

# Chhattisgarh State Renewable Energy Development Agency (CREDA)

(Dept. of Energy, Govt. of Chhattisgarh)

Near Energy Education Park, Village Fundhar VIP (Air Port Road) Raipur 492015 (C.G.) Ph.: 91-8370008658, 0771-7112461

E-mail: creda.om@gmail.com, Website: www.creda.co.in

Tender No.23883/CREDA/SPV-OM / Battery Bank/PCU/Solar Module Dated 08/01/2019

**CREDA invites Rates** 

(A) For Supply of Batteries (LMLA) of different capacities for Solar Application & Rates for Buy-back of Scrap Batteries anywhere in the state of Chhattisgarh", as per MNRE Specification,

(B) For Supply of Power Conditioning Unit (PCU), for Solar Application anywhere in the State of Chhattisgarh" and

(C) For Supply of Poly crystalline Solar modules for Solar Applications as per MNRE Specification/IEC Guidelines, of various capacities with 10 years onsite warranty, anywhere in the Chhattisgarh''

	Important Events and their schedule for this tenders are as follows-						
SN	Particulars	Date	Time	Place			
1	Pre bid Meeting for A,B,C	23.01.2019	11:00 AM	At CREDA HO , Raipur			
2	Submission of Tender Document, Technical Bid, and Price Bid	31.01.2019	Till 11:30 AM	At the Office of Executive Engineer (O&M) CREDA HO Raipur			
3	Examination of Technical Bid * For (A) * For (B) * For (C)	31.01.2019	From 12:00 PM From 01:00PM From 02.00 PM	At H.O. CREDA or Bio- Diesel Conference Hall,			
4	Opening of Price/Financial Bid * For (A) * For (B) * For (C)	31.01.2019	From 03:30 PM From 04:00 PM From 04:30 PM	Raipur			

# Tender Document Cost for Battery or PCU Categories ₹5,000.00 Each Tender Document Cost for Module Categories ₹2,000.00

Document can also be download from our website **www.creda.co.in** with the cost of tender as mentioned in NIT, which shall have to be deposited along with the tender document

<b>CONTENTS</b>
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No.	Description
	<b>PART – I : TECHNICAL BID</b>
1.	Notice Inviting Tender
2.	Eligibility Criteria
3.	Check List
4.	Undertaking of the tenderer
5.	Instruction for tenderer
6.	General condition of contract
7.	Scope of work
8.	Schedule – I
i)	Part-A –General Information
ii)	Part- B – Commercial Information
iii)	Part –C – Technical Information
9.	Schedule – II – Technical Deviations
10.	Schedule – III – Past Experience
	PART – II : FINANCIAL BID
1.	Schedule of Rates – Price Bid

#### CHHATTISGARH STATE RENEWABLE ENERGY DEVELOPMENT AGENCY



Head Office, CREDA, Near Energy Education Park, VIP Road Raipur.(C.G). Website: www.creda.co.in

No. 23883 /CREDA/O&M/Tender/2019

Date :-08/ 01 /2019

# **NOTICE INVITING TENDER**

CREDA invites sealed tenders from the manufactures (i.e. OEM) or their only one dealer/distributer for, "Standardization of rates for Supply of lead acid Batteries for Solar Application & Rates for Buy-back of Scrap Batteries, Power Conditioning Unit (PCU) for Solar application & "For Supply of Poly crystalline Solar modules of different capacities for solar Application as per MNRE Specification/IEC Approved anywhere in the state of Chhattisgarh", as per following:

S. No.		Description of Items	Approximate Qty. Of different capacity in Nos.	Approximate value of purchase in (Crores)	EMD (In Rs.)	Cost of Tender Document
1	A	Supply of Batteries (LMLA) of different capacities for Solar Application anywhere in the State of Chhattisgarh.	8000	5.00 Crores	5,00,000/-	5,000/-
2	1	Buy-back of Scrap Batteries (Used Batteries), anywhere in the state of Chhattisgarh.	8000		2,00,000	2,000
3	В	Supply of Power Conditioning Unit (PCU), for Solar Application anywhere in the State of Chhattisgarh.		5.00 Crores	5,00,000/-	5,000/-
4	С	Tender for Supply of Poly crystalline Solar modules of different capacities for solar Application as per MNRE Specification/IEC anywhere in the State of Chhattisgarh.	3500 Nos/500 KW	2.00 Crore	2,00,000/-	2,000/-

- Scheduled date for **Pre-Bid meeting** is **23.01.2019** at **11:00 A.M.** at CREDA, H.O., or CBDA Conference Hall, Near Energy Education Park, Biodiesel Plant, VIP Road Raipur (C.G.).
- The sealed tender documents shall have to be submitted on **31.01.2019** at **11:30** AM at CREDA, H.O. O&M Cell, VIP Road, Near Energy Education Park, Raipur and thereafter the Technical bid will be opened on the same day after 12:00 PM onward in the office of H.O., CREDA, or CBDA Conference Hall, Near Energy Education Park, Biodiesel Plant, Raipur. (C.G).
- The Tender should be **downloaded from CREDA website** (www.creda.co.in) and the tenderer should enclose a demand draft of Tender fee along with EMD separate **in favour of,CREDA**, **Raipur**).

Financial bid may be opened only after scrutiny of technical bid on the same day or may be on other day, as per the decision of Tender Committee. Parties interested can avail the tender for the above description according to the eligibility criteria.

CREDA reserves all rights to accept/reject any or all tenders in full/part without assigning any reasons. Any amendments in the tender shall only be notified through the website of CREDA.

(Sanjeev Jain) Chief Engineer

# **<u>2. ELIGIBILITY CRITERIA</u>**

# A. For Supply of Batteries (LMLA) of different capacities for Solar Application & Buy-back of Scrap Batteries

S. No.	Particular	Criteria	Supportive Document to be provided by Bidder
01	Supply of Batteries (Lead Acid)of different capacities for Solar Application (for solar power plant)	<ol> <li>The Bidder should be a manufacturer of lead acid Batteries (LMLA) or its authorised dealer/ distributer. Only one dealer/distributer of any manufacturer will be allowed to participate in tender</li> <li>The Bidder should have valid test certificate from MNRE approved test lab., for the Batteries and the make of Batteries/OEM shall essentially empanelled in MNRE</li> <li>The Bidder should be registered as Vender for year 2018-19 in CREDA or should get registered within one month of obtaining supply order failing which the order may be cancelled without prior notice.</li> <li>The bidder should have average annual turn over in 2015-16 ,2016-17 and 2017-18 of minimum Rs.15.00 crores.</li> <li>The bidder should have a positive net worth In FY 2015-16 ,2016-17 and 2017-18</li> </ol>	<ul> <li>01. The bidder, if a manufacturer of lead acid batteries should submit OEM certificate issued by appropriate government authority. If the bidder is an authorised dealer/ distributer, he should submit manufacturer's authorisation certificate to participate in the bid.</li> <li>02. CA certified copies of balance sheets for the financial years 2015-16, 2016-17 and 2017-18.</li> <li>03. Self attested copy of test certificate from MNRE authorized lab or any govt. test Lab of the led acid batteries offered in the bid.</li> <li>04. The bidder who are existing registered System Integrator in CREDA shall submit performance certificate along with tender document.</li> </ul>
02	Buy-Back/ Scarp Battery used in Solar Power Plant	For buy-back of used/scrap batteries:- The Bidder should have valid license / authorisation from Central Pollution Control Board, Govt. Of India/ Pollution Control Board of any state. Preferable battery suppliers will be given priority for buy back of scrap batteries.	Copy of valid license / authorisation from Central Pollution Control Board, Govt. Of India/ Pollution Control Board of any State .

## B. Supply of Power Conditioning Unit (PCU), for Solar Application.

S. No.	Particular	Criteria	Supportive Document to be provided by Bidder
01	Supply of Power Conditioning Unit (PCU) for Solar Application – for Solar Power Plant	<ol> <li>The Bidder should be registered as Vendor in CREDA for the year 2018-19.</li> <li>The bidder should be reputed manufacturer of Power Conditioning Unit (PCU), Charge Controller for Solar Application for solar power plant.</li> <li>The manufacturers should have minimum Rs. 5.00 crores average annual turnover in last three years.</li> <li>The bidder should have a Service Centre in Chhattisgarh.</li> <li>The bidder should have minimum 05 years experience in PCU/Charge Controller manufacturing and shall have supplied PCUs in Chhattisgarh either directly to CREDA or it System Integrators</li> <li>The PCU/Charge Controller should have valid test certified of MNRE approved test lab and shall be listed in MNRE as PCU manufacturer.</li> </ol>	<ol> <li>Up-to- date Sales Tax (S.T.) / GST clearance certificate, EPF no. (If applicable), and GST registration certificate.</li> <li>The bidder shall submit along with bid document Audited Balance Sheets and Profit &amp; Loss Account for the last three consecutive financial years.</li> <li>The bidder should submit the Service Tax and income Tax registration number (PAN), should summit the income tax return of latest financial year.</li> <li>The bidder who are existing registered System Integrator in CREDA shall submit performance certificate along with tender document.</li> </ol>

# C. Supply of Poly crystalline Solar modules of different capacities for solar Application.

S. No.	Particular	Criteria	Supportive Document to be provided by Bidder
01	Tender for Supply of Poly crystalline Solar modules for solar Application as per MNRE Specification/IEC Approved anywhere in the State of Chhattisgarh.	<ol> <li>The Bidder should be registered Vender for year 2018-19 in CREDA.(If not already registered than he should register himself within one month of award failing which the award may be cancelled without any notice )</li> <li>The Bidder should be a Module manufacturer implement with MNRE.</li> <li>The bidder should have valid test certificate from MNRE approved test lab/IEC Certified test labs of modules offered in the bid.</li> <li>The bidder should have minimum annual average turnover in FY 2015-16, 2016-17 &amp; 2017-18 of Rs.10.00 Crores.</li> <li>The bidder should have positive Net worth at the end of FY 2015-16, 2016-17 &amp; 2017-18.</li> <li>The Bidder should have minimum experience of supply of 300 kw of solar PV Modules to govt./ govt. Agencies/ govt. Undertakings in 2016-17 ,2017-18 and 2018-19 till date of issue of NIT and If the bidder's performance against CREDA's supply orders is not satisfactory during last years than CREDA has right to disqualify the bidder.</li> </ol>	<ol> <li>CA certified copies of balance sheets for the financial years 2015-16, 2016-17, and 2017-18.</li> <li>02.Performance certificate issued by govt./ govt. Agencies/ govt. Undertakings regarding supply of Solar PV modules in year 2015-16, 2016-17 and 2017-18.</li> <li>03. Self attested copy of Valid test certificate from MNRE approved test lab or IEC certified test labs of modules being offered in bid.</li> <li>04. The bidder who are existing registered System Integrator in CREDA shall submit performance certificate along with tender document.</li> </ol>

# **3.Check List**

# A. For Supply of Batteries (LMLA) of different capacities for Solar Application & Buy-back of Scrap Batteries

To ensure that your tender submitted to CREDA is complete in all respects, please go through the following checklist & tick mark / fill details in the box below:-

S No	Description	Attached	Not Attached
1	Earnest Money		
2	Tender Document Fee (proof of submission)		
3	The original tender document duly signed & sealed on each page, as a confirmation of acceptance of Terms & Conditions (T&C)		
4	A Copy of registration as manufacturer (OEM) and/or authorised distributor/dealer Certificate along with PAN & EPF registration Certificates and Income tax return of last year.		
5	A Copy of GST registration certificate.		
6	The bidder shall submit along with bid document a copy of Audited Balance Sheets, Profit & Loss Account for the last three consecutive financial years i.e.2015-16, 2016-17 and 2017-18 to prove average annual turnover of Rs.15 crores.		
7	A copy of Valid license / authorisation from Central Pollution Control Board, Govt. Of India/ Pollution Control Board of any State Govt in case of buy back / scrap batteries.		
8	Technical details and specifications highlighting salient features of the lead acid batteries with MNRE registration and Self attested copy of test certificate from MNRE authorized lab or any govt. test Lab of the led acid batteries offered in the bid		
9	Declaration of the supplier about any relatives working with CREDA.		
10	Deviations, if any, from the specifications, terms & conditions etc.		
11	Whether validity of your tender is confirmed as per the document		
12	Availability of service facilities in Chhattisgarh		

#### **Details of EMD & Tender Document Fee Attached**

S. No.	Description
01	Earnest Money Deposit Earnest Money Deposit of Rs. 5,00,000/-, submitted in the form of Demand Draft/Banker's Cheque/RTGS, drawn onBank,Bank,Branch, bearing DD/BC Nobatter datedbatter bearing back of the second back of the secon
02	Tender Document Fee         Tender Document Fee of Rs. 5,000/-, submitted in the form of Demand Draft/Banker's Cheque /RTGS,         drawn on

(Sign & Seal of the Manufacturer/tenderer )

S. No.	Description	Attached	Not Attached
1	Earnest Money		
2	Tender Document Fee (proof of submission)		
3	The original document duly signed & sealed on each page, as a confirmation of acceptance of Terms & Conditions (T&C)		
4	A Copy of registration manufacturer or authorised distributor certificate & GST/PAN & S.T. Clearance Certificate, income tax return of latest year.		
5	The bidder shall submit along with bid document a copy of Audited Balance Sheets, Profit & Loss Account for the last three consecutive financial years, to prove turnover.		
6	Technical details and specifications highlighting salient features of the systems with MNRE registration and test report etc.		
7	Declaration of the supplier about any relatives working with CREDA.		
8	Deviations, if any, from the specifications, terms & conditions etc.		
9	Whether validity of your tender is confirmed as per the document		
10	Availability of service facilities in Chhattisgarh		

# B. Supply of Power Conditioning Unit (PCU), for Solar Application.

#### **Details of EMD & Tender Document Fee Attached**

S. No.	Description
01	Earnest Money Deposit Earnest Money Deposit of Rs. 5,00,000/-, submitted in the form of Demand Draft/Banker's Cheque/RTGS, drawn onBranch, bearing DD/BC No
02	Tender Document Fee         Tender Document Fee of Rs. 5,000/-, submitted in the form of Demand Draft/Banker's Cheque /RTGS,         drawn onBank,Branch, bearing         DD/BC No

(Sign & Seal of the Manufacturer/tenderer )

### C. Supply of Poly crystalline Solar modules of different capacities for solar Application.

S. No.	Description	Attached	Not Attached
1	Earnest Money (proof of submission)		
2	Tender Document Fee (proof of submission)		
3	The original document duly signed & sealed on each page, as a confirmation of acceptance of Terms & Conditions (T&C)		
4	A Copy of GST registration number, PAN and EPF number (if applicable), Income tax return of latest year.		
5	The bidder shall submit along with bid document a copy of Audited Balance Sheets, Profit & Loss Account for the last three consecutive financial years, to prove turnover of Rs. 10 crores.		
6	CA certified copies of balance sheets for the financial years 2015-16, 2016-17, and 2017-18.		
7	Performance certificate issued by govt./ govt. Agencies/ govt. Undertakings regarding supply of Solar PV modules in year 2016-17,2017-18 and 2018-19		
8	Self attested copy of Valid test certificate from MNRE approved test lab or IEC certified test labs of modules being offered in bid.		
9	Technical details and specifications highlighting salient features of the systems with MNRE registration and test report etc.		
10	Declaration of the supplier about any relatives working with CREDA.		
11	Deviations, if any, from the specifications, terms & conditions etc.		
12	Whether validity of your tender is confirmed as per the document		
13	Availability of service facilities in Chhattisgarh		

#### Details of EMD & Tender Document Fee Attached

S. No.	Description
01	Earnest Money Deposit Earnest Money Deposit of Rs. 200000/-, submitted in the form of Demand Draft/Banker's Cheque/RTGS, drawn onBranch, bearing DD/BC No datedis attached herewith.
02	Tender Document Fee         Tender Document Fee of Rs. 2,000/-, submitted in the form of Demand Draft/Banker's Cheque /RTGS,         drawn on       Bank,         DD/BC No       dated.         is attached herewith.

(Sign & Seal of the Manufacturer/Tenderer)

#### **4. UNDERTAKING OF THE TENDERER**

I/We have read carefully and examined the notice inviting tender, schedule, General Rules and terms and conditions of the contract, special conditions, Schedule of Rates and other documents and Rules referred to in the tender document for the supply.

I/We hereby tender my rates for the execution of the work for CREDA as specified within the time stipulated in the schedule in accordance with all aspects with the specifications, designs, drawings and instructions with such conditions so far as applicable.

I/We agree to keep the tender open for Ninety (90) days from the due date of submission thereof and not to make any modifications in its terms and conditions. I/We hereby forwarded as earnest money in the form of crossed demand draft/RTGS. If I/We, fail to commence or complete the work ordered in specified time I/We agree that the CREDA shall, without prejudice to any other right or remedy, be at liberty to forfeit the said Earnest Money absolutely. The said Earnest Money shall be retained by CREDA towards security deposit to execute all the works referred to in the tender documents upon the terms and conditions contained or referred to therein and to carry out such deviations as may be required by CREDA.

I/We hereby declare that I/We shall treat the tender documents, specifications and other records connected with the work as secret/confidential and shall not communicate information derived there-from to any person other than a person to whom I/We have authorized to communicate the same or use the information in any manner prejudicial to the safety of CREDA/the State Govt.

I/We shall abide to all the laws and shall be responsible for making payments of all the taxes, duties, levies and other Govt. dues etc. to the appropriate Govt. departments.

Our GST registration no. is \_\_\_\_\_\_\_ and The PAN No. under the Income Tax Act is \_\_\_\_\_\_ I/We shall be responsible for the payment of the respective taxes to the appropriate authorities and should I/we fail to do so, I/we hereby authorize CREDA to recover the taxes due from us and deposit the same with the appropriate authorities on their demand.

Dated:

Signature Name of Tenderer with seal

Place: Witness Signature:

Name: Postal Address:

### **5. INSTRUCTIONS FOR TENDERER**

- 1. The Chief Engineer, CREDA, H.O, Raipur invites sealed offers from the manufactures or their only one dealer/distributer for standardization of rates for Supply of Batteries (LMLA) for Solar Application with five years onsite warrantee as per specification attached & Rates for Buy-back/Sale of Scrap Batteries, Power Conditioning Unit (PCU) & Poly crystalline Solar modules for solar Application as per MNRE Specification/IEC Approved for anywhere in Chhattisgarh State.
- 2. Pre bid is scheduled on **23/01/2019** at **11.00 AM**, in the office of HO CREDA, or CBDA Conference Hall, Near Energy Park, Biodiesel Plant, Raipur (C.G.).
- 3. Tenders should only be dropped in **the tender box kept in the office of H.O. CREDA, O&M Cell, VIP Road, Raipur by 11:30 A.M. on 31.01.2019.** Tenders received after the time and dates shall not be considered. Covers should invariably be super-scribed for

(A) Rates for Supply of Batteries (LMLA) of different capacities for Solar Application & Rates for Buy-back of Scrap Batteries with five years onsite warrantee, anywhere in the state of Chhattisgarh", as per MNRE Specification,

(B) Supply of Power Conditioning Unit (PCU), for Solar Application with five years comprehensive maintenance contract anywhere in the State of Chhattisgarh" and

(C) Supply of Poly crystalline Solar modules for Solar Applications as per MNRE Specification/IEC Guidelines, of various capacities with 10 years onsite warranty, anywhere in the Chhattisgarh"

And Earnest Money should be deposited in the form of Demand Draft/RTGS drawn in favour of Director, CREDA, Raipur payable at Raipur. **The technical bid of the tenders will be opened as per details mentioned in front page.** The price bids of the technically eligible tenderer may be opened after the scrutiny of the technical bid on the same day or any other day as per the decision of the tender committee, which shall be communicated after the opening of Technical Bid.

4. At the time of opening E-3, every tenderer should submit details of their service network in Chhattisgarh. If CREDA feels that the service network details submitted are not adequate, the financial bids may not be opened or the tenderer may be deregistered even later on. Without the details of service network like address of local office, staff, phone numbers etc. the tenderer shall not be qualified for opening of financial bid.

#### 5. FOUR PART BID:

#### a) EMD

- b) Tender form & commercial details and other documents
- c) Technical bid
- d) Price Bid

Sealed Tenders are invited in four-part basis. One envelope (E-2) containing the E.M.D. (Tender fees also, if applicable) clearly super-scribed EMD on Top, Second envelope (E-3) should contain the tender form with required documents (Commercial details and other documents) and Third envelope (E-4) should contain technical details of the items for which price are being quoted, should be clearly marked as Technical Bid. Fourth envelope (E-5) of price bid should be clear marked as PRICE BID.

#### **\*NOTE:**

- 1 Sample items to be submitted by the tenderer who has not supplied directly to CREDA in the year 2017-18, or year 2018-19, if required by CREDA. Only after Prior Approval by the committee, the concern tenderer would be considered eligible.
- 2 Only those price bids will be accepted for which tenderer has quoted the Price along with technical details, which are approved by the tender committee.

For Battery tender:-

- 3 Manufactures should mandatorily submit impedance of each capacity of the battery.
- 4 Rates should be quoted in the Price Bid including single tier or double tier battery rack as per site condition and with mat, hydrometer and volt meter, as mentioned in price bid.

All these envelopes shall be kept in sealed cover (E-1) addressed to the Chief engineer, CREDA, Head Office, Near Energy Education Park, VIP Road Raipur (C.G) with the name of work, tender specification number, due date of tender, amount & mode of E.M.D. and name of the tenderer super-scribed on the cover.

- E-1- Sealed Main Tender Envelope which will contain four sealed envelope (E-2 + E-3 + E-4+E-5)
- E-2- Sealed Envelope which will contain EMD/EMDs & its details and tender fees, if applicable
- E-3- Sealed Envelope which will contain Tender form & commercial details and other related documents
- E-4- Sealed Envelope which will contain Technical Bid
- E-5 Sealed Envelope which will contain sealed envelopes of Price Bids.
   Each Price Bid of Various Categories of items should be kept in different envelops, as stated in Price Bids.

Please note that each price bid should be kept in a separate sealed envelope (E-5-1 & E-5-2 and should mark the name of the item for which the price bid is quoted). On the top of each of these sealed envelopes the name of the product should be clearly typed or hand written, for which the rates are quoted. Only those price bids should be submitted for which rates are being quoted. **Tenderer should not submit any blank price bid**. Tenderer should enclose the **Technical & Commercial details and other related documents** of only those items for which the rates are being quoted in envelope E-5.

The envelopes should have clear headings, stating the tender number & the categories of ITEMS for which rates are quoted.

- 5 When tenders are delivered by special messenger, it should be deposited in the tender box kept in the office of the H.O, CREDA, O&M Cell, VIP Road, Raipur till due date and time. Nobody is authorized to receive or grant receipt for tender delivered.
- 6 The terms, conditions and specifications mentioned in tender specifications shall be binding on the tenderer and no condition or stipulation contrary to the conditions shall be applicable. Please note that the tenderers who do not accept terms and conditions stipulated in this tender specifications, their offers shall be liable to be out rightly rejected without assigning any reason whatsoever.
- 7 Each page of tender document & enclosures shall be signed by the tenderer and affix the seal. All the pages of the documents issued must be submitted along the offer.
- 8 CREDA reserves the right to reject any or all tenders in part or full or to accept any tender considered advantageous to CREDA whether it is the lowest tender or not.
- 9 Offers through Telegraph/ Fax /Emails or open offer received will not be considered and summarily rejected.

#### **10** EARNEST MONEY :

Each tenderer should submit an earnest money required amount prior to submission of quotation in a separate envelope. The tenders not accompanied with earnest money or accompanied with inadequate earnest money will summarily be rejected and returned unopened. EMD details to be submitted with covering letter and attach herewith the bank draft/RTGS. The details of EMD are as below:

S. No.	Description of Items	EMD	Cost of Tender Document	
А	Supply of Batteries (Lead Acid) for solar application any Where in the State of Chhattisgarh.	5,00,000/-	5.000/-	
A	To Sale of Scrap Batteries anywhere in the state of Chhattisgarh	5,00,000/-	5,000/-	
В	Supply of Power Conditioning Unit (PCU), for Solar Application anywhere in the State of Chhattisgarh	5,00,000/-	5,000/-	
С	Tender for Supply of Poly crystalline Solar modules of different capacities for solar Application as per MNRE Specification/IEC Approved ,anywhere in the State of Chhattisgarh.	2,00,000/-	2,000/-	

The earnest money deposit can be furnished in the form of Bank Draft/RTGS on Schedule Bank at Raipur made payable to, **CREDA**, **Raipur**.

#### 11. EXEMPTION FROM PAYMENT OF EARNEST MONEY:

- i) SSI Units of Chhattisgarh State for the items for which these units are registered. Valid updated Certificate for such exemption should be attached with the tender document.
- ii) Fully owned State Government/ and Central Govt. manufacturing units will qualify for this exemption only if the State/ Central Govt. for which documentary evidence must be made available holds 100% shares. Valid updated Certificate for such exemption should be attached with the tender document.

#### **12. PRICE**:

The prices quoted should be firm and F.O.R. Destination anywhere in the State of Chhattisgarh. The quoted price shall include Freight, Loading, Unloading and any other incidental charges, but exclusive of GST. The GST shall be paid by CREDA in addition and in full on the produced bill at the rate applicable on the date of billing, for supply part. For Scrap Batteries the scrap value shall be deducted in full from the billed amount.GST applicable in the scrap value shall be additionally payable to CREDA.

#### **13.START- UP ENTITES:-**

The start- up entities will be given benefits as per the start up and MSME policies of CG Govt. The decision of CEO, CREDA shall be final and binding to all.

#### **14.JURISDICTION OF THE COURT:**

Any dispute arising out of the contract shall be subject to the jurisdiction of court at Raipur.

**14.Procurement** may be done by CREDA as and when requirement generate from the field offices. The amount and quantity of material may be changed as per CREDA requirement and No claim will be Entertain regarding this. The tender is only for the fixing of rates of solar inverter, Solar Modules ,and Batteries .Allocation of quantities shall be solely based on the demand received from field offices. The quantities are only the projective future demand based on past demands which shall not mean that this quantity will be awarded at one time at all.

Chief Engineer CREDA

## 6. GENERAL CONDITIONS OF CONTRACT

#### **1. DEFINITION OF TERMS:**

In writing these General Conditions of Contract, the specification and bill of quantity, the following works shall have the meanings hereby indicated unless there is something in the subject matter or content inconsistent with the subject.

CREDA shall mean the Chhattisgarh State Renewable Energy Development Agency represented through the Director.

The "Engineer in charge" shall mean the Engineer or Engineers authorized by Director, for the purpose of this contract. CREDA Engineer shall mean any Engineering person or personnel authorized by CREDA to the Supply of Batteries (Lead Acid) for Solar Application & Rates for Buyback/Sale of Scrap Batteries, Power Conditioning Unit (PCU) & Solar Module anywhere in the state of Chhattisgarh.

"The contractor" shall mean the successful bidder awarded with the contract or their successors and permitted assigns. Contract Price shall mean the sum named in or calculated in accordance with the provisions of the contract as the contract price.

General Conditions shall mean these General conditions of Contract. "CREDA Purchase" shall mean the purchases or turnkey works order which is being placed by CREDA.

"Specifications" shall mean the specifications annexed to these General Conditions of contract and shall include the schedules and drawings attached thereto or issued to the contractor as well as all samples and pattern, if any, "Month" shall mean calendar month. "Writing" shall include any manuscript, typewritten; printed or other statement reproduced in any visible form whether under seal or under hand.

#### **2. CONTRACT DOCUMENT:**

The term "Contract" shall mean and include the General conditions, specifications, schedules, drawings, supply orders etc issued against the contract schedule of price or their final general conditions, any special conditions applying to the particular contract specification and drawings and agreement to be entered into. Terms and conditions not herein defined shall have the same meaning as are assigned to them in the Indian contract Act.

#### 3. MANNER OF EXECUTION:

Execution of work shall be carried out in an approved manner as outlined in the technical specifications or where not outlined, in accordance with relevant Indian Standard Specifications or MNRE (where ever required), to the reasonable satisfaction of CREDA. The successful tenderer would be provided period of 50 days for supply installation and commissioning of the ordered quantity of batteries. The successful tenderer would be provided period of one 30 days for supply installation and commissioning of the ordered quantity of Modules & PCU. The tenderer shall not sublet or outsource the work allotted to him to any third party without prior authorization from CREDA.

#### 4. CONTRACTORS DEFAULT LIABILITY:

CREDA may upon written notice of default to the contractor terminate the contract in circumstances detailed hereunder:

- (a) If in the judgment of the CREDA, the contractor fails to supply the items within the time specified in the contract agreement or within the period for which extension has been granted by CREDA to the contractor.
- (b) If in the judgment of CREDA, the contractor fails to comply with any of the provisions of this contract.

(c) In the event CREDA does not terminate the contract as provided in paragraph (a) the contract shall continue performance of the contract in which case he shall be liable to CREDA for penalty for delay as set out in this contract until the work is completed.

#### **5.** FORCE MAJEURE:

The contractor shall not be liable for any penalty for delay or for failure to perform the contract for reasons of FORCE MAJEURE such as of God, acts of public enemy, acts of government, cyclone, fires, floods, epidemics, quarantine restrictions, strikes, freight embargoes provided that the contract, shall within 10 (ten) days from the beginning of such delay notice to CREDA in writing of the cause of delay. CREDA shall verify the facts and grant such extension as facts justify.

#### 6. **REJECTION OF WORKS**:

In the event of any of the material supplied by the contractor is found defective in material or workmanship or otherwise not in conformity with the requirement of this contract specifications, CREDA shall both reject the material and/ or work and advise the contractor to rectify the same. The contractor on receipt of such notices rectify or replace the defective material and rectifies the work, free of cost. If the contractor fails to do so, CREDA may,

- a) At its option replace or rectify such defective materials and recover the extra cost so involved from the contractor plus fifteen percent penalty from the contractor and/ or terminate the contract for balance work/ supplies with enforcement of penalty as per contract.
- b) Defective materials will not be accepted under any conditions and shall be rejected outright without compensation. The contractor shall be liable for any loss/damage sustained by CREDA due to defective work.

#### 7. WARRANTEE PERIOD:

The work done by the contractor as per specifications should be warranted unconditionally on site for satisfactory operation and against any defect in material for a period of sixty two months from the date on which batteries, PCUs/Inverters is/are supplied or sixty months from the date of Supply, whichever occurs first and for Solar modules (Performance warranty -PV modules must be warranted for their output peak watt capacity, which should not be less than 90% at the end of 10 years and 80% at the end of 25 years.) operation and against any defect in material for a period of 10 years from the date on which Modules is/are supplied .The above warrantee certificate shall be furnished in triplicate to CREDA at the time of billing. Any defect noticed during this period should be rectified by the supplier free of cost upon written notice provided such defects may be due to bad workmanship or bad materials used.

Warranty certificate issued by the manufactures shall be submitted in the prescribed format and individual factory test report of manufactures shall also to be submitted along with invoice of the supply order after delivery. Every item should bear serial number provided during the manufacturing process. These serial numbers should be mentioned by manufacturer in all the following documents, while submission of bills after delivery of the order items:-

- a. Invoice
- b. Factory test report (In house test report generated during manufacturing)
- c. Warranty certificate

If contractor do not rectify/supply the said problem after written notices than the defect Battery noticed shall be rectified / purchased through SD amount of contractor deposited in CREDA.

#### 8. PENALTY FOR DELAY IN COMPLETION OF CONTRACT:

If the contractor fails to complete the order within the phased delivery schedule specified in the work order or any extension granted there to, CREDA will recover from the contractor as penalty a sum of one percent (1%) of the contract price of the uncompleted portion of the work each calendar week delay. The total penalty shall not exceed 10% (Ten percent) of the contract price of the uncompleted portion of work.

#### 9. TERMS OF PAYMENT:

The following terms of payment shall apply for the tender in case of CREDA Purchase:-

- a) 90% of the value of the work order (Excluding GST) after acceptance of the work by CREDA and GST shall be paid by CREDA in addition and in full on the produced bill at the rate applicable on the date of billing for supply part. The scrap value shall be deducted in full from the billed amount.GST applicable in the scrap value shall be additionally payable to CREDA.
- b) Balance 10% after one year or TDR (assigned in the name of CREDA of equivalent amount valid for oneyear.

#### **10. PERFORMANCE SECURITY:**

The performance security shall be recovered as per 9(b). No interest shall be payable on this security. EMD may be retained as part of performance security.

#### 11. SECURITY DEPOSIT (SD):-

The SD shall be kept valid for period of two years. In the event of extension of completion date or warranty period the release period of SD shall also be suitably extended. No interest shall be payable on the Security Deposit. However the SSI units situated in Chhattisgarh state having valid registration shall be exempted from security deposit.

#### 12. PROCEDURE FOR L-1, OF TENDERER:-

The rates for items will be scrutinized as per their capacities according to the lowest rates quoted by the tenderer. & The rates for items will be scrutinized as per their capacities/type accordingly the lowest rates quoted by the tenderer for each capacity of items would be evaluated for selection of eligible tenderers.

#### 13. Procedure for splitting the order quantity/scope of work among more than one tenders:-

- a) The lowest rates quoted in the tender shall be offered to at most three further bidders in each category (other than who had quoted the lowest rate). Based on the acceptance of lowest price or rates approved by CREDA distribution of work may be considered are allocation as per norms stated at S.No. 12(b).
- b) For splitting the order quantity/scope of work among more than one tenderer the basis will be their original ranking as per the comparative statement. The allocation will be in the descending order L-1 getting the highest share. The distribution pattern for splitting the order in to 2/3parties will be as indicated below, but in special case CREDA may place order to tenderers other than who has quoted the lowest price based on the availability and urgency of situation :-

In case of distribution for	R	atio for original r	anking	
	L1	L2	L3	
Two parties	60 :	40		
Three parties	50 :	30 :	20	

- c) CREDA retains right to negotiate with L-1 and the final approved rate only be applicable. To L1,L2 & L3.
- d) If case two or more parties have quoted equal rates, the total amount of order allocable to them shall be equally distributed among them.

However, capability, capacity and past performance will be kept in view for the allocation of quantity to multiple sources. In addition to the above, in case more than one party have the same rank, than their share will be added and equality distributed. For example, if distribution is to be made among parties have the same ranking of L-2 i.e. the original rankings are L-1, L-2, L-2, L-3 than from the above table, the distribution shall be:-

L-1	:	50%
L-2	:	15%
L-2	:	15%

#### L-3 : 20%

### 14. WORK AWARD:-

-Supply order shall be given to L-1 subjected to rate reasonability. -CREDA retains the rights to negotiate with L-1 (A) Supply of Batteries (LMLA) for Solar Application for solar power plant & Rates for Buy-back/Sale of Scrap Batteries anywhere in the state of Chhattisgarh as per this tender norm.

If complete battery bank is not replaced and order is placed of replacement of few cells of battery bank than the eligible tenderer would be issued letter of intent (LOI). After the issuance of LOI the battery manufacturer shall have to visit, all the concerned sites mentioned in LOI and shall submit report which shall include following information:-

- 1. Submission of technical inspection of the already installed battery bank stating the status of all the installed cells.
- 2. Technical report should state whether the already installed battery bank will function as per norms of the tender after replacement of proposed faulty cells with new cells.
- 3. If the tenderer certifies that the new cells will synchronise with the already installed old cells than the LOI may be converted into purchase order
- 4. The total quantity of battery proposed to be purchased may be as per the requirement of CREDA.

# (B) Supply of Power Conditioning Unit (PCU) for Solar Application for solar power plant anywhere in the State of Chhattisgarh as per these tender norms.

(C)Supply of Poly crystalline solar modules for solar Application as per MNRE Specification/IEC Approved, for solar power plant & Rates for Modules anywhere in the state of Chhattisgarh as per this tender norm.

If complete Module setup is not replaced and order is placed of replacement of few Modules than the eligible tenderer would be issued letter of intent (LOI). After the issuance of LOI the Module manufacturer shall have to visit all the concerned sites mentioned in LOI and shall submit report which shall include following information:-

- 1. Submission of technical inspection of the already installed Module stating the status of all the installed Modules.
- 2. Technical report should state whether the already installed Module will function as per norms of the tender after replacement of proposed faulty Modules with new modules.
- 3. If the tenderer certifies that the new Module will synchronise with the already installed old Modules than the LOI may be converted into purchase order.
- 4. The total quantity of solar modules proposed to be purchased may be as per the requirement of CREDA.

Annexure-I

# **TECHNICAL SPECIFICATIONS OF LMLA BATTERY**

Supply of 2 Volts Tubular Plate long life low antimony Tubular Positive Plates Cells and 12 volts Tubular Plate long life Batteries as per detailed Technical Specifications with deep discharge electrolyte insulated terminal connectors micro-porous ceramic vent plug for anywhere in the state of Chhattisgarh. Specification are as stated below:-

LMLA Battery Technical Characteristics & Features:-					
Cell	2 Volt cell	12 Volt cell			
Battery Rating	2Volt-	12Volt-			
	100/200/300/400/600/800/900/1000/120	40/75/80/100/120/150/180/200Ah @			
	0/ 1500 Ah @ C -10	C -10			
Design life:	Minimum 05 years life at upto 50°C	Minimum 05 years life at upto 50°C			
Cycle Life.	1500 Cycle at 80%DOD & 7500 Cycles	1500 Cycle to 80%DOD , 3000			
	At 20% DOD at 2 volt	Cycles to 50% DOD, , 5000 Cycles to			
		20% DOD at 12 volt			
Confirming Standards	IEC 60896-21 & 22 ,TEC/GR/TX/BAT-	IEC 60896-21 & 22			
:	003/02 March 2011	,TEC/GR/TX/BAT-003/02 March			
		2011			
	IEC 61427 DIN 43539 P5 (Deep	IEC 61427 DIN 43539 P5 (Deep			
	discharge recovery) IEEE 1188, 1189	discharge recovery) IEEE 1188, 1189			
Operating	Range : $-20^{\circ}$ C to $+55^{\circ}$ C 0 (Optimum life	Range : $-20^{\circ}$ C to $+55^{\circ}$ C 0 (Optimum			
temperature:	can be obtained at 35 °C )	life can be obtained at 35 °C )			
Electrolyte	Lead Acid	Lead Acid			
Charging Current	max.20% of the battery AH capacity	max.20% of the battery AH capacity			
	min. 10% of the battery AH capacity	min. 10% of the battery AH capacity			
Bulk Voltage	2.60V + <u>0</u> .02/Cell	15.5V <u>+0</u> .01			
Float Voltage	2.30V +0.02/Cell	13.8V <u>+0</u> .01			
Load Reconnected	2.16V +0.02/Cell	12.96 <u>+0</u> .01			
Voltage					
Low voltage	1.90 <u>+0</u> .02V/Cell	11.4 <u>+0</u> .01V			
disconnect					
Recharge factor	110% of discharge Ah	110% of discharge Ah			
Accessories	All Connecting parts	All Connecting parts			

All technical and other details pertaining to the storage cells shall be supplied including but not limited to the following: -

Rated voltage and ampere hour capacity of each storage cell has the rated discharge rate.

1. Permitted maximum DOD.

2. Self discharge rate.

3. Cycle life of the storage cell and the anticipated life (in years) of the battery bank.

4. Total number of storage cells in use.

- 5. Details on cell interconnections, if any.
- 6. Self discharge per month < 3% @ 27<sub>0</sub>C.

7. Charge efficiency >93% @ 20% DOD (i.e. 80% SOC).

9. Topping-up frequency not more than once in 12 months after commissioning.

10. Supplied in dry charge condition.

11. Insulated terminal connectors, fasteners, sealed floats and charge instruction card supplied.

12. Special micro-porous ceramic vent plugs.

13. Low antimony tubular positive plates.

14. Rugged construction & Long Cycle life.

#### i) BATTERY BANK:

The battery bank capacity may be of different capacities, as specified in the price schedule, tubular plated lead acid type. The general specifications shall be as under:

- (a) The battery bank shall consist of required number of deep-discharge electrochemical storage cells, suitably interconnected as required. Parallel connections of storage cells will be discouraged.
- (b) The cells shall be capable of deep discharge and frequent cycling with long maintenance intervals and high columbic efficiency. Automotive or car batteries shall not be accepted.
- (c) The nominal voltage and capacity of the storage bank shall be selected and specified by the supplier in the bid.
- (d) The self-discharge rate of the battery bank or individual cell shall not exceed four (4) percent per month.
- (e) The permitted maximum depth of discharge (DOD) shall be specified by the supplier in the bid. It should be at least 80%.
- (f) Unless otherwise specified the cycle life of the battery shall not be less than 1500DC discharged cycles between the fully charged state and the permitted maximum DOD at the rate of C/10. It should be able to deliver 80% of its rated capacity from fully charged position to DOD.
- (g) The cells shall include explosion proof safety events.
- (h) The cells shall include the required number or corrosion resistant inter-cell required chemicals electrolyte packed in separate containers. Full instructions and technical details shall be provided for electrolyte filling and battery recharging at site for the first time.
- (i) The cells shall preferably be supplied in dry charged condition, complete with all required chemicals electrolyte packed in separate containers. Full instructions and technical details shall be provided for electrolyte filling and battery recharging at site for the first time.
- (j) If the cells are supplied in uncharged conditions, then the supplier shall provide full instructions for first time charging including, but not limited to, the following:

#### **Battery Rack**:

Battery rack for the battery bank of 2V cells should be of matured treated sal wood duly painted/best quality stainless steel, should be provided if the ordered quantity of batteries are more than 12 nos in case of 2V cell batteries (at each site) with insulated cupper terminal connecters & nut bolt. Placement of battery should be such that maintenance of the battery could be carried out easily. The nonreactive acid proof mat should be provided to cover the entire floor space of the battery room.

#### **Tools Kit & testing equipment**

Necessary tools kits to be provided along with each battery bank for any immediate maintenance compositions & provide one hydrometer with Stand, multimeter, apron, shoes & petroleum jelly, etc. for each battery bank set more than 12 nos in case of 2V cell batteries (at each site).

# TECHNICAL SPECIFICATIONS OF POWER CONDITIONING UNIT (PCU)

#### **General Features:**

The PCU for Solar Application should be capable of running both stand alone as well as hybrid (online mode) mode in an unattended SPV Power Plant unit PCU should be of very high quality having high efficiency and microprocessor controlled type. It shall be capable of monitoring its own parameters. The inverter should be completely compatible with the charge controller and distribution panel and may be of integral design. If CREDA finds the rates as per the demand of the project, then the rates may be standardized capacity wise, if required. The inverters should have following features:

- i) For DC to AC energy conversion, reliable and efficient solid-state inverters shall be used.
- ii) The inverter shall be designed for continuous, reliable and prime power supply as specified.
- iii) The inverter shall have high conversion efficiency from 25% load to the full rated load. The conversion efficiency at 25% load shall not be less than 87% of that at full rated load. The efficiency of the inverter shall be more than 90% at full load. The supplier shall specify the conversion efficiency in the offer.
- iv) The inverter shall have high overload capability. The overload capability of the inverter shall be a minimum of 200% at rated full load for minimum period of 05 sec. The supplier should specify the overload capacity in the bid.
- v) The output power factor of the inverter should be of suitable range to supply or sink reactive power.
- vi) The PCU shall have strong short circuit protection. The PCU shall have automatic restart facility after overload-triggered shutdown.
- viii) The output voltage of the inverter should be sinusoidal with harmonic distortion less than 3% THD.
- ix) The dimension, weight, foundation details etc. of the inverter shall be clearly indicated in the detailed technical specification and the same should be submitted along with the bid.
- x) Inverter should have digital LCD display mounted on it for displaying:-
  - Charging current
  - Charging voltage
  - Output current
  - Voltage of battery bank
  - > Output voltage
  - Voltage of SPV Panels
  - Grid Voltage (for online mode)
  - Inverter loading in watt
  - Frequency of output power
- xi) There should be a compulsory protection from lightening & short circuit installed in the circuit.

#### Protection & Safety:

Specifically the inverter should be a single phase static solid state type Power Conditioning Unit both AC & DC lines shall have suitable fuses and contractors to allow safe start up and shut down of the system. Fuses used in the DC circuit should be DC rated. Inverter should have overload, surge current protection, High Temperature, over/ under voltage and over/ under frequency.

The inverter shall have provision for input & output isolation (automatic & manual). One set of important and necessary spare parts, control cards recommended by the manufacturer are to be supplied with the inverters for any immediate requirement (Optional). Each solid-state electronic device shall have to be protected to ensure long life of the inverter as well as smooth functioning of the

inverter. Protection from Lightening has to be provided. Protection from reverse current due to any faults should be provided. Replacement of all types of cards installed in the PCU must be very easy & trouble free.

## **PCU Specification 500VA to 10KVA** Salient features of the Inverters shall be as follows:

Nominal Capacity(1) 500 VA (24V), 1KVA(24V & 48 V), 2/3 KVA (48 V) Single Phase PCU LCD/LED Display. (2) 4/5/6/8 (96 V) Single Phase PCU LCD Display. (3) 8/10KVA (120V) PCU Single Phase with Single LCD Display. S00VA to 3 KVA (charger MPPT, IGBT/MOSFET based & 4KVA to 10 KVA with charger based on IGBT Only)Type of Charger24/48/96/120 VDC Nominal, The voltage variation shall be as per change in array output.Output Voltage230 V +/- 5% for single phase.RegulationFrom minimum to maximum voltage 1-2 %Output Voltage230 V +/- 5% for single phase.Regulation500VA to 3 KVA (charger S00VA to 3 KVA (48 V) S00VA to 3 KVA to 40					
(2)4/5/6/8 (96 V) Single Phase PCU LCD Display. (3)(3)8/10KVA (120V) PCU Single Phase with Single LCD Display.Type of Charger500VA to 3 KVA (charger MPPT, IGBT/MOSFET based & 4KVA to 10 KVA with charger based on IGBT Only)input Voltage24/48/96/120 VDC Nominal, The voltage variation shall be as per change in array output.Output Voltage230 V +/- 5% for single phase.RegulationFrom minimum to maximum voltage 1-2 %Output1-Phase, 0.9 PFNo load Power consumption<2% of total output rating		(1) 500 VA (24V ), 1KVA(24V & 48 V), 2/ 3 KVA (48 V) Single Phase			
(3)8/10KVA (120V) PCU Single Phase with Single LCD Display.Type of Charger500VA to 3 KVA (charger MPPT, IGBT/MOSFET based & 4KVA to 10 KVA with charger based on IGBT Only)input Voltage24/48/96/120 VDC Nominal, The voltage variation shall be as per change in array output.Output Voltage230 V +/- 5% for single phase.RegulationFrom minimum to maximum voltage 1-2 %Output1-Phase, 0.9 PFNo load Power consumption<2% of total output rating	Nominal Capacity	PCU LCD/LED Display.			
Type of Charger500VA to 3 KVA (charger MPPT, IGBT/MOSFET based & 4KVA to 10 KVA with charger based on IGBT Only)input Voltage24/48/96/120 VDC Nominal, The voltage variation shall be as per change in array output.Output Voltage230 V +/- 5% for single phase.RegulationFrom minimum to maximum voltage 1-2%Output1-Phase, 0.9 PFNo load Power consumption<2% of total output rating		(2) 4/5/6/8 (96 V) Single Phase PCU LCD Display.			
Type of chargerwith charger based on IGBT Only)input Voltage24/48/96/120 VDC Nominal, The voltage variation shall be as per change in array output.Output Voltage230 V +/- 5% for single phase.RegulationFrom minimum to maximum voltage 1-2 %Output1-Phase, 0.9 PFNo load Power consumption<2% of total output rating		(3) 8/10KVA (120V) PCU Single Phase with Single LCD Display.			
In the second	Type of Charger	500VA to 3 KVA (charger MPPT, IGBT/MOSFET based & 4KVA to 10 KVA			
Input Voltagechange in array output.Output Voltage230 V +/- 5% for single phase.RegulationFrom minimum to maximum voltage 1-2 %Output1-Phase, 0.9 PFNo load Power consumption<2% of total output rating					
Change in array output.Output Voltage230 V +/- 5% for single phase.RegulationFrom minimum to maximum voltage 1-2 %Output1-Phase, 0.9 PFNo load Power consumption<2% of total output rating	input Voltage	24/48/96/120 VDC Nominal, The voltage variation shall be as per			
RegulationFrom minimum to maximum voltage 1-2 %Output1-Phase, 0.9 PFNo load Power consumption<2% of total output rating		change in array output.			
Output1-Phase, 0.9 PFNo load Power consumption<2% of total output rating	Output Voltage	230 V +/- 5% for single phase.			
No load Power consumption<2% of total output ratingDC reverse polarity protectionShould be provided in the inverter.Output Frequency50 Hz± 0.5 Hz Pure sine wave.Overload Capacity200% for 05 SecondEfficiency80% at 50% of load and More than 87% at full load 0.8 PFShort Circuit ProtectionCircuit Breaker and Electronics protection against sustained fault. Protection against the lightening fault.Low Battery VoltageAutomatic Shut DownTotal Harmonic DistortionLess than 3%Over VoltageAutomatic Shut DownAC over Current/LoadAutomatic Shut DownProtectionOver Voltage both at input & output. Over Current both at input & output. Over Frequency. Surge voltage induced at output due to external source.Instrumentation & IndicationInput & Output voltage, Frequency, Power output, efficiency of the inverter & charge controller, different status of inverter, kind of fault	Regulation	From minimum to maximum voltage 1-2 %			
DC reverse polarity protectionShould be provided in the inverter.Output Frequency50 Hz± 0.5 Hz Pure sine wave.Overload Capacity200% for 05 SecondEfficiency80% at 50% of load and More than 87% at full load 0.8 PFShort Circuit ProtectionCircuit Breaker and Electronics protection against sustained fault. Protection against the lightening fault.Low Battery VoltageAutomatic Shut DownTotal Harmonic DistortionLess than 3%Over VoltageAutomatic Shut DownAC over Current/LoadAutomatic Shut DownProtectionOver Voltage both at input & output. Over Current both at input & output. Over Frequency. Surge voltage induced at output due to external source.Instrumentation & IndicationInput & Output voltage, Frequency, Power output, efficiency of the inverter & charge controller, different status of inverter, kind of fault	Output	1-Phase, 0.9 PF			
Output Frequency50 Hz± 0.5 Hz Pure sine wave.Overload Capacity200% for 05 SecondEfficiency80% at 50% of load and More than 87% at full load 0.8 PFShort Circuit ProtectionCircuit Breaker and Electronics protection against sustained fault. Protection against the lightening fault.Low Battery VoltageAutomatic Shut DownTotal Harmonic DistortionLess than 3%Over VoltageAutomatic Shut DownAC over Current/LoadAutomatic Shut DownProtectionOver Voltage both at input & output. Over Current both at input & output. Over Frequency. Surge voltage induced at output due to external source.Instrumentation & IndicationInput & Output voltage, Frequency, Power output, efficiency of the inverter & charge controller, different status of inverter, kind of fault	No load Power consumption	<2% of total output rating			
Overload Capacity200% for 05 SecondEfficiency80% at 50% of load and More than 87% at full load 0.8 PFShort Circuit ProtectionCircuit Breaker and Electronics protection against sustained fault. Protection against the lightening fault.Low Battery VoltageAutomatic Shut DownTotal Harmonic DistortionLess than 3%Over VoltageAutomatic Shut DownAC over Current/LoadAutomatic Shut DownProtectionOver Voltage both at input & output. Over Current both at input & output. Over Frequency. Surge voltage induced at output due to external source.Instrumentation & IndicationInput & Output voltage, Frequency, Power output, efficiency of the inverter & charge controller, different status of inverter, kind of fault	DC reverse polarity protection	Should be provided in the inverter.			
Efficiency80% at 50% of load and More than 87% at full load 0.8 PFShort Circuit ProtectionCircuit Breaker and Electronics protection against sustained fault. Protection against the lightening fault.Low Battery VoltageAutomatic Shut DownTotal Harmonic DistortionLess than 3%Over VoltageAutomatic Shut DownAC over Current/LoadAutomatic Shut DownProtectionOver Voltage both at input & output. Over Current both at input & output. Over Frequency. Surge voltage induced at output due to external source.Instrumentation & IndicationInput & Output voltage, Frequency, Power output, efficiency of the inverter & charge controller, different status of inverter, kind of fault	Output Frequency	50 Hz <u>+</u> 0.5 Hz Pure sine wave.			
Short Circuit ProtectionCircuit Breaker and Electronics protection against sustained fault. Protection against the lightening fault.Low Battery VoltageAutomatic Shut DownTotal Harmonic DistortionLess than 3%Over VoltageAutomatic Shut DownAC over Current/LoadAutomatic Shut DownProtectionOver Voltage both at input & output. Over Current both at input & output. Over Frequency. Surge voltage induced at output due to external source.Instrumentation & IndicationInput & Output voltage, Frequency, Power output, efficiency of the inverter & charge controller, different status of inverter, kind of fault	Overload Capacity	200% for 05 Second			
Short Circuit ProtectionProtection against the lightening fault.Low Battery VoltageAutomatic Shut DownTotal Harmonic DistortionLess than 3%Over VoltageAutomatic Shut DownAC over Current/LoadAutomatic Shut DownProtectionOver Voltage both at input & output. Over Current both at input & output. Over Frequency. Surge voltage induced at output due to external source.Instrumentation & IndicationInput & Output voltage, Frequency, Power output, efficiency of the inverter & charge controller, different status of inverter, kind of fault	Efficiency	80% at 50% of load and More than 87% at full load 0.8 PF			
Protection against the lightening fault.Low Battery VoltageAutomatic Shut DownTotal Harmonic DistortionLess than 3%Over VoltageAutomatic Shut DownAC over Current/LoadAutomatic Shut DownProtectionOver Voltage both at input & output. Over Current both at input & output. Over Frequency. Surge voltage induced at output due to external source.Instrumentation & IndicationInput & Output voltage, Frequency, Power output, efficiency of the inverter & charge controller, different status of inverter, kind of fault	Short Circuit Protoction	Circuit Breaker and Electronics protection against sustained fault.			
Total Harmonic DistortionLess than 3%Over VoltageAutomatic Shut DownAC over Current/LoadAutomatic Shut DownProtectionOver Voltage both at input & output. Over Current both at input & output. Over Frequency. Surge voltage induced at output due to external source.Instrumentation & IndicationInput & Output voltage, Frequency, Power output, efficiency of the inverter & charge controller, different status of inverter, kind of fault	Short circuit Protection	Protection against the lightening fault.			
Over Voltage       Automatic Shut Down         AC over Current/Load       Automatic Shut Down         Protection       Over Voltage both at input & output. Over Current both at input & output. Over Frequency. Surge voltage induced at output due to external source.         Instrumentation & Input & Output voltage, Frequency, Power output, efficiency of the inverter & charge controller, different status of inverter, kind of fault	Low Battery Voltage	Automatic Shut Down			
AC over Current/Load       Automatic Shut Down         Protection       Over Voltage both at input & output. Over Current both at input & output. Over Frequency. Surge voltage induced at output due to external source.         Instrumentation & Input & Output voltage, Frequency, Power output, efficiency of the inverter & charge controller, different status of inverter, kind of fault	Total Harmonic Distortion	Less than 3%			
ProtectionOver Voltage both at input & output. Over Current both at input & output. Over Frequency. Surge voltage induced at output due to external source.Instrumentation & IndicationInput & Output voltage, Frequency, Power output, efficiency of the inverter & charge controller, different status of inverter, kind of fault	Over Voltage	Automatic Shut Down			
Protection       output. Over Frequency. Surge voltage induced at output due to external source.         Instrumentation &       Input & Output voltage, Frequency, Power output, efficiency of the inverter & charge controller, different status of inverter, kind of fault	AC over Current/Load	Automatic Shut Down			
Instrumentation &       Input & Output voltage, Frequency, Power output, efficiency of the inverter & charge controller, different status of inverter, kind of fault		Over Voltage both at input & output. Over Current both at input &			
Instrumentation &Input & Output voltage, Frequency, Power output, efficiency of the inverter & charge controller, different status of inverter, kind of fault	Protection	output. Over Frequency. Surge voltage induced at output due to			
Indication inverter & charge controller, different status of inverter, kind of fault		external source.			
	Instrumentation &	Input & Output voltage, Frequency, Power output, efficiency of the			
by LED & audio signal(Buzzer).	Indication	inverter & charge controller, different status of inverter, kind of fault			
		by LED & audio signal(Buzzer).			

# Remark:- The capacity of 8KVA & 10 KVA/120 Volt Single phase PCU should have following features.

- Continuous battery life and state of health monitoring.
- It should have Integrated data and fault logging
- It should have Communication with external SCADA/network/PC
- It should All parameters are software configurable
- It should have facilities like Remote diagnostics, monitoring and reporting via Internet and GSM.
- The PCU should be equipped with a data logger for collecting & recording the hourly data of grid status particular voltage & frequency.
- PCU should have provision for PCU by-pass arrangement so as to cater load directly through grid, in case of PCU failure.
- There should be emergency stop switch on the front panel of PCU.

#### Solar Charge Controller (MPPT based):-

Solar charge controller should be MPPT based charge controller and must track the maximum power available from solar panels connected at all times.

MPPT Charge controller must possess below features:

- 1 Must provide 3 stage battery charging to ensure long life of battery.
- 2 MPPT Controller must have wide PV input voltage range for efficient PV generation.
- **3** Must Charge the battery efficiency.
- 4 MPPT Controller should be able to work in bad weather also.
- 5 MPPT Controller should possess minimum pack efficiency of 94 %.
- 6 Battery & PV reserve plenty protection.
- 7 Must have breakers at all inputs & outputs.
- 8 PV Parameters i.e. PV voltage, PV content, PV Power must be provided on LCD Display.

#### Power Conditioning Unit (PCU) for Solar Application: 10KVA to 100KVA Three Phase

#### Main Features of the PCU:

PCU should be a combined unit comprising of inverter, charge controller, visual display and necessary protections.

- It should be Industrial grade bi-directional Inverter
- It should have Integrated P V Charger Controller.
- It should be rated for continuous operation at full load.
- It should have Programmable battery management parameters.
- It should have Temperature compensated battery charging.
- It should have solar priority grid charging.
- It should Automatic re-start after over load triggered shutdown.
- It should have Continuous battery life and state of health monitoring.
- It should have Integrated data and fault logging
- It should have Communication with external SCADA/network/PC
- It should All parameters are software configurable
- It should have facilities like Remote diagnostics, monitoring and reporting via Internet and GSM.
- The PCU should be equipped with a data logger for collecting & recording the hourly data of grid status particular voltage & frequency.
- PCU should have provision for PCU by-pass arrangement so as to cater load directly through grid, in case of PCU failure.
- There should be emergency stop switch on the front panel of PCU.

### **Specification:**

Switching elements	IGBT/MOSFET			
Type of Charger	MPPT- Pl specify the range of Voltage with each capacity			
Type of Charger	of system			
Nominal Inverter Capacity	10KVA to 100 KVA			
Nominal Array Capacity	10KW to 100 KW			
MPPT Range	AS APPLICABLE			
Battery nominal Volt	120V to 240V			
	105 % > 60 sec			
Inverter Surge Rating @ 40 deg C	150 % > 30 sec			
	200 % > 5 sec			
Inverter Output Voltage	415V+/- 2% for three phase			
Inverter Output Frequency	50 +/- 0.5% Hz Pure sine wave.			
Grid Voltage	415V+/- 2% for three phase			
Grid Frequency	50 Hz ( Range 48 to 51 Hz)			
Overload Capacity	200% for 05 Second			
Efficiency	80% at 50% of load and More than 87% at full load 0.8 PF			
Inverter THD	<3%			
DC Ripple	<3%			
Dielectric strength	1.1 KV between input/output and ground with EMI			
Dielectric strength	protections removed.			
Inverter Efficiency @ 40 deg C, nominal load	>90%			
Operating Ambient Temp.	0 to 50 deg C			
Humidity	95% max. Non condensing			
Enclosure	Free standing, IP 21 , Epoxy powder coated			
Cooling	Temperature controlled fan forced			
5	1. Short Circuit			
	2.Overload			
	3. Over Temperature			
	4.Over Voltage			
Protections	5. Lightning			
	6. Phase imbalance (in case of three phase output)			
	7. Reverse polarity			
	8. DC input Reverse Polarity			
	9. DC input Under voltage & over voltage			

**NOTE:** INVERTERS WITH NET OUTPUT SIMILAR TO ORDERED CAPACITY WILL ONLY BE ACCEPTED.

Note:-There must be a separate marking on the inverter stated as under:-

Name of district/Spare/Year of Mfg/Name of company

Balod/Spare/2019/Cosmo

# **TECHNICAL SPECIFICATIONS OF SOLAR MODULE**

Supply of Poly crystalline Solar modules as per detailed Technical Specifications or MNRE Specification/IEC Approved for anywhere in the state of Chhattisgarh. Features are:-

S.No.	Particulars
1	Supply of Poly crystalline Solar modules Cap 75 Wp with 36 cells according to MNRE Guidelines
2	Supply of Poly crystalline Solar modules Cap125 Wp with 36 cells according to MNRE Guidelines
3	Supply of Poly crystalline Solar modules Cap 150 Wp with 36 cells according to MNRE Guidelines
4	Supply of Poly crystalline Solar modules Cap 200 Wp with 60 cells according to MNRE Guidelines
5	Supply of Poly crystalline Solar modules Cap 240 Wp with 60 cells according to MNRE Guidelines
6	Supply of Poly crystalline Solar modules Cap 240 Wp with 72 cells according to MNRE Guidelines
7	Supply of Poly crystalline Solar modules Cap 250 Wp with 60 cells according to MNRE Guidelines
8	Supply of Poly crystalline Solar modules Cap 250 Wp with 72 cells according to MNRE Guidelines
9	Supply of Poly crystalline Solar modules Cap 260 Wp with 60 cells according to MNRE Guidelines
10	Supply of Poly crystalline Solar modules Cap 260 Wp with 72 cells according to MNRE Guidelines
11	Supply of Poly crystalline Solar modules Cap 280 Wp with 72 cells according to MNRE Guidelines
12	Supply of Poly crystalline Solar modules Cap 300 Wp with 72 cells according to MNRE Guidelines

PID Test:- Modules must pass PID (Potential induced Degradation )Test as per the norms of MNRE.

### **8. SCHEDULE - I**

# PART 'C': TECHNICAL INFORMATION

(Strike off whichever is not applicable. Separate sheets should be used. Wherever necessary)

01.	Whether material offered is exactly as per technical specification :		Yes/No
02.	Whether the copies of orders received during last 3 years from other	:	Yes/No
	State Nodal Agency or from other Organization for similar materials		(if yes, give details)
	Enclosed.		
03.	Whether performance certificate from such Organization regarding	:	Yes/No
	Supplies is enclosed.		(if yes, give details)
04.	Whether pamphlets/technical details literatures along with drawing etc.:		Yes/No
	Furnished with the offer		(if yes, give details)
05.	Whether the tenderer agrees to furnish material test certificates in	:	Yes/No
	Respect of chemical composition and physical properties from Govt./		
	Govt. approved lab with each batch of supplies.		
06.	Whether the tenderer has furnished details of manufacturing	:	Yes/No
	Equipments and short history of plant		(if yes, give details)
07.	Whether details of manufacturing process furnished with offer. :		Yes/No
			(if yes, give details)
08.	a) Whether all testing facilities are available.	:	Yes/No

If so, give details and in case of non-availability of facilities indicate approved lab available in surrounding areas where tests are proposed to be conducted.

PLACE

DATE

SIGNATURE OF TENDERER

NAME IN FULL DESIGNATION/STATUS FIRM/COMPANY SEAL

# SCHEDULE - I PART 'B': COMMERCIAL INFORMATION

(Strike off, whichever is not applicable. Separate sheets should be used. Wherever necessary)

01.	i) Earne	est Money Details	:		lraft/Banl	
	::)	Amount of EMD & full details		-		to CRE DA, Raipur
	ii) iii)	Amount of E.M.D. & full details If exempted, state whether the	•		nit of C.G	
	111)	bidder / Fully Owned State/Central G	ovt Unit			1.
	iv)	Reference of documentary	:	Yes/No	0	
		Evidence regarding exemption enclosed	1.			
02.	Whet	her the offer is valid for 6 months	:	Yes/No	Э	
	from	the date of opening of commercial/				
	Tech	nical bid.				
03.	A)	Concessional Sales Tax	:			Central Sales
						al Tax against
				Declar	ation for	
				C	,	ncessional State Sales Tax/
						ax against
	D)			declar	ation for	m.
	B)	Rate of Sales Tax on the date of bid:				
04.	DISC	(exclusive in the rate quoted)				
04.	a)	Whether any rebate/discount is offered.			Yes/No	
	b)	If yes, whether the rebate is uncondition		tional	:	
	0)	Rate/amount of rebate/discount	141, 0 01141	:	•	
		If conditional State condition			:	
05.	PAY	MENT TERMS:				
		her CREDA's terms of payment is acceptal	ble to ten	derer	:	Yes/No
06.		IPLETION PERIOD OF WORK:				
		her tenderer is agreeing for completion per	riod of w	ork as	:	Yes/No
07	-	fied in the tender				
07.		ALTY CLAUSE: her agreeable to CREDA's Penalty Clause				Yes/No
08.		her agreeable to CREDA's reliarly Clause her agreeable to CREDA's clause of warra	ntee neri	od	•	Yes/No
00. 09.		URITY DEPOSIT:	nee perio	ou	·	103/100
07.		her Security Deposit clause is understood			:	Yes/No
10.		ate State, Central Sales Tax Registration N	umber		:	State
		se Note that in case of non-registration with		`ax	:	Central
	Depa	rtment Purchase Tax as admissible shall be	e deducte	d by		
		urchaser from the Bills of the supplier)				
		her photocopy of the clearance from Incon			:	Yes/No
		Deptt. and profit & loss Account and Turn				
		b, then give details) 5 years up to the last fin been enclosed.	nancial y	ear		
12.		e mention whether rates offered are			:	Yes/No
12.		cable for part quantities.			•	103/100
	11	1 1				
	PLAC					SIGNATURE OF
	TENL DATE	DERER				NAME IN FULL
	DAII	2.				DESIGNATION/STATUS

# <u>9. SCHEDULE - I</u> PART 'A': GENERAL INFORMATION

(Strike off whichever is not applicable. Separate sheets should be used, wherever necessary)

	ame & Address of the Bidder	:	
02. IN	ame & Address of the firm/Company etc.		
	a) Registered office b) Fosterry/works address	•	
	<ul><li>b) Factory/works address</li><li>c) Fax Nos.</li></ul>		
		•	
	d) Telephone / Mobile Nos.		
03.	e) Email id		Yes/No
	Confirm whether tenderer is Manufacturer		i es/ino
04.	Only manufacturer to give following particulars		
	a) Address of factory	•	
	b) Year of starting manufacture	:	
	c) Whether same/similar materials	:	
	Manufactured earlier		
	(if yes, give reference)		
	d) Yearly/monthly production capacity	:	
	e) Maximum yearly production	:	
05	Achieved so far		X7 D.T
05.	Whether the firm is SSI Unit of	:	Yes/No
	Chhattisgarh State:		
	a) If yes, write registration No.	:	
	b) Whether documentary evidence	:	
	Regarding registration enclosed		
	c) Items for registration	:	
	d) Period of registration	•	
	e) Whether latest copy Competency/	•	Yes/No
	Certificate furnished		
06.	Whether the firm is 100% owned by		
	a) State Government	:	Yes/No
	b) Central Government	:	Yes/No
	If yes, Notification/certificate issued from	:	Yes/No
	The competent authority to this effect is		
	Enclosed		
07.	a) Whether the bidder is old participant	:	Yes/No
	with CREDA		
	b) If yes, whether documentary	:	Yes/No
	Evidence is enclosed.		
08.	Any other information that bidder may like	:	If yes, give details
	to give in order to highlight his bid		

#### PLACE : TENDERER

DATE:

#### SIGNATURE OF

#### NAME IN FULL DESIGNATION/STATUS FIRM/COMPANY SEAL

#### SCHEDULE - II TECHNICAL DEVIATIONS

From Tenderer Name & Address –

To,

The Director CREDA, HO, Raipur

#### Sub:- Technical Deviations.

Dear Sir,

The technical deviations & variations to the specifications stipulated in the tender, for the item quoted are as under: -

Sl. No. Condition	Clause No.	Page No.	Statement of
of Tender	of Tender	deviations and	
document	document	variations	

\_\_\_\_\_

2. Except aforesaid deviations, the entire order, if placed, on us shall be executed in accordance with your specifications and other conditions. Variation/deviations etc. if found, elsewhere in our offer should not be given any considerations while finalizing the tender.

PLACE

DATE

SIGNATURE OF TENDERER

NAME IN FULL DESIGNATION/STATUS FIRM/COMPANY SEAL

\*NOTE: -Continuation sheet of like size & format may be used as per bidder's requirements and shall be Annexed to this schedule.

### 10.<u>SCHEDULE - III</u> PAST EXPERIENCE

From: Bidder's Name & Address: -

To, The Director, CREDA, HO, Raipur

#### Sub: - Performance/past experience.

Dear Sir,

We furnish herewith the record of our performance and experience as follows:-

\_\_\_\_\_

PLACE

DATE

SIGNATURE OF TENDERER

NAME IN FULL DESIGNATION/STATUS FIRM/COMPANY SEAL

\*NOTE: -Photocopy of the orders & performance reports received from other State Agencies/Govt. Undertakings etc. should be enclosed.

# PRICE BIDS

# ARE

# TO BE ENCLOSED

# IN

# **ENVELOPE 'E-5'**

# A. Price Bid-I

### To be kept in a separate envelope E-5-1 properly sealed & submitted inside envelope 'E-5' <u>Schedule of Rates for offering rates for Batteries</u>

Rates are inclusive of all the accessories mentioned above/the Tender specification, Excise, Freight, loading, unloading, installation, commissioning and any other incidental charges & exclusive of GST.

S. No.	Item Specification	Unit	Unit Price in ₹		
01	<b>2 Volt Lead Acid Tubular Plated Cells</b> in fully charged condition for SPV Power Plant along with arrangement for inter connection for these cell in parallel connection deep discharge electrolyte, Level indicator, Porcelain/acid resistant ceramic vent plug & Petroleum jelly as per Tender Specification:				
1	100Ah @ C-10	per piece			
2	200Ah @ C-10	per piece			
3	300Ah @ C-10	per piece			
4	400Ah @ C-10	per piece			
5	600Ah @ C-10	per piece			
6	800Ah @ C-10	per piece			
7	900Ah @ C-10	per piece			
8	1000Ah @ C-10	per piece			
9	1200Ah @ C-10	per piece			
10	1500Ah @ C-10	per piece			
02	<b>12 Volts Lead Acid Tubular Plated</b> Battery in fully charged condition for Solar Photovoltaic Power Plant (SPVPP) along with arrangement for inter connection for these cell in parallel connection, deep discharge electrolyte, Level indicator, Porcelain/acid resistant ceramic vent plug & Petroleum jelly as per Tender Specification:				
11	40 Ah	per piece			
12	75 Ah	per piece			
13	80 Ah	per piece			
14	100 Ah	per piece			
15	120 Ah	per piece			
16	150 Ah	per piece			
17	180 Ah	per piece			
18	200 Ah	per piece			

Rate should be inclusive of all the accessories mentioned in the tender specifications, FOR anywhere in Chhattisgarh and also inclusive of Freight, loading ,unloading, installation and commissioning and any other incidental charges but exclusive of GST. GST shall be paid in addition by CREDA and in full on the produced bill at the rate applicable at the time of billing.

Tenderer's Signature

Full Name .....
Designation.....

Place:

Date:

Company's SEAL

### To be kept in a separate envelope E-5-2 properly sealed & submitted inside envelope E-5

# Price Bid – II

# Schedule of Rate for offering Buy-back/ Scrap Battery Sale

S. No.	Description of Item	Unit	Rate in Rs. (excluding GST)
01	Used/Scrap 2Volt Lead Acid Tubular Plated Cells	02volt/Ah/per piece	
02	Used/Scrap 12Volt Lead Acid Tubular Plated Cells	12volt/Ah/per piece	
03	Used/Scrap 2Volt T-Gel	02volt/Ah/per piece	
04	Used/Scrap 12Volt T-Gel	12volt/Ah/per piece	

a) Rate should be inclusive of Freight from anywhere in Chhattisgarh, loading ,unloading, dismantling ,but exclusive of GST .GST as applicable on date of bill shall be further payable to CREDA.

Tenderer's Signature Full Name ..... Designation.....

Place:

Date:

Company's SEAL

# **B.** Price Bid

# To be kept in a separate envelope E-5-1 properly sealed & submitted inside envelope 'E-5' Schedule of Rates for offering rates for Power Conditioning Unit (PCU) for

# **Solar Application**

(1) Power Conditioning Unit (PCU) Single Phase

S. No.	Capacity of the Power Conditioning Unit (PCU) for Solar Application <u>Single phase</u> output sine wave Grid Support, as per specifications of the tender	Supply of PCU anywhere in Chhattisgarh (Quoted Rate in Rupees)	Cost of Comprehensive maintenance for 05 years within warranty period	Total Cost of Supply of PCU + Cost of Comprehensive maintenance for 05 years within warranty period	Cost of annual maintenance Contract after 05 years warranty period inclusive of all taxes and charges
1	500VA/12V				
2	500VA/24V				
3	1KVA/24V				
4	1 KVA / 48 V				
5	2 KVA /48 V				
6	3 KVA / 48 V				
7	4 KVA / 96 V				
8	5 KVA / 96 V				
9	6 KVA / 96 V				
10	8 KVA / 96 V				
11	8 KVA / 120 V				
12	10 KVA / 120 V				
Applica	ble rate of GST in %				

#### (2) Power Conditioning Unit (PCU) Three Phase

S. No.	Capacity of the Power Conditioning Unit for Solar Application with <u>Three</u> <u>phase</u> output with sine wave Grid Support as per specifications of the tender	Supply of PCU anywhere in Chhattisgarh (Quoted Rate in Rupees)	Cost of Comprehensive maintenance for 05 years within warranty period	Total Cost of Supply of PCU + Cost of Comprehensive maintenance for 05 years within warranty period	Cost of annual maintenance Contract after 05 years warranty period inclusive of all taxes and charges
1	10 KVA / 120 V				
2	10 KVA / 240 V				
3	15K VA / 240 V				
4	20 KVA / 240 V				
5	25 KVA / 240 V				
6	30 KVA /240 V				
7	35 KVA / 240 V				
8	40 KVA / 240 V				
9	45 KVA / 240 V				
10	50 KVA / 240 V				
11	60 KVA / 240 V				
12	80 KVA / 240 V				
13	100 KVA / 240 V				
A	oplicable rate of GST in %				

Note: - Continuation sheet of like size & format may be used as per bidder's requirements and shall be annexed to this schedule.

> <u>The Bidder can enclose their own Technical Specification regarding Power Conditioning Unit (PCU)</u> <u>Single Phase & Three Phase</u>

Above quoted rates are FOR anywhere in Chhattisgarh inclusive of all taxes, duties, packing, forwarding, freight, insurance and any other incidental charges & Exclusive of GST. GST shall be paid in addition and in full on produced bill at the rate applicable at the time of billing.

Tenderer's Signature
Full Name
Designation

Place:

Date:

Company's SEAL

# **C. Price Bid**

#### To be kept in a separate envelope E-5-1 properly sealed & submitted inside envelope 'E-5' Schedule of Rates for offering rates for Poly crystalline Solar modules

Rates are inclusive of all the accessories mentioned above as per the tender specifications and also inclusive of Freight, loading, unloading ,installation and commissioning and any other incidental charges but exclusive of GST.

SN	Particular	Unit Price Excluding GST
1	Supply of Poly crystalline Solar modules Cap 75 Wp with 36 cells according	
	to MNRE Guidelines	
2	Supply of Poly crystalline Solar modules Cap125 Wp with 36 cells according	
	to MNRE Guidelines	
3	Supply of Poly crystalline Solar modules Cap 150 Wp with 36 cells	
	according to MNRE Guidelines	
4	Supply of Poly crystalline Solar modules Cap 200 Wp with 60 cells	
	according to MNRE Guidelines	
5	Supply of Poly crystalline Solar modules Cap 240 Wp with 60 cells	
	according to MNRE Guidelines	
6	Supply of Poly crystalline Solar modules Cap 240 Wp with 72 cells	
	according to MNRE Guidelines	
7	Supply of Poly crystalline Solar modules Cap 250 Wp with 60 cells	
	according to MNRE Guidelines	
8	Supply of Poly crystalline Solar modules Cap 250 Wp with 72 cells	
	according to MNRE Guidelines	
9	Supply of Poly crystalline Solar modules Cap 260 Wp with 60 cells	
	according to MNRE Guidelines	
10	Supply of Poly crystalline Solar modules Cap 260 Wp with 72 cells	
	according to MNRE Guidelines	
11	Supply of Poly crystalline Solar modules Cap 280 Wp with 72 cells	
	according to MNRE Guidelines	
12	Supply of Poly crystalline Solar modules Cap 300 Wp with 72 cells	
	according to MNRE Guidelines	
	Total	

#### **Terms: Mandatory**

These rates are inclusive of Insurance, Freight, Loading, unloading, transportation, installation, commissioning etc. but excluding GST .

GST shall be paid in addition and in full on the produced bill at the rate applicable at the time of billing.

The Evaluation shall be done as per the individual unit price being quoted as above.

Signature of the Tendrer With Name, Designation, Seal & Date

### Agreement - A

**Road Raipur** (C.G) hereinafter called as "CREDA" the term which includes its successors, assigns and legal heirs; through Shri S. Jain, Chief Engineer CREDA, resident of Anand Niketan, Awanti Vihar, Raipur, on the other hand on the following terms and conditions:-

1. Whereas, the "CREDA" intends to standardize the rates for Supply of for Batteries (Lead Acid) for Solar Application & Rates for Buy-back/Sale of Scrap Batteries, Power Conditioning Unit (PCU) & Solar Module anywhere in the state of Chhattisgarh (hereinafter called as "Supply/Works") or all anywhere in the State of Chhattisgarh had floated Tender No. ------/CREDA/O&M/2019/..... for Item Rate Tender & Contract for as per above tender. "Tenderer" had submitted their rates and agreed to supply/perform the "Work" to CREDA on the rates appended hereto in Annexure No. 1, as per the terms and conditions of the tender already agreed upon, and,

**2.** Whereas, the rates quoted by the "Tenderer" are inclusive of all taxes, duties, levies, transport and all other incidental expenses F.O.R. at site and the "Tenderer" shall not increase the rates of the supply/perform the "Work" up to **one year from the date of agreement** and the rates mentioned in Annexure -1 shall be valid for a further period of six months or more with mutual agreement, and,

**3.** Whereas, the "Tenderer" is committed to execute the "Work " at the ordered site, on the rates already agreed upon, within the schedule mentioned in the Work/Supply orders that shall be issued from time to time, and,

**4.** Whereas, it has been also agreed upon that during any disputes regarding interpretation of any of the clauses of this agreement, the decision of the "Director, CREDA" shall be final and binding on both the parties,

**5.** Whereas, it is agreed upon that all the terms and conditions of the tender and work/supply orders which have already been agreed upon shall form part of this agreement, and,

**6.** Whereas, it has also been agreed that for any disputes arising, the jurisdiction shall be the Courts of Raipur, in witness whereof, both the parties thereto, put their signatures below:

#### Witness

1-----

For and on behalf of Tenderer

2-----

For and on behalf of CREDA

# Agreement - B

**2.** Whereas, the rates quoted by the "Tenderer" are inclusive of all taxes, duties, levies, transport and all other incidental expenses F.O.R. at site and the "Tenderer" shall not increase the rates of the "Supply/Work "up to **one year from the date of agreement** and the rates mentioned in Annexure -1 shall be valid for a further period of six months or more with mutual agreement, and,

**3.** Whereas, the "Tenderer" is committed to execute the "Work " at the ordered site, on the rates already agreed upon, within the schedule mentioned in the Work/Supply orders that shall be issued from time to time, and,

**4.** Whereas, it has been also agreed upon that during any disputes regarding interpretation of any of the clauses of this agreement, the decision of the "Director, CREDA" shall be final and binding on both the parties,

**5.** Whereas, it is agreed upon that all the terms and conditions of the tender and work/supply orders which have already been agreed upon shall form part of this agreement, and,

**6.** Whereas, it has also been agreed that for any disputes arising, the jurisdiction shall be the Courts of Raipur, in witness whereof, both the parties thereto, put their signatures below:

Witness

For and on behalf of Tenderer

-2.....

1.....

For and on behalf of CREDA

### Agreement- C

This agreement is hereby made today the \_\_\_\_\_\_ of \_\_\_\_\_ 2019 at Raipur between M/s \_\_\_\_\_\_\_, a company / firm registered under the Companies Act, 1956 / Partnership Act / \_\_\_\_\_\_\_Act, having its registered office at \_\_\_\_\_\_\_ (hereinafter called as "Tenderer", the term which includes its successors, assigns and legal heirs), through \_\_\_\_\_\_, resident of \_\_\_\_\_\_\_ on one hand and Chhattisgarh State Renewable Energy Development Agency-CREDA registered under Societies Act having its Registered office at **Head Office, CREDA**, **Near Energy Education Park, VIP Road Raipur (C.G)** (hereinafter called as "CREDA" the term which includes its successors, assigns and legal heirs) through \_\_\_\_\_\_ resident of \_\_\_\_\_\_\_, resident of \_\_\_\_\_\_\_, resident on the other hand on the following terms and conditions:-

1. Whereas, the "CREDA" intends to standardize the rates for Supply of Solar Photovoltaic Modules (hereinafter called as "Work") anywhere in the State of Chhattisgarh had floated Tender No.\_\_\_\_\_ dtd \_\_\_\_\_ for standardize the rates for Supply anywhere in the State of Chhattisgarh. "Tenderer" had submitted their rates and agreed to supply/perform the "Work" to CREDA on the rates appended hereto in Annexure No. 1, as per the terms and conditions of the limited tender and,

S.no.	Particular	Approved Unit Rates
1	Supply of Poly crystalline Solar modules Cap 75 Wp with 36 cells according to MNRE Guidelines	
2	Supply of Poly crystalline Solar modules Cap125 Wp with 36 cells according to MNRE Guidelines	
3	Supply of Poly crystalline Solar modules Cap 150 Wp with 36 cells according to MNRE Guidelines	
4	Supply of Poly crystalline Solar modules Cap 200 Wp with 60 cells according to MNRE Guidelines	
5	Supply of Poly crystalline Solar modules Cap 240 Wp with 60 cells according to MNRE Guidelines	
6	Supply of Poly crystalline Solar modules Cap 240 Wp with 72 cells according to MNRE Guidelines	
7	Supply of Poly crystalline Solar modules Cap 250 Wp with 60 cells according to MNRE Guidelines	
8	Supply of Poly crystalline Solar modules Cap 250 Wp with 72 cells according to MNRE Guidelines	
9	Supply of Poly crystalline Solar modules Cap 260 Wp with 60 cells according to MNRE Guidelines	
10	Supply of Poly crystalline Solar modules Cap 260 Wp with 72 cells according to MNRE Guidelines	
11	Supply of Poly crystalline Solar modules Cap 280 Wp with 72 cells according to MNRE Guidelines	
12	Supply of Poly crystalline Solar modules Cap 300 Wp with 72 cells according to MNRE Guidelines	

- 2. Whereas, the rates quoted by the "Tenderer" are inclusive of Excise, insurance, freight, loading, unloading, transportation and GST applicable. and all other incidental expenses F.O.R. at site and the "Tenderer" shall not increase the rates of the "Work "up to one year from the date of agreement and the rates mentioned in Annexure -1 shall be valid for a further period of six months or more with mutual agreement, and,
- 3. Whereas, the "Tenderer" is committed to execute the "Work " at the ordered site, on the rates already agreed upon, within the schedule mentioned in the Work/Supply orders that shall be issued from time to time, and,
- 4. Whereas, it has been also agreed upon that during any disputes regarding interpretation of any of the clauses of this agreement, the decision of the "Chief Executive Officer, CREDA" shall be final and binding on both the parties,
- 5. Whereas, it is agreed upon that all the terms and conditions of the tender and work/ supply orders which have already been agreed upon shall form part of this agreement, and,
- 6. Whereas, it has also been agreed that for any disputes arising, the jurisdiction shall be the Courts of Raipur,
- 7. It is also agreed that, If any sub contractor/Vendor/Staff is engaged for the allotted work the payment liabilities for them should be of tenderer, if they fail to do the same, then the payment will be made by CREDA on tenderer cost.

In witness whereof, both the parties thereto, put their signatures below:

Witness

For and on behalf of Tenderer

1-----

2-----

For and on behalf of CREDA