or L3 bidder.
	 c) The bidder must fill up the vendor registration form and follows the vendor approval procedure. d) The maximum quantity to be divided between the unapproved bidders would be 10% of the total tendered quantity. e) Supply from unapproved bidders who are awardedpurchase/work order would be taken only after approval of samples, wherever applicable. f) In case of Capital items/Projects/EPC/Works Contract or even regular procurement for production where splitting of tender is not possible, purchase/work order would be placed on lowest eligible & technically qualified vendor only. However to develop new vendors, a perpetually open EOI No. C-2(b)/EOI/707/68/2015 is also uploaded on
16.	 our website and CPP with detailed specifications. Any corrections/alterations in the tender/quotation/bid should be duly signed by the bidder. CEL does not take any responsibility for delay in receipt or non-receipt or loss of tender(s).
17.	Earnest money deposit (EMD): EMD amount NIL mentioned in Annexure C (and also in tender notice) must be submitted through demand draft/RTGS/NEFT/TT/SWIFT favoring Central Electronics Limited. The demand draft must be valid for three months and should be payable at New Delhi. The EMD amount must be submitted on or before the due date of opening of quotations. No interest shall be payable on the EMD. The details of CEL's bank account for RTGS/NEFT of EMD amount are as below: Beneficiary Name: Central Electronics Limited Beneficiary Account Number/IBAN: 87761250000014 Beneficiary Bank SWIFT Address/BIC: CNRB0018776 Beneficiary Bank Name: CANARA BANK
	MICR CODE: 113502010 Beneficiary Bank Address: Sahibabad Branch, CEL Complex, Plot No. 1, Site 4, Sahibabad 201010, U.P., INDIA

	The EMD (after deduction of bank charges, if any) of unsuccessful bidder will be refunded within one month of finalization of tender. The earnest money of successful bidder would be converted into security deposit and would be returned (after deduction of bank charges, if any) to the bidder after two months of successful completion of order.
	Exemption from submission of EMD : The following type of bidders are exempted from submission of EMD subject to submission of relevant documents mentioned herein:
	a) Micro & Small Enterprise registered with DIC or KVIC or KVIB or Coir Board or NSIC or DHH or any other body specified by Ministry of Micro, Small and Medium Enterprises, Govt. of India. A copy of valid registration certificate should be submitted with technical bid of quotation.
	b) Approved vendors of CEL or vendors who have supplied stores to CEL in the last 3 years (attach a copy of Purchase Orders received from CEL with the technical bid).
18.	Submission of bid: The tender should be submitted in two bid system. The technical and financial bids should be quoted separately and submitted online. These separate bids envelopes are to be put in online cover. The following documents are required to be Submitted online with duly signed and stamped on all pages:
	Cover 1: (Technical Bid) and inline to Pre-Qualification Criteria (Refer Pg No. 5).
	 a. Bidders who are the approved vendors of CEL and supplied material to Stores, CEL in the last 3 years need to enclose a copy of Purchase Orders received from CEL. b. Earnest Money Deposit demand draft or RTGS receipt or the MSME/ NSIC/DIC registration certificate showing bidder as Micro or Small-scale industry. c. Filled up Format for Submission of Vendor Data d. Tender acceptance letter as per format. e. Compliance of Eligibility Criteria and Technical specifications f. Compliance of Standard Terms and conditions and Special terms and conditions.
	Cover 2: (Financial Bid) and inline to Annexure '2':
	 Price Bid as per as per Annexure 'A' as asked in the relevant columns. Note: The rates should be quoted in figures (typed or printed) and cutting should be avoided. The final amount should be in figures as well as in words. Changing of heading or title or modification to any part of the price bid may render the bid as invalid and such bids are liable to be rejected. Submission of Tender Documents: All tender documents (Technical and Financial) should have to submitted online
19.	Opening of Tenders: Quotations/bids/tenders will be opened on as per Annexure-1 at Materials Management Division, Central Electronics Limited, Sahibabad. Price bid of only those bidders would be opened who qualify the technical bid. The date of price bid opening would be intimated to the eligible bidders (qualified in the technical evaluation) at least 1 day in advance.
20.	CEL reserves the right to reject any or all tenders/quotations/bids received or accept any or all tenders/quotation/bids wholly or in part. Further, CEL reserves the right to order a lesser quantity without assigning any reason(s) thereof. CEL also reserves the right to cancel any order placed on basis of this tender in case of strike, accident or any other unforeseen contingencies causing stoppage of production at CEL or to modify the order without liability for any compensation and or claim of any description.
21.	In case an order placed by the CEL based on the quotation/bid/tender submitted by the bidder/supplier is not executed by the supplier/bidder, CEL may buy the ordered goods from elsewhere and recover the additional amount that CEL may have to spend in procuring the stores plus 10% to cover the overhead & incidental expenses.
22.	Quantity Enhancement: CEL Reserves the right to enhance the quantity of material ordered by up to 50% by amending the purchase order(s) within a year, if any, awarded on the basis of this tender at the rate and terms and conditions mentioned in such purchase order(s).

an be	eplacement of Rejected Material: Any material supplied against order place on basis of this tender d found to be defective on inspection or differing from approved samples or make or specifications wil replaced by the supplier free of cost or full refund made for the amount paid by Central Electronics nited including freight and insurance and other incidental charges at our discretion.							
24. Te	Termination for Default:							
	CEL may, without prejudice to any other remedy for breach of contract, by written notice of default sent to the Supplier, terminate the Contract in whole or in part:							
9.1	If the Supplier fails to deliver any or all of the Goods within the period(s) specified in the Contract or within any extension thereof granted by the Purchaser; or							
9.2	If the Supplier fails to perform any other obligation(s) under the Contract.							
9.3	9.3 If the supplier, in the judgment of the purchaser, has engaged in corrupt or fraudulent practices i competing for or in executing the contract.							
Fo	or the purpose of this clause:							
	"Corrupt practice" means the offering, giving, receiving, or soliciting of anything of value to influence the action of a public official in the procurement process or in contract execution. "fraudulent practice" means a misrepresentation of facts in order to influence a procurement process or the execution or a contract to the detriment of the borrower, 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 the borrower of the benefits of free and open competition. In the event the Purchaser terminates the Contract in whole or in part, the Purchaser may procure, upon such terms and in such manner as it deems appropriate, Goods or services similar to those undelivered, and the Supplier shall be liable to the Purchaser for any excess costs for such similar Goods or services. However, the Supplier shall continue the performance of the Contract to the extent not terminated. The contractor/bidder shall not display the photographs & content of the work and also will not take advantage through publicity of the work without written permission of CEL. Noncompliance to this may result in the blacklisted of firm.							
of Ea Au no At op of exi Pa op a. ag b. c. fu for	Prce Majeure: Neither party shall bear responsibility for the complete or partial non-performance of an its obligations, if the non-performance results from such Force Majeure circumstances i.e. Flood, Fire. arth Quake and other acts of God as well as War, Military Operation, blockade, Act or Actions of State thorities that have arisen after signing of the present contract. Party invoking this clause shall serve tice of seven days along with the proof of occurrence of the force majeure event to the opposite party. the time of cessation of such force majeure event a notice of the same shall also be served to the posite party. such circumstances, upon a written approval of CEL, the time stipulated for the performance of an ligation under the present contract will stand extended correspondingly for the period of time of action these circumstances and their consequences. However, any such extension shall be given only if tension is granted by the ultimate buyer/ user. urties at all times take reasonable steps within their respective power's ad consistent with good eration practices (but without incurring unreasonable additional costs) to: Prevent Force Majeure Events affecting the performance of the Company's obligations under this reement; Mitigate the affect of any Force Majeure Event; and Comply with its obligations under this agreement. urther if the period of Force Majeure event extends beyond three months* the parties may consider the reclosure of the agreement.							

26.	Arbitration: Arbitration for Indigenous bidders:
	All the disputes, difference controversies/ difference of opinions, breach and violation arising from or related to this agreement between the parties, then the same shall be resolved by mutual discussion /reconciliations in good faith. If disputes, difference controversies /difference of opinions, breach and violation arising from or related to this agreement cannot be resolved within 30 days of commencement of reconciliations / discussions then the matter shall be referred to the sole arbitrator, nominated by CMD CEL, for this purpose and his/her decision shall be final binding on both the parties. The cost of arbitration, if any shall be shared equally between the parties.
	The arbitration proceedings shall be conducted by the Arbitral Tribunal in accordance with the provisions of the Arbitration & Conciliation Act, 1996 as amended from time to time. The place of arbitration shall be Delhi and language of such arbitration proceedings shall be in English.
	All disputes relating to this agreement shall be subject to jurisdiction of the courts at Delhi only.
	Arbitration for Foreign bidders: All the disputes, difference controversies /difference of opinions, breach and violation arising from or related to this agreement between the parties, then the same shall be resolved by mutual discussion/ reconciliation in good faith. If disputes, difference controversies/ difference of opinions, breach and violation arising from or related to this agreement cannot be resolved within 30 days of commencement of reconciliations / discussions then the matter shall be referred to the Delhi High Court International Arbitration Centre, New Delhi. The cost of arbitration shall be shared equally between the parties.
	The arbitration proceedings shall be conducted as per rules and procedures of Delhi High Court International Arbitration Centre. The placed of arbitration shall be Delhi and language of such ar2bitration proceedings shall be in English.
	All disputes relating to this agreement shall be subject to jurisdiction of the courts at Delhi only.
	All the terms and conditions mentioned in the tender must be accepted otherwise bid may liable to rejected.
27.	In case of any ambiguity in the terms and conditions mentioned here-above and Annexure-A of the tender, clause defined in Annexure-A and Annexure C shall supersede.
28.	CEL reserves the right to ban the business dealings of the supplier/ bidder as per CEL's "Policy on banning business dealings" available on CEL website (www.celindia.co.in).
29.	Interse Ministries and its Departments/ Subordinate Offices/ Attached Offices and Autonomous and Statutory Bodies: In case the bidder is a Ministry or its Departments/ Subordinate Offices/ Attached Offices and Autonomous and Statutory Body, then any dispute arising out of this tender, between such bidder and CEL, shall be resolved as per Administrative Mechanism for Resolution of Disputes (AMRD) in accordance with OM No. 334774/DoLA/AMRD/2019 dated 30-03-2021 issued by Ministry of Law & Justice
30.	Restrictions under rule 144 (xi) on General Financial Rules (GFRs), 2017 order F. No. 6/18/2019-PPD dated 23rd July 2020 and their subsequent amendments/ corrigendum/ memorandums, etc. shall be applicable.
	 Any a country which shares a land border with India will be eligible to bid in this tender only if the bidder is registered with the Competent Authority. "Bidder" (including the term 'tenderer', 'consultant' or 'service provider' in certain contexts) means any person or firm or company, including any member of a consortium or joint venture (that is an association of several persons, or firms or companies), every

		artificial juridical person not falling in any of the descriptions of bidders stated
		hereinbefore, including any agency branch or office controlled by such person,
		participating in a procurement process.
	iii.	"Bidder from a country which shares a land border with India" for the purpose of this
		Order means:
		a. An entity incorporated, established or registered in such a country; or
		b. A subsidiary of an entity incorporated, established or registered in such a country; or
		c. An entity substantially controlled through entities incorporated, established or
		registered in such a country; or
		d. An entity whose beneficial owner is situated in such a country; or
		e. An Indian (or other) agent of such an entity; or
		f. A natural person who is a citizen of such a country; or
		g. A consortium or joint venture where any member of the consortium or joint
		venture falls under any of the above
	iv.	The beneficial owner for the purpose of (iii) above will be as under:
		a company or Limited Liability Partnership, the beneficial owner is the natural person(s), who,
		acting alone or together, or through one or more juridical person, has a controlling ownership r who exercises control through other means.
31.		curement (Preference to Make In India), Order 2017 dt. 28-05-2018 and DPE order No.
••••		2017-Fin-(Part-I) dt. 30-09-2020 and their subsequent amendments/ corrigendum/
		dums, etc. shall be applicable
32.		ce of Bid Security Declaration as per Annexure-G is must for all the bidders. Please send us
		pliance of Annexure-G along with the technical bid.
	/	

Annexure 'C'

CENTRAL ELECTRONICS LIMITED SOLAR PHOTOVOLTAIC PRODUCTION TECHNICAL SPECIFICATION TECHNICAL SPECIFICATION <th>Annexure-I Annexure-I ann x 158.75 mm ± 0.25 mm -20µm. (applicable for only pseudo square type cells) Nitride (SiN) Anti-reflection coating by specification: front side) and pads (on front and back side) and breadth of cell from all the cell sides. o m 0.8mm ± 0.2mm. 1.5mm+0.4mm-0.3mm and Aluminum BSF. & Back).</th> <th>CENTRAL ELECTRONICS LIMITED SOLAR PHOTOVOLTAIC PRODUCTION TECHNICAL SPECIFICATION TTEM: MONO CRYSTALLINE PERC SOLAR CELL 5 BUS BAR Annexure-I mension : 158.75 ± 0.25 mm x 158.75 mm ± 0.25 mm ell Wattage : ≥ 5.67 Wp ell efficiency : ≥ 22.5% nickness : 190µm +30µm -20µm. iameter/Diagonal : 210 ± 0.5mm (applicable for only pseudo square type cells) ront side : Uniform Silicon Nitride (SiN) Anti-reflection coating Il printed fingers should meet the below specification: 7.1 Shift in printing of the fingers (on front side) and pads (on front and back side) ≤ 0.25 mm along the whole length and breadth of cell from all the cell sides. 7.2 Radial shift in printed fingers: ≤ 1° ow : ≤ 1.5 mm letallization 9.1 Front – Silver bus bar width of 0.8mm ± 0.2mm. 9.2 Back – Silver bus bar width of 1.5mm+0.4mm-0.3mm and Aluminum BSF.</th> <th></th> <th></th> <th>07/8289/202</th> <th>1dt.23-08-2021</th> <th></th>	Annexure-I Annexure-I ann x 158.75 mm ± 0.25 mm -20µm. (applicable for only pseudo square type cells) Nitride (SiN) Anti-reflection coating by specification: front side) and pads (on front and back side) and breadth of cell from all the cell sides. o m 0.8mm ± 0.2mm. 1.5mm+0.4mm-0.3mm and Aluminum BSF. & Back).	CENTRAL ELECTRONICS LIMITED SOLAR PHOTOVOLTAIC PRODUCTION TECHNICAL SPECIFICATION TTEM: MONO CRYSTALLINE PERC SOLAR CELL 5 BUS BAR Annexure-I mension : 158.75 ± 0.25 mm x 158.75 mm ± 0.25 mm ell Wattage : ≥ 5.67 Wp ell efficiency : ≥ 22.5% nickness : 190µm +30µm -20µm. iameter/Diagonal : 210 ± 0.5mm (applicable for only pseudo square type cells) ront side : Uniform Silicon Nitride (SiN) Anti-reflection coating Il printed fingers should meet the below specification: 7.1 Shift in printing of the fingers (on front side) and pads (on front and back side) ≤ 0.25 mm along the whole length and breadth of cell from all the cell sides. 7.2 Radial shift in printed fingers: ≤ 1° ow : ≤ 1.5 mm letallization 9.1 Front – Silver bus bar width of 0.8mm ± 0.2mm. 9.2 Back – Silver bus bar width of 1.5mm+0.4mm-0.3mm and Aluminum BSF.			07/8289/202	1dt.23-08-2021	
SOLAR PHOTOVOLTAIC PRODUCTION TECHNICAL SPECIFICATIONTECHNICAL SPECIFICATIONITEM: MONO CRYSTALLINE PERC SOLAR CELL 5 BUS BARAnnexAnnexDimension : 158.75 \pm 0.25 mm x 158.75 mm \pm 0.25 mm. Cell Wattage : \geq 5.67 Wp. Cell Wattage : \geq 22.5%. Thickness : 190µm +30µm -20µm Diameter/Diagonal : 210 \pm 0.5mm (applicable for only pseudo square type cells). Front side : Uniform Silicon Nitride (SiN) Anti-reflection coating. All printed fingers should meet the below specification:7.1 Shift in printing of the fingers (on front side) and pads (on front and back side) \leq 0.25 mm along the whole length and breadth of cell from all the cell sides.7.2 Radial shift in printed fingers: \leq 1°8. Bow	Annexure-I Annexure-I ann x 158.75 mm ± 0.25 mm -20µm. (applicable for only pseudo square type cells) Nitride (SiN) Anti-reflection coating by specification: front side) and pads (on front and back side) and breadth of cell from all the cell sides. o m 0.8mm ± 0.2mm. 1.5mm+0.4mm-0.3mm and Aluminum BSF. & Back).	SOLAR PHOTOVOLALC PRODUCTION TECHNICAL SPECIFICATION TTEM: MONO CRYSTALLINE PERC SOLAR CELL 5 BUS BAR Annexure-I mension : 158.75 ± 0.25 mm × 158.75 mm ± 0.25 mm ell Vattage : ≥ 5.67 Wp ell efficiency : ≥ 22.5% nickness : 190µm +30µm -20µm. iameter/Diagonal : 210 ± 0.5mm (applicable for only pseudo square type cells) iameter/Diagonal : 210 ± 0.5mm (applicable for only pseudo square type cells) ornt side : Uniform Silicon Nitride (SiN) Anti-reflection coating I printed fingers should meet the below specification: 7.1 Shift in printing of the fingers (on front side) and pads (on front and back side) ≤ 0.25 mm along the whole length and breadth of cell from all the cell sides. 7.2 Radial shift in printed fingers: ≤ 1° ow : ≤ 1.5 mm teallization 9.1 Front – Silver bus bar width of 0.8mm ± 0.2mm. 9.2 Back – Silver bus bar width of 1.5mm+0.4mm-0.3mm and Aluminum BSF. 9.3 Number of bus bars five (Front & Back). All cells should be free from the following defects: 10.1 Chipping - V shape, edge chip, corner chips. 10.2 Micro cracks, pin holes and other cracks. 10.3 Discontinuity of metal printing lines. 10.4 Colour variation between the cells. The vendor shall attach photographs and drawings of front and back side of the solar	021/GM	SPVP			
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		10.4 Colour variation between the cells. The vendor shall attach photographs and drawings of front and back side of the solar cell, clearly indicating all the dimensions meeting the requirements of sl. no. 9 given					
	nes.	cell, clearly indicating all the dimensions meeting the requirements of sl. no. 9 given					
		cell, clearly indicating all the dimensions meeting the requirements of sl. no. 9 given					
1. The vendor shall attach photographs and drawings of front and back side of the sol		cell, clearly indicating all the dimensions meeting the requirements of sl. no. 9 given	1. Th	e vendor shall	attach photographs and	drawings of front and	back side of the solar
cell, clearly indicating all the dimensions meeting the requirements of sl. no. 9 given	ells.	above.	cel	clearly indica	ting all the dimensions m	eeting the requireme	nts of sl. no. 9 given
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		10.4 Colour variation between the cells. The vendor shall attach photographs and drawings of front and back side of the solar cell, clearly indicating all the dimensions meeting the requirements of sl. no. 9 given					
10.4 Colour variation between the cells.		cell, clearly indicating all the dimensions meeting the requirements of sl. no. 9 given	10.	Colour varia	tion between the cells.		
		cell, clearly indicating all the dimensions meeting the requirements of sl. no. 9 given					
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	ells. s and drawings of front and back side of the solar ions meeting the requirements of sl. no. 9 given	PREPARED BY CHECKED BY APPROVED BY ITEM : SOLAR CELL					ITEM NO: 1
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CENTRAL ELECTRONICS LIMITED SOLAR PHOTOVOLTAIC PRODUCTION TECHNICAL SPECIFICATION ITEM: MONO CRYSTALLINE PERC SOLAR CELL 5 BUS BAR

12.Packing Conditions:

12.1 Packing should be in lots of 100 cells or as per the standard size of the vendors. Cells shall be packed tightly with heat shrinkable sleeves or polythene/ polypropylene sachets. Sachets shall be packed in foam/carton boxes with soft pads on both ends or in polyethylene foam packing to absorb transit handling shocks. The final packing of the individual carton boxes shall be in an outer sealed plywood box.

- 12.2 Manufacturer name, Cell type, lot number, wattage/efficiency, quantity, month of manufacture to be identified on each primary packing. Total quantity of cells in each carton and plywood box to be displayed.
- 12.3 CEL Purchase Order (PO) Number and item description to be mentioned on the outer sealed plywood boxes.

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CEL)			WOLTAIC PRODUCTION	ON
		ITEM: MONO CRYSTALL		L 5 BUS BAR
				Annexure I
		TEST PR	OTOCOL	Annexure i
(A) E	or opproved	vender		
(A) <u>F</u>	or approved	vendor.		
		endors shall submit copy irameters mentioned in A oplies.		
		s will be checked for all th le basis as per CELs qua		.1 to 10) of Annexure I
	3. Accepta	nce criteria for cell lots:		
	a. I	f defective cells (not as p	er specifications stated	d in SI. no. 1 to 10 of
		Annexure I) are less than cost.	3%, all such cells sha	Il be replaced free of
		f defective cells (not as p	er specifications state	d in SI, no, 1 to 10 of
		Annexure I) are more than		
		n case lot is accepted du		
	1	are found defective, those	cells shall be replace	d by the supplier.
(B) F	or unapprov	ed vendor:		
(-) 1	or unuppror			
		or shall supply sample lot	of minimum 200 cells	meeting the specification
		d in Annexure I.		
		le cells will be checked at	CEL as per the test p	rotocol mentioned above
	in (A). 3. If the sam	ple lot is approved by the	production and QC de	epartment, then the
		I become the approved s		
	4. Subseque	ent to approval, purchase	department shall place	e order for the balance
		f cells in compliance with		
		supplied against purchase	e order shall be tested	as per the test protocol
	mentioned	d above in (A).	*	
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CENTRAL ELECTRONICS LIMITED
SOLAR PHOTOVOLTAIC PRODUCTION
TECHNICAL SPECIFICATION
ITEM: MONO CRYSTALLINE PERC SOLAR CELL 5 BUS BAR

SI.No (as mentioned in Annexure)	Tender specification	Supplier compliance (Kindly fill YES/NO only)	Annexure-III Deviated specification offered by vendor (In case compliance in column 3 is marked as NO)
Annexure-I (page 1 of 7)			
1	Dimension: 158.75mm ± 0.25mm x 158.75 mm ± 0.25 mm	-	
2	Cell Wattage: ≥ 5.67Wp	-	
3	Cell efficiency: ≥ 22.5%		
4	Cell Thickness: 190µm+30µm-20µm		
5	Diameter /Diagonal: 210± 0.5 mm (for only pseudo square type cells)		
6	Front side: Uniform silicon Nitrid (SiN) Anti-reflection coating		
7.1	Shift in printing of the fingers along the whole length of cell : \leq 0.25 mm for all the cell sides		2
7.2	Radial shift in printed fingers : ≤ 1°		
8	Bow: ≤ 1.5 mm		1.000
9.1	All five front bus bars should have a width 0.8mm± 0.2mm.	-	
9.2	All five back bus bars should have a width 1.5mm+ 0.4mm-0.3mm.		
10.0	All cells should be free from the following defects:		
10.1	Chipping -V shape, edge chip, corner chips.		
10.2	Micro cracks, pin holes and other cracks.		
10.3	Discontinuity of metal printing lines.		
10.4	Colour variation between the cells.		
Annexure II	(page 3 of 7)		
3a	If defective cells are less than 3%, all such cells shall be replaced, free of cost.		
3b	If defective cells are more than 3% then the whole lot shall be rejected.		
3c	In case lot is accepted during sample check, but during production cells are found defective, those cells shall be replaced by the supplier.		

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CENTRAL ELECTRONICS LIMITED SOLAR PHOTOVOLTAIC PRODUCTION TECHNICAL SPECIFICATION ITEM: MONO CRYSTALLINE PERC SOLAR CELL 5 BUS BAR

Annexure-IV

TEST REPORT

PRODUCT	SOLAR CELL
P. O. NO. / DATED	
QUANTITY	

S. No.	DESCRIPTION	SPECIFIED VALUE	OBSERVED VALUE
1	CELL SIZE	158.75 MM± 0.25 MM X 158.75 MM ± 0.25 MM	
2	CELL WATTAGE	≥ 5.67WP	
3	CELL EFFICIENCY	≥ 22.5%	
4	THICKNESS	190µм+30µм -20µм	
5	DIAMETER/DIAGONAL	210±0.5 MM (FOR ONLY PSEUDO SQUARE TYPE CELLS)	
6	ARC COATING	UNIFORM OK	
7	PRINT SHIFT FRONT	≤0.25 MM	
8	PRINT SHIFT FRONT TO BACK	≤0.25 MM	
9	BOW	≤1.5 MM	
10	FRONT BUS BAR	0.8MM ± 0.2 MM	
11	BACK BUS BAR	1.5мм+0.4мм-0.3мм	
12	CHIPPING V SHAPE, EDGE CHIP, CORNER CHIP,	NIL	
	MICRO CRACKS, PINHOLES, CRACKS	NIL	
	METAL PRINT LINE DISCONTINUITY	NIL	
13	PASTE SPOT	NIL	
14	TEMPERATURE COEFFICIENTS (VOLTAGE,CURRENT AND POWER)	AS PER VENDOR SPECS	

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Annexure 'D'

Format for submission of Vendor Data

1.	Name of vendor	
2.	Registered Address	
	Postal Code	Company's Year of Establishment
	Company's nature of business	Company's Legal Status
	Registration No.	Phone:
	Fax No.	Website:
	Name of Proprietor/ CEO/Chairman	
	Phone/Mobile No.	
	Email id	
3.	Factory Address	
	Phone No.	
	Fax No.	
	Email id	
4.	Delhi/NCR Address (if any)	
	Phone No.	
	Fax No.	
	Email id	
5.	Correspondence Address	
6.	Name of Contact Person for this tender/ enquiry	
	Designation	
	Date of Birth	
	Phone/Mobile no.	
	Fax No.	
	Email id	
7.0	Sales Tax related inform	ation
7.1	GSTN No	
7.2	Annual Turnover	
7.3	Sales Tax Exemption No. (if any)	
8.0	Income Tax related info	mation

8.1	PAN No.		
8.2	PAN reference no. (in case PAN applied for)		
8.3	PAN Status (in case PAN applied for)		
9.	Registration No. with Directorate of Industries		
10.	SSI/MSE Reg. No. (if Small Scale Industrial Unit)	(Please enclose certificate from DIC/NSIC along with Certificate from registered CA with value of plant and machinery)	
11.	Is MSE/SSI is ST/SC?	Yes / No (please enclose relevant certificate as proof)	
12.0	Bank related informatio	rmation	
12.1	Bank name		
12.2	Branch name		
12.3	Bank address		
12.4	Bank phone no.		
12.5	Bank fax no.		
12.6	Bank MICR Code (9 digit)		
12.7	RTGS-IFC Code		
12.8	Account type		
12.9	Account no.		
12.10	Swift Code		

Correspondence with respect to this tender/ enquiry may be address to Mr/Ms at email id and mobile no.....

I/We accept that CEL may send SMS and/or email regarding this tender/ enquiry/any other tender/ enquiry, award of contract, purchase order(s) and/or any other information on any/all mobile nos. mentioned in this vendor data sheet.

I/We certify that the information given herein is correct to the best of my knowledge and belief.

Signature of Proprietor/CEO/Chairman/Authorized Person

Seal of the company/concern

Annexure 'E'

ENQUIRY ACCEPTANCE LETTER

(To be given on Company Letter Head)

Date:

To, The General Manager Materials Management Division Central Electronics Limited 4-Industrial Area Sahibabad -201010, (U.P) India

Indent No:

Name of Item: _____

Subject: Acceptance of Terms and conditions of Tender/ enquiry / Enquiry.

Dear Sir,

1. I/ We have downloaded / obtained the tender/ enquiry document(s) for the above mentioned 'Tender/ enquiry/Work/Enquiry ' from the web site(s) / mail namely:

as per your advertisement, given in the above mentioned website(s) / mail .

2. I / We hereby certify that I / we have read the entire terms and conditions of the tender/ enquiry documents from Page No. to (including all documents like annexure(s), schedule(s), etc .,), which form part of the contract agreement and I / we shall abide hereby by the terms / conditions / clauses contained therein.

3. The corrigendum(s) issued from time to time by your department/ organization too have also been taken into consideration, while submitting this acceptance letter.

4. I / We hereby unconditionally accept the tender/ enquiry conditions of above mentioned tender/ enquiry document(s) /corrigendum(s) in its totality / entirety.

5. In case any provisions of this tender/ enquiry are found violated , then your department/ organization shall without prejudice to any other right or remedy be at liberty to reject this tender/ enquiry/bid including the forfeiture of the full said earnest money deposit absolutely.

Yours Faithfully,

(Signature of the Bidder, with Official Seal)