



## Chhattisgarh State Renewable Energy Development Agency (CREDA) (Dept. of Energy, Govt. of Chhattisgarh)

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**TENDER DOCUMENT No.83174/CREDA/Solar Induction/2021-22 Dated: 20/09/2021**

**UNIQUE TENDER ID – 83174**

**“STANDARDIZATION OF RATES FOR SUPPLY, INSTALLATION & COMMISSIONING OF SOLAR D.C. INDUCTION COOKING STOVES WITH FIVE YEARS ON SITE WARRANTY & COMC ANYWHERE IN THE STATE OF CHHATTISGARH”**

Particulars	From Date & Time	To Date & Time	Place
Date of issue of notice Inviting Bid	20-09-2021	-----	-----
Period of availability of bidding document at website	20-09-2021 05:00 PM	-----	<a href="http://www.creda.co.in/Tenders">http://www.creda.co.in/Tenders</a>
Demo of Solar D.C. Induction Cooking Stove & Pre Bid queries Submission in writing	06-10-2021 02:00 PM	06-10-2021 04:00 PM	At CREDA H.O., Raipur
Submission of Online Bid (Technical + e-Price Bid)	20-09-2021 05:00 PM	25-10-2021 05:00 PM	<a href="https://eproc.cgstate.gov.in">https://eproc.cgstate.gov.in</a>
Opening of Technical Bid	26-10-2021 12:00 Noon	26-10-2021 05:00 PM	At CREDA Conference Hall. CREDA HO, Raipur ( <a href="https://eproc.cgstate.gov.in">https://eproc.cgstate.gov.in</a> )
Declaration of Eligible Tenderer	<b>After Conclusion of Technical evaluation</b>		At CREDA H.O., Conference Hall, Raipur.
Opening of e- Price Bid	<b>After conclusion of Technical evaluation and declaration of eligible bidders</b>		At CREDA H.O., Conference Hall, Raipur.

**Tender Document Cost– Rs.25,000.00 + 18% GST = Rs.29,500.00**

**(In words Rupees Twenty Nine Thousand Five Hundred Only) to be deposited in CREDA's account along with EMD via RTGS/NEFT as a single transaction.**

Document can be downloaded from our website [www.creda.co.in](http://www.creda.co.in) or from Chhattisgarh e-Procurement portal i.e. <https://eproc.cgstate.gov.in>.

## CHATTISGARH STATE RENEWABLE ENERGY DEVELOPMENT AGENCY

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**NOTICE INVITING E- TENDER**

CREDA invites online Bids from the manufactures (i.e. OEM) for “**standardization of rates for supply, installation & commissioning of solar D.C. Induction Cooking Stoves with five years on site warrantee & COMC, conforming to the IEC/BIS and MNRE standards anywhere in the state of Chhattisgarh**” from registered vendors of CREDA having track record in solar Induction Cook stove manufacturing, as per following details -

Sr.No.	Item Description	Approximate Quantity	Cost of Tender Document	EMD	Essentials
1.	Supply, Installation & Commissioning of solar D.C. Induction cooking stove with five years onsite warrantee, comc & insurance anywhere in the state of Chhattisgarh	10000Nos	Rs25,000.00 +18% GST = Rs.29,500.00	Rs 10,00,000.00 (for bidders registered outside of CG state)  Rs. 5,00,000.00 (for bidders registered in CG state)	As per clause no. 1A to 3F of Eligibility Criteria (Page no.7)

**Important Events and time schedule for this tender are as follows–**

Particulars	From Date & Time	To Date & Time	Place
Date of issue of notice Inviting Bid	20-09-2021	-----	-----
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Opening of Technical Bid	26-10-2021 12:00 Noon	26-10-2021 05:00 PM	<a href="https://eproc.cgstate.gov.in">https://eproc.cgstate.gov.in</a>
Declaration of Eligible Tenderer	After Conclusion of Technical evaluation		
Opening of e- Price Bid	After conclusion of Technical evaluation and declaration of eligible bidders		

**Estimated Value of tender:-Rs. 200.00 Crore (may be changed as per Budget availability)**

Technical Bid and Price Bid shall be submitted online only at <https://www.eproc.cgstate.gov.in>. Bidders are advised to follow the instructions provided for Registration and e-Submission Process accordingly. (For any query about e-bidding please visit user manual at <https://www.eproc.cgstate.gov.in>)

**Details of this Bid are mentioned at Bid Documents which can be downloaded from our website [www.creda.co.in](http://www.creda.co.in). The Bidder should have to deposit Bid document cost along with EMD through NEFT/RTGS in the account of CREDA mentioned below.**

Bidders are requested to submit Pre-Bid queries with their suggestions/objections/ reservations if any with details so as to avoid any confusion and to ensure clarity and transparency regarding the Bid.

CREDA reserves all rights to accept/reject any or all tenders in full/part without assigning any reasons.

**Chief Engineer  
RE-V, H.O. CREDA  
Raipur (CG)**

**CHECK LIST OF DOCUMENTS TO BE UPLOADED IN THE E-BIDDING PORTAL**

To ensure that your Bid uploaded on the Chhattisgarh e-Procurement portal i.e. <https://eproc.cgstate.gov.in> is complete in all respects, please go through the following checklist & tick mark for the enclosures attached with your Bid –

Sl. No.	Envelope	Description of documents to be uploaded in the e-bidding portal	Complied (For Office Use only)
1	<b>A. Pre-Qualification</b>	EMD + Tender Document Fee submission form of the bidder confirmed by CREDA (as on page – 5)	
2		Self-Attested Undertaking of the Bidder as mentioned on <b>Page – 6</b> of the tender document	
3		Copy of original tender document duly signed & with stamp on each page, as a confirmation of acceptance of the Terms & Conditions (T&C).	
4		PAN, GSTIN issued in the name of the bidder	
5		Self-certificate from Bidder on not being a debarred from Government contract or a blacklisted company.	
6		Declaration of conflict of interest - by bidder about any relatives working with CREDA and Affidavit <b>as per Annexure III, Draft Agreement as per Annexure I</b>	
7		Copy of Registration: Certificate (or Acknowledgment) as vendor of CREDA for Solar Induction Cooking Stove valid for FY 2021-22.	
8	<b>B. Technical and Financial Qualification</b>	Copy of Approved Test Reports/Acknowledgements of submission of sample for testing in the name of bidder/manufacturer as per eligibility criteria.	
9		Original Net Worth Certificate duly signed by Chartered Accountant	
10		Copy of certificate for last three years turnover of works done in Solar Field.	
11		Copy of ITRs for last three Financial Years of the Bidder	
12		Completion and Performance Certificates of Supply of Solar Induction Cooking Stove by the Bidder in Govt. Scheme of any state or Market Mode Scheme of CREDA.	
13		Proof of being Eligible Manufacturer of Solar Induction Cooking Stove in the name of manufacturer.	
14		Manufacture Authorization certificates of Solar Induction Cooking Stove (mandatory in case of non manufacturer of Solar panel, battery etc)	
15		Undertaking on indigenouslyness of components	
16		Undertaking for the remaining test reports (for which acknowledgements have been submitted) submission within 90 days from the date of agreement.	
17		Schedule – I Part-A	
18		Schedule – II Part-B	
19		Schedule – III Part-C	
20		Technical Data Sheet for each components showing full technical details	
21		Details of Service centres in Chhattisgarh	

## Details of EMD and Tender Document Fee

A scanned copy of the EMD and Bid Document fee transaction shall have to be uploaded in the format below on the Chhattisgarh e-Procurement portal. Details uploaded in incorrect format shall be rejected.

Tender No. and Date	
Name of the Bidder	
<b>Bidder's Bank Account Details</b>	
(i) Name of the bank	
(ii) Branch	
(iii) IFSCCode	
(iv) Account No.	
(v) Transaction reference number	
(vi) Date of transaction	
(vii) EMD + Bid Document Fee	(Rs. ....+ 29,500) (Total Rs...../- In Words (Rs.....))

Name of A/c	CREDA
Bank & Branch Name	ICICI Bank, Panchpedi Naka, Raipur
Bank Account Number	134601000400
Branch IFSC Code	ICIC0001346

(Sign & Seal of the bidder)

**\*NOTE –**

1. The EMD and the Tender Document Fee shall have to be deposited as a single NEFT/RTGS transaction in CREDA's bank account (amount mentioned above).
2. Bidder's those who have valid MSME Competency Certificate are exempted from submitting the EMD amount mentioned above. They have to only pay the bid document fees.

**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 valid for **One Hundred Eighty (180) days** from the due date of submission thereof and not to make any modifications in its terms and conditions.

A sum of **Rs..... Lacs** is hereby forwarded as **Earnest Money** in the form of crossed demand draft / RTGS / NEFT payable to CREDA at Raipur (C.G.). If I/We fail to commence or complete the sanction ordered in specified time or fail to fulfil the any condition of tender document, 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/Government.

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. .... 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.

**I/We hereby state that we have provided information of our near relatives as stated in the affidavit attached at “Annexure – III”**

Dated:

**Signature**

Place:

**Name of tenderer with seal .....**

**Witness :**

Signature: .....

Name: .....

Postal Address: .....

.....

## SECTION - 1 INSTRUCTIONS FOR TENDERERS

### 1. **ELIGIBILITY CRITERIA -**

#### A. **MINIMUM EXPERIENCE:**

Bidders must have minimum experience of supply, installation and commissioning of **10 Nos. of Solar Induction Cooking Stoves (any capacity)** anywhere in India till the date of submission of bid.

#### B. **TEST REPORTS:**

Tenderer must have to submit test reports of all the major components such as SPV Module, Battery, Controller and Induction Cooking Stove.

C. Experience Certificates submitted should be in attached format (as per **Annexure-II**) or **Other Format containing similar information as in attached format (Annexure-II) shall be considered only in-case of submitted in Hindi / English Language only.** Work order, L.O.I. / L.O.A etc., will not be acceptable.

D. Tenderers must have a Net worth of **Rs.1 Crore** as on **31.03.2021(which is defined as “Net value of the Assets minus (-) Net value of liabilities”)**. They shall have to submit a **Certificate** duly signed by a qualified and registered Chartered Accountant having UDI number as a proof. Produced certificate must tally with the audited balance sheet.

E. Tenderers should have an aggregate turnover of minimum **5 crores** in related work in last three years i.e. 2018-19, 2019-20& 2020-21. Certified copies of the annual returns and audited balance sheet submitted to the Registrar of Companies/ Income Tax Authorities should be enclosed. For the preceding years a **Summarised Sheet** of turnover certified by registered CA must be enclosed.

F. Tenderer who are debarred from business by Govt. /Govt. Agency in any state would not be eligible to participate in this bid. A self-declaration should be submitted by the bidder to this effect, failing which bid shall be rejected.

G. **Additional Eligibility Criteria-** Even though the bidders meet the above qualifying criteria, they are subject to be disqualified if they have:

- a. Made misleading or false representations in the forms, statements, affidavits and attachments submitted in proof of the qualification requirements; and/or
- b. Record of poor performance such as abandoning the works, not properly completing the contract, inordinate delays in completion litigation history, or financial failures etc.; and/or
- c. Participated in the previous bidding for the same work and had quoted unreasonably high or low bid prices and could not furnish rational justification for it to CREDA.

H. **Tenderer should be registered Manufacturer at MSME for solar based cooking equipment.**

I. **Tenderer must have Service Centre in Chhattisgarh.**



2. **CONSORTIUM** -Joint Venture/ Consortium shall not be allowed in this Bid.
3. **START-UP AND NEW ENTREPRENEUR**– Start-ups and New Entrepreneurs shall not be allowed in this Bid.
4. **BIDDING PROCESS** –

For ease of accessing the e-bidding website and registration the following is to be done by bidder –

- A. Visit <https://eproc.cgstate.gov.in>
- B. **Prospective bidders are requested to download, read and understand the Manuals present on the website so as to clearly understand the bid submission process.**
- C. The user will be directed to e-bidding page where all information regarding registration is available along with helpline details.
- D. Technical bid and Price Bid shall be submitted online only at <https://eproc.cgstate.gov.in> latest by **05.00 PM on 25-10-2021**. Bids submitted after scheduled time and date shall not be considered.
5. **EMD AND TENDER DOCUMENT FEE-**

The EMD and tender Document Fee shall have to be paid via RTGS/NEFT to CREDA's Account mentioned below as a single transaction.

Name of the A/c	CREDA
Bank & Branch Name	ICICI Bank, Panchpedi Naka, Raipur
Bank Account Number	134601000400
Branch IFSC Code	ICIC0001346

6. **SUBMISSION OF DOCUMENTS** –

All the documents including technical and financial Bid should be submitted online on Chhattisgarh e-Procurement portal <https://eproc.cgstate.gov.in> as per the items mentioned in the Checklist on page no. 4 in this bid. Bidders are advised to finish all the bidding portal related activities such as registration, USB certificate/token approval, payments etc. so as to avoid last minute difficulties during the bid submission. Bidders are also advised to make themselves fully aware with the bid submission mechanism to avoid last minute hassles and doubts during bid submission. CREDA shall only entertain genuine technical issues/glitches, provided that the bidder submits evidence regarding the same.

7. **SPECIFICATION AMENDMENTS-**

The Specifications of Solar D.C. Induction Cooking Stove, should be as specified in the tender. If any amendments are issued by MNRE/ CREDA in due course of time, in this context, then those shall be applicable under this tender.

8. **GST & PAN-**

Bidder shall have to submit copies of GST registration number and PAN numbers issued by the appropriate authority.

9. **THE BID** –

The Pre-Qualification, Technical-Financial Qualification Documents and Price Bid, other related documents must be uploaded in the portal i.e. <https://eproc.cgstate.gov.in> **from 05:00 PM 20-09-2021 to 05:00 PM dated 25-10-2021**. Nobody is authorized to receive or grant receipt for Bid delivered on behalf of CREDA. **Bid received through any other means shall not be considered and shall be rejected.**



**10. ANALYSIS OF RATE-**

- A. Bidder should quote their rates considering all requirement of Solar D.C. Induction Cooking Stove as per Technical Specification as per the tender Page No.-**20** and all other factors in price of different components and keeping the quality of work and different destinations for supply anywhere in Chhattisgarh in mind.
- B. If the successful bid is unbalanced in relation to the benchmark cost of CREDA as stated in tender Page No.- **49** by less than 10%, the successful bidder shall have to provide Additional Performance Security (APS) to the extent of difference of 90% of benchmark cost and rates quoted by the successful bidder for total allocable quantity in such Model of in which he has submitted unbalanced bid, in the form of Demand Draft/RTGS/NEFT issued by approved scheduled bank in favour of CREDA, before signing the agreement. The same shall be returned after successful Completion of allocated work. Those bidders who accept the L1 rates also required to submit Additional Performance Security (APS) for allocated work.

In case the L-1 bidder refuses to deposit Additional Performance Security (APS) then his bid will be rejected by the sanctioning authority and earnest money shall be forfeited and shall be blacklisted /debarred to participate in any tender/ activity of CREDA till further orders. In such case CREDA shall have discretionary rights to decide reasonable rates in comparison to benchmark costs which may be rates quoted by L2 if found reasonable.

If the bidder who has execute the agreement and fails to complete the allocated work or left the incomplete work as per this tender then this Additional Performance Security (APS), S.D. and EMD shall be forfeited by the CREDA and the agreement shall be terminated and bidder shall be blacklisted /debarred to participate in any tender/ activity of CREDA and notified in CREDA official as well as govt. official to publically, till further orders.

**11. REGISTRATION OF BIDDER-**

Bidders should have a valid registration certificate as Vendor for Solar D.C. Induction Cooking Stove in CREDA in SPV programme for FY 2021-22.The acknowledgement of application submitted for the registration or renewable of registration for FY 2021-22 will also be accepted. Only manufacturer itself shall be allowed to participate in the tender. In case of multiple distributor/dealer of a manufacturer participates in the tender then the tender of all dealers/distributors including manufacturer shall summarily be rejected.

**12. VALIDITY-**

Full descriptive particulars and complete specifications should accompany the offer. Offers should be kept open for acceptance for at least **180 days** from the date of opening. After finalization of this tender the approved rates shall be valid till one year from the date of award; however, CREDA shall have liberty to increase or decrease or curtail this validity if needed.

**13. TERMS & CONDITIONS-**

- A. The terms, conditions and specifications mentioned in tender document shall be binding on the tenderers and no condition or stipulation contrary to the conditions shall be acceptable. It may please be noted that the tenderers who do not accept terms and conditions stipulated in this tender documents, their offers shall be liable to be rejected out-rightly without assigning any reason whatsoever.
- B. Each page of tender document & enclosures shall be signed by the tenderer and seal affixed. All the pages of the documents issued must be submitted along with the technical offer. In case of any corrections / alterations in the tender, the tenderer should attest the same; otherwise tenders may not be considered.
- C. Tenderers are also instructed to submit their tenders in properly arranged manner (with index, proper paging and with flags on important documents). Incomplete, lose, conditional or improper arranged tenders will not be accepted.

**14. CREDA RESERVES THE RIGHT-**

- (i) To reject or accept any or all tenders wholly or partly without assigning any reason on the grounds considered advantageous to CREDA, whether it is the lowest tender or not.
- (ii) To split the quantities against the tender further for the same items/work. No reason will be assigned by CREDA for this and will be binding on the tenderers.
- (iii) Due to large quantum of work & limitation of the time period for completion of the work CREDA may take consent from other tenderers if they agree to work on rates standardized by CREDA.
- (iv) CREDA may undergo agreement with those eligible tenderers who give consent to work on rates standardized by CREDA and may allocate work to them. Rates approved through this tender may be standardized for all eligible tenders to work in **year 2021-22** and shall be valid for one year from the date of agreement. However, CREDA reserves right to curtail or extend this period.

**15. COMMUNICATIONS-**

- (i) All the communication between Bidder and CREDA shall be in writing. Notice sent by Fax or other Electronic means shall be effective on confirmation of the transmission. Notice sent by registered post or speed post shall be effective of delivery or at expiry of normal delivery period as under taken by Postal Service.
- (ii) Offers through Telegraph/Fax/Emails/Post/Courier or open offers etc. received shall be summarily rejected.

**16. TENDER DOCUMENT FEE AND EARNEST MONEY DEPOSIT-**

- (i) Each bidder should submit Tender Document Fee and Earnest Money Deposit (EMD) in the form of RTGS/NEFT as single transaction only as mentioned in the **TENDER No 83174/CREDA/SOLAR Induction/2021 Date: 20/09/2021**. Tender Document Fee & EMD submitted in any other form e.g. Cash/Bank Guarantee/FDR/TDR etc. shall not be accepted.
- (ii) MSME unit registered as manufacturer or service provider of Solar Induction Stove and public sectors of government are exempted from EMD subjected to submission of valid document i.e. **COMPENTANCY CERTIFICATE** issued from MSME
- (iii) If the Bidder who has executes the agreement, then their EMD will be forfeited by the CREDA for 05 Year from the date of agreement.

**17. DISPLAY OF SAMPLES-**

Tenderers will have to provide samples of their Module, Battery, Controller & Induction Cooking Stove B.O.S. etc. if asked by CREDA for examination by Technical Committee of CREDA. **Only those bidders will be allowed to participate in tender whose sample is found satisfactory by Technical Committee.**

**18. PRE-BID QUERIES-**

- (i) Suggestions, doubts, confusion, request, queries etc. related to this tender shall have to be sent in writing from **02:00 PM to 04:00 PM dated 06/10/2021 at CREDA H.O. Raipur**. After that any representation in this regard shall not be considered.
- (ii) The purpose of this pre-bid queries will be the clarification of issues related to this tender that can be raised at that stage. Any amendments in the bid documents which may become necessary as a result of pre-bid queries shall be part of original Bid document and communicated through corrigendum on CREDA website (www.creda.co.in).

**19. TECHNICAL CRITERIA-**

- (i) The Bidder must have to submit test reports of all the major components such as SPV Module, Battery, Controller and Induction Cooking Stove.
- (ii) The Bidder should have sufficient technically qualified and well-experienced manpower for execution of the project and after sales service of the Solar D.C. Induction Cooking Stove. These details may be called by CREDA and in case there is any deficiency found the Bidder may be debarred.

**20. FORFEITURE OF EARNEST MONEY DEPOSIT-**

It should be clearly understood that in the event of tenderer failing to enter into the agreement in the prescribed format on their quoted rates and also fails to execute assigned works under any Scheme of CREDA, within stipulated time, if he is so communicated within the validity period of the offer, the full amount of earnest money will be forfeited and tenderer shall be debarred from future work with CREDA. CREDA's decision in this regard will be final and binding on the tenderers.

**21. SUBMISSION OF ENGINEERING DRAWING & DOCUMENT-**

Tenderers will have to submit Engineering Documents with technical details, drawings, Specifications of components and make etc. to CREDA for approval, as and when asked by CREDA. Works may only be started out only after approval of the Engineering Drawing, Document and their samples, if required.

**22. COMC OF SOLAR D.C. INDUCTION COOKING STOVE -**

The Comprehensive Maintenance work may be entrusted to the concerned bidders on the approved lowest rate of the bid. During COMC the bidders should have spares of every component ready in their service centre or CREDA District Office so that no system should be kept non-functional for more than 07 days. If the bidder fails to comply norms of warranty and COMC then CREDA has right to get the rectification at the cost of bidder. Awarding the work of COMC to bidders is totally at the discretion of CREDA. Also if the bidder is awarded with COMC work, then they must have to submit quarterly monitoring report of the system working satisfactorily duly authenticated by AE/DI of concerned District Office of CREDA.

**23. INSPECTIONS-**

CREDA reserves right to inspect the material at Godowns/Temporary Stores before dispatch and also at works sites.

**24. MANDATORY DEDUCTION -**

One Percentage of the cost of installation of **Solar D.C. Induction Cooking stove** including civil work will be deducted from the Payment and will be deposited in the account of CHHATTISGARH BHAWAN EVAM ANYA SANNIRMAN KARMKAR MANDAL. The bidder shall have to provide list of labours/manpower engaged for the execution of work to the Engineer-in-charge of CREDA. (As per CG Govt.'s Notification 1996)

**25. MANDATORY EMPLOYMENT -**

Qualified diploma engineer with minimum wage rupees 15000/- per month for works above rupees 20 lacs and Qualified graduate engineer with minimum wage rupees 25000/- per month for works above rupees 01 crore shall have to be deployed by the System Integrator. (As per CG Govt.'s order no. F7-17/2020/1-6 Dated 02.12.2020).

**26. TAX OBLIGATIONS-**

CREDA shall deduct TDS for Income Tax, etc. under various acts and deposited with the appropriate authority. Costs and taxes before execution of agreement with CREDA so as to ensure tax deposition as per Government Rules accordingly.

**27. JURISDICTION OF THE COURT -**

Any dispute arising out of the contract shall be subject to the jurisdiction of Hon'ble Court of Chhattisgarh.

## SECTION - 2

### GENERAL CONDITIONS OF CONTRACT

#### 1. DEFINITIONS-

In writing General Conditions of Contract, the specifications and bill of quantity, the following words 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 Chief Engineer.
- Work shall mean any work entrusted to the tenderer as mentioned in the scope of work and work order.
- The "Engineer in charge" shall mean the Engineer or Engineers authorized by CREDA for the purpose of this contract. Inspecting Authority shall mean any Engineering person or personnel authorized by CREDA to supervise and inspect the erection of the Solar D.C. Induction Cooking Stove hereinafter called "System".
- "The Eligible SI/Tenderer" shall mean the tenderer 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 the General conditions of Contract.
- "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 eligible SI (System Integrator) from time to time, 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 written by hand.

#### 2. PROOF OF MANUFACTURER-

Those bidders who are also manufacturers of an important component of Solar D.C. Induction Cooking Stove such as SPV Modules, Battery, Controller and Induction Cooking stove shall have to submit proof of their factory, SSI Registration/MSME certification and list of Machineries and Equipment's.

#### 3. CONTRACT DOCUMENT-

The term "Contract" shall mean and include the General conditions, specifications, schedules, drawings and work 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 or any other Act in vogue or by any person of common knowledge and prudence.

#### 4. MANNER OF EXECUTION-

- A. Execution of work shall be carried out under Govt. Mode Scheme of CREDA in an approved manner as outlined in the technical specifications or where not outlined, in accordance with desired Specifications laid down by CREDA, to the reasonable satisfaction of the Engineer.
- B. **Successful Tenderer / Bidder here-in-after called the SI (System Integrator).**
  - (i) The eligible SI shall conduct a detailed survey of Beneficiary. All necessary documents and beneficiary details shall have to be submitted in concerned District Office of CREDA in prescribed manner.
  - (ii) Engineer-in-Charge of District Office of CREDA shall examine this report. Engineer-in-charge may visit to beneficiary if he/she is not satisfied with said report.
  - (iii) After satisfaction Engineer-in-charge will forward the report to Executive Engineer of concerned Regional office of CREDA for approval.
  - (iv) Executive Engineer of concerned Regional office of CREDA shall forward this to

concerned Chief Engineer of Head Office of CREDA.

- (v) The SI shall start work within **15 days** after the date of sanction of work.
- (vi) All the materials required for the supply & distribution of Solar D.C. Induction Cooking Stove as per Work Order issued shall be kept at site in the custody of the SI. CREDA shall not be responsible for any loss or damage of any material during the transportation, supply & distribution.
- (vii) All the electrical works should be done as per various provisions of Indian Electricity Act. The persons engaged for carrying out electrical works should have a valid B-class license or above issued by licensing board of Chhattisgarh.
- (viii) After installation joint inspection will be done in presence of beneficiary, SI and CREDA and after Supply, Installation and Commissioning of Solar D.C. Induction Cooking Stove and its approval from CREDA a JCC will be signed and the claim will be forwarded for payments as per guidelines and procedures of CREDA.
- (ix) Work order/LOI will be given to the chosen System Integrator only after execution of the agreement with CREDA.

5. **VARIATIONS, ADDITIONS & OMISSIONS-**

CREDA shall have the right to alter, amend, omit, split or otherwise vary the quantum of work, by notice in writing to the SI. The eligible SI shall carry out such variation in accordance with the rates specified in the contract so far as they may apply and where such rates are not available; those will be mutually agreed between CREDA and the eligible SI.

6. **INSPECTION -**

- A. The Engineer-in-Charge or his authorized representative(s) shall be entitled at all reasonable times to inspect and supervise and test during Supply, Installation and Commissioning. Such inspection will not relieve the eligible SI from their obligations under this contract.
- B. Material can be inspected before dispatch or in transit by the authorized representatives of CREDA at the factory / godown at the cost of the eligible SI, if desired by CREDA.
- C. CREDA will undertake real time performance and quality test of randomly selected Solar D.C. Induction Cooking Stove and components during the course of execution as per specifications and guidelines to ensure quality and performance of system and components.

7. **COMPLETION OF WORK-**

Time being the essence of contract, the Supply, Installation and Commissioning of the Solar D.C. Induction Cooking Stove shall be completed within the time schedule prescribed in the Work order.

8. **ELIGIBLE SYSTEM INTEGRATOR'S DEFAULT LIABILITY-**

CREDA may by written notice of default to the eligible SI, terminate the contract in circumstances detailed hereunder-

- A. If in the opinion of the CREDA, the eligible SI fails to complete the work within the time specified in the work order or within the period for which extension has been granted by CREDA to the eligible SI.
- B. If in the opinion of CREDA, the eligible SI fails to comply with any of the provisions of this contract.
- C. In the event of CREDA terminating the contract in whole or in part as provided in paragraph (a) above, CREDA reserves the right to engage another eligible SI or agency upon such terms and in such a manner as it may deem appropriate and the eligible SI shall be liable to CREDA for any additional costs or any losses caused to CREDA as may be required for the completion of erection of the Solar D.C. Induction Cooking Stove and or for penalty as defined under this tender document until such reasonable time as may be required for the final completion of the work.



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

9. **FORCE MAJEURE**–

The eligible SI shall not be liable for any penalty for delay or for failure to perform the contract for reasons of FORCE MAJEURE such as act of God, acts of public, enemy, LWE problems, acts of government, cyclone, fires, floods, epidemics, quarantine restrictions, strikes, freight embargoes provided that if SI shall submit delay notice with appropriate cause of delay to the CREDA in writing within **15 days** of force majeure. CREDA shall verify the facts and may grant such extension as facts justify. Delay in supply of any accessories of Solar D.C. Induction Cooking Stove by the related vendors, to whom the tenderer has placed order, shall also not be treated as force majeure.

10. **REJECTION OF WORKS**–

In the event of any of the material supplied/work done by the eligible SI is found defective in material or workman ship or otherwise not in conformity with the requirements of this contract specifications, CREDA shall either reject the material and/or work and advise the eligible SI to rectify the same. **CREDA may impose penalty for such rejection up to the 200% cost of the entire system. Habitual/repeated offenders shall be black listed/debarred to participate in the any Tender/ Activity of CREDA till further orders.** The eligible SI on receipt of such notices shall rectify or replace the defective material and rectify the work free of cost. If the eligible SI fails to do so CREDA may –

- A. At its option replace or rectify such defective materials and/or work and recover the extra cost so involved from the eligible SI plus **15%** service charges of the cost of such rectification, from the eligible SI and/ or terminate the contract for balance work/ supplies with enforcement of penalty **as stated above**.
- B. Defective materials/workmanship will not be accepted under any conditions and shall be rejected outright without compensation. The eligible SI shall be liable for any loss/damage sustained by CREDA due to defective work **with enforcement of penalty as stated above**.

11. **EXTENSION OF THE TIME**–

If the completion of Supply, Installation and Commissioning is delayed due to any reason beyond the control of the eligible SI, the eligible SI shall without delay give notice to the CREDA in writing of his claim for an extension of time. CREDA on receipt of such notice may or may not agree to extend the contract/delivery date of the Solar D.C. Induction Cooking Stove as may be reasonable but without prejudice to other terms and conditions of the contract.

12. **MAKES OF EQUIPMENTS TO BE USED IN THE WORK**–

- A. The Solar Modules, Battery, Controller, Induction Machine shall be **made in India**.
- B. The eligible SI has to ensure that equipment's as per Technical Requirements of guidelines of CREDA as complied with. The eligible SI has also to ensure that he will use only components of approved vendors of CREDA. The material/works for which CREDA/MNRE or BIS or ISI specification is not available, engineer-in-charge of the works will examine and approve the material/works, preferably of all makes on which CREDA has report of satisfactory performance. Test certificates for all major equipment's should be submitted to the engineer-in-charge of the works before installation of the same.
- C. Successful SI upon issue of LOI must submit Manufacture Authorization Form (MAF) From manufacture of Solar Module/Battery/Controller/Induction Machine which it is intending to use during Supply, Installation and commissioning guarantee at least five-year warrantee of Battery, controller, Induction Machine and at least 10-year warrantee on module, before Supply, Installation and commissioning of system. **No payment shall be made if he fails to do so.**

- D. SI Should submit warrantee Agreement of **at least 5 year** for major components i.e. SPV Modules, Battery, Controller, Induction Machine with manufacturer or distributors certified by the manufacturer before Supply, Installation and commissioning of Solar D.C. Induction Cooking Stove .

13. **WARRANTEE PERIOD AND POST INSTALLATION SERVICES-**

- A. The work done/material supplied by the eligible SI should be warranted for satisfactory operation and against any defect in material and workmanship including Battery, Controller, Induction Machine and other balance of equipment's, at least for a period of **5(five) years**, from the date of Supply, Installation and commissioning of Solar D.C. Induction Cooking Stove other works as per scope of work.
- B. Warrantee on SPV Modules shall be for **10 (ten) years** from the date of Supply, Installation and commissioning of Solar D.C. Induction Cooking Stove must be warranted for their output peak watt capacity, which should not be less than **90%** at the end of **10 years** and not less than **80%** at the end of **25 years**.
- C. The above warrantee certificates shall be furnished to the CREDA for approval. Any defect noticed during this period should be rectified by the supplier free of cost upon written notice from CREDA provided such defects may be due to bad workmanship or bad materials used.
- D. The warrantee period shall be extended by the period during which the system remains non-operative due to reasons within control of the eligible SIs.
- E. This warrantee must be an unconditional onsite warrantee and the eligible SI will have to replace the defective material within **7days** positively from the date of information given to him.
- F. Care should necessarily be taken to make the Solar D.C. Induction Cooking Stove operational, once the reporting of the fault/non-operational status is done, within a week. If the Solar D.C. Induction Cooking Stove is not made operational within **7 days** CREDA may rectify the same at the cost of SI and the warrantee period shall be extended for a month for the same.
- G. System Integrators shall have to establish their service stations in the allocated area and shall have to keep sufficient quantity of spares and man power to ensure proper service network for taking care of smooth functioning of Solar D.C. Induction Cooking Stove installed by them. SI shall have to give a toll free number to register complaints.

14. **TERMS OF PAYMENT-**

The following terms of payment shall apply for the tender -

- A. **97%** of the cost of the Solar D.C. Induction Cooking Stove as per the work order after satisfactory supply, installation, commissioning & performance test of the Solar D.C. Induction Cooking Stove at site with proper handing over. Payment will be done after receipt of Beneficiary contribution (if required) to CREDA.
- B. Balance **3%** of the cost shall be retained by CREDA as Performance Security for a period of **60 months**.
- C. GST shall be paid extra as applicable on the date of billing. Any change in GST shall also be applicable during the period of contract.

15. **PENALTY FOR DELAY IN COMPLETION OF CONTRACT-**

If the eligible SI fails to complete the assigned work within the schedule time specified in the work order or any extension granted there to, CREDA will recover from the SI as penalty a sum of **One per cent (1%)** of the system price excluding GST/Tax for every delayed system per month. For this purpose, the date of taking over shall be reckoned as the date of completion. The total penalty shall not exceed **5% (Five Per cent)** of the cost.



However, imposition of such penalty shall be discretion of CREDA. This penalty may be decrease, increase or waived off due to various justified reasons on ground with recommendations of field staff on record. Period declared as lockdown or local quarantine /containment zones due to Covid-19 pandemic shall be waived off for the purpose of penalty.

Review of the progress of supply, installation, and commissioning & performance test of the Solar D.C. Induction Cooking Stove allocated to SIs shall be done time to time by CREDA and if the progress of supply, installation, and commissioning is found unsatisfactory, the allocation of entire remaining undistributed System or their part of can be re-allocated to other SI as per discretion of CREDA.

**16. SECURITY DEPOSIT (SD)–**

- A. The Earnest Money shall be retained by CREDA up to the duration of validity of tender, after agreement is done 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.
- B. Beside this 3% of the cost shall also be retained as SD during the five years of warrantee period. No interest shall be payable on the SD.
- C. Period for which EMD and SD are to be retained may be extended in case the warrantee period is extended due to non-performance of the system.
- D. All costs of damages and delays for which the eligible SI is liable to the CREDA will be deducted from any money due to the eligible SI including the security deposit of any project under CREDA.

**17. INSURANCE–**

- A. The eligible SI shall arrange insurance coverage for the materials and Solar D.C. Induction Cooking Stove at his/ beneficiary's custody for the work under execution and successful installation and subsequent handover to the beneficiary. The eligible SI shall take up insurance or such other measures for the manpower so as to cover the claim for damage arising under workmen's compensation Act and other applicable State/Central laws. CREDA shall not bear any responsibility on this account.
- B. Eligible SI shall arrange for insurance coverage supply, installation & commissioning of the Solar D.C. Induction Cooking Stove during COMC period i.e. for **05 years** from the date of hand over to beneficiary. Insurance should cover for damage and theft. In case of such incidence, SI must replace the lost/damaged part within **7 days** from the date of intimation.

**18. ELIGIBLE SI'S RESPONSIBILITY–**

Notwithstanding anything mentioned in the specifications of subsequent approval or acceptance of the Solar D.C. Induction Cooking Stove by CREDA, if any, the ultimate responsibility for satisfactory performance of the entrusted work shall rest with the eligible SI. If in any case the eligible SI does not complete the work as per the sanction orders issued to them then CREDA may take over the task & complete the project at the risk and cost of eligible SI.

**19. RESPONSIBILITY TO RECTIFY THE LOSS AND DAMAGE–**

If any loss or damage occurs to the work or any part thereof or materials/system/equipment's for incorporation therein the period for which the eligible SI is responsible for the cause thereof or from any cause whatsoever, the eligible SI shall at his own cost rectify/replace such loss or damage, so that the permanent work confirms in every respect with the provision of the contract to the satisfaction of the Engineer. The eligible SI shall also be liable for any loss or damage to the work/equipment's occasioned by him in course of any operation carried out to him during performing the contract.

**20. RESPONSIBILITY TOWARDS THE WORKMAN OR OUTSIDERS-**

- A. The eligible SI shall have to take insurance coverage from any authorized Insurance Company against Workmen compensation due under Workmen Compensation Act and submit copy of the insurance document before issuance of Work order.**
- B. The eligible SI shall ensure all safety measures during execution and repairs of the work. CREDA, will, in no case be responsible for any accident fatal or non-fatal, caused to any workman or outsider in course of transport or execution or repairs of work.**
- C. All the expenditure including treatment or compensation will be entirely borne by the eligible SIs. The eligible SI shall also be responsible for any claims of the workers including PF, Gratuity, ESI & other legal obligations.**
- D. CREDA shall have rights to deduct such claims of payments from SI in case of complaints of such violations.**

**21. NON-ASSIGNMENTS-**

The eligible bidder shall not assign or transfer the work orders issued as per this contract or any part thereof without the prior approval of CREDA.

If eligible bidder transfer/assigned/sublet full or any part of work allocated to him without prior permission from CREDA in writing to any third party shall be liable to debar/black listed from any Tender/Activity of CREDA till further orders.

**22. CERTIFICATES NOT TO AFFECT RIGHTS OF CREDA-**

The issuance of any certificate by CREDA or any extension of time granted by CREDA shall not prejudice the rights of CREDA in terms of the contract nor shall they relieve the eligible SI of his obligations for due performance of the contract.

**23. SETTLEMENT OF DISPUTES THROUGH ARBITRATION-**

- A. Except as otherwise specifically provided in the contract, all disputes concerning questions of fact arising under the contract shall be decided by the Chief Executive Officer (CEO), CREDA provided a written appeal by the eligible SI is made to CREDA. The decision of the CEO, CREDA shall be final and binding to the all concerns.**
- B. Any dispute or difference including those considered as such by only of the parties arising out of or in connection with the contract shall be to the extent possible be settled amicably between the parties. If amicable settlement cannot be reached, then all disputed issues shall be settled by arbitration.**

**24. LAWS GOVERNING CONTRACT-**

The contract shall be constituted according to and subject to the Laws of India and jurisdiction of the Court of Bilaspur, Chhattisgarh.

**25. LANGUAGE AND MEASURES-**

All documents pertaining to the Contract including specifications, schedules, notice correspondences, operating and maintenance instructions, drawings or any other writings shall be written in English / Hindi language. The metric system of measurement shall be used in this contract.

**26. CORRESPONDENCE -**

- A. Any notice to the eligible SI under the terms of the contract shall be served by registered mail to the registered office of the eligible SI or by hand to the authorized local representative of the eligible SI and copy by post to the eligible SI's principal place of business.**
- B. Any notice to CREDA shall be served to the Chief Engineer, CREDA Raipur in the same manner.**

**27. SECRECY-**

The eligible SI shall treat the details of the specifications and other documents as private and confidential and they shall not be reproduced without written authorization from CREDA.

**28. AGREEMENT-**

The successful eligible SI shall have to enter into an agreement with the CREDA in the approved contract agreement form within **15 days** of the receipt of call from CREDA.

**29. DECLARATION OF CONFLICT OF INTEREST-**

**A.** The bidder shall not be permitted to Bid for the work if the section of HO CREDA (responsible for implementation of work) in which his near relative is posted. Furthermore, the successful bidder shall not be given work in the district in which his near relative is posted. The bidder shall also intimate the names of his near relatives working in the CREDA. Bidder shall also intimate the name of persons who are working with him in any capacity and who are near relatives to any employee in CREDA. Any breach of this condition by SI would render himself liable to be blacklisted for three years and removed from approved list of SI.

Note: - By the term near relatives are meant Wife, Husband, Parents and son, Brother, Sister, Brother-in-law, Father-in-law, and Mother-in-law etc.

**B.** Bidder must produce an affidavit (Annexure-III) stating the names of retired/removed employee of CREDA (if any) in his employment who retired /removed within last two years, if in case there is no such person in his employment, his affidavit should clearly state this fact. This affidavit is mandatory, if it is not produced along with the bid, the bid shall be rejected.

**30. TENDER EVALUATION CRITERIA-**

- A.** Offers of only those parties, who are found qualified based on Eligibility Criteria and Techno-commercial Bid, will be taken into further consideration and financial bid of only those parties who are qualifying the criteria of Techno-commercial Bid will be opened.
- B.** Other things being equal, the lowest rates shall normally be preferred, but CREDA shall have rights and liberty to amend/lower the rates.
- C. Conditional tenders shall not be accepted.**
- D.** However, CREDA shall have rights and liberty to call any /other parties to work on approved rates as and when requires in accordance with quantum of work and scheduled time limits for completion of targets.

**31. EVALUATION OF PRICE BID-**

Price bid shall be evaluated on the basis of Quoted rates. Lowest rate of Solar D.C. Induction Cooking Stove shall be considered, however CREDA shall have discretionary power to amend/lower the rates.

**32. ALLOCATION OF TARGETS AND AREA OF WORK-**

- A.** L-1 Bidder will be given preference for allocation of work. Maximum 25% of total target will be allotted to L-1 Bidder
- B.** Subsequently all other eligible bidders will be awarded with equal number of work; quantity may change according to number of sanctioned works. Further allocations shall be made on the basis of their performance (both past as well as present performance) subsequently. However, CREDA has sole discretion to award any number of works to any eligible bidder.
- C.** CREDA reserve rights to increase or decrease quantities to be allocated to the eligible bidders on the basis of the availability of stock with the bidder and time limits for the projects.
- D.** CREDA has full discretion to allot the work to any eligible bidder anywhere in the State of Chhattisgarh.
- E. Review of the progress of supply, installation & commissioning of Solar D.C. Induction Cooking Stove allocated to SIs shall be done time to time by CREDA and if the progress of supply, installation & commissioning is found unsatisfactory, the allocation of entire remaining undistributed or their part of can be re-allocated to other SI as per discretion of CREDA.**

33. **BID REJECTION-**

If financial bid of a bidder has been opened on the basis of technical bid of a bidder which has been determined to be substantially responsive to the bidding document and in latter stage it is found that bidder does not meet the eligibility criteria or the technical bid is found substantially non-responsive, CREDA reserves rights to reject such bid of a bidder any time.

We (on behalf of Eligible SI/Tenderer) have read all the above stated details & accept to comply with it in total

(Name, Signature & Seal of the Tenderer)

## **SECTION - 3**

### **SCOPE OF WORK FOR SOLAR D.C. INDUCTION COOKING STOVE**

The scope in brief will be as follows-

1. Identifying of Interested beneficiary, supply, installation & commissioning of solar D.C. Induction Cooking Stove as per design and specifications approved by CREDA, on turnkey basis. Bidders shall have to take approval of the engineering documents, Bill of Materials and samples from CREDA prior to commencement of the work. Five years' unconditional onsite warrantee for manufacturing defects shall be required for each of the system after installation and proper handing over.
2. The scope of work shall also include the followings:
  - Work order shall be issued only after submitting required certificate and all other information. SI shall furnish all necessary information to beneficiary for D.C. Induction Cooking Stove, Warrantee, Do & Don'ts etc. so as to avoid further misunderstandings and disputes.
  - Detailed planning of time bound smooth execution of project.
  - Providing User Manuals and Warrantee Cards to beneficiary / CREDA.
  - SI shall have to submit JCCs within 15 days of, supply, installation & commissioning of Solar D.C. Induction Cooking Stove in District Office of CREDA.
  - Unconditional onsite warrantee for manufacturing defects for Five years faultless operation, assure inventory for maintenance.
  - Providing Prompt Service Facilities to customers/ beneficiaries.
  - Risk liability of all personnel associated with implementation and realization of the project.
  - Training of at least two persons nominated by user, on the various aspects of installation and Maintenance of the offered system after proper handing over of the system.
  - The eligible SI shall maintain sufficient inventory of the spares to ensure that the system can be made functional within 5 days from the communication of breakdown of the system during the warrantee period.
  - The contractor shall run the system on trial basis and shall closely monitor the performance of the system before handing over the system.
  - System Integrators shall have to establish their service stations in the allocated area and shall have to keep sufficient quantity of spares and man power to ensure proper service network for taking care of smooth functioning of Systems installed by them. SI shall have to give a toll free number to register complaints.

**TECHNICAL SPECIFICATION OF SOLAR D.C. INDUCTION COOKING STOVE****GENERAL SPECIFICATION:**

<b>Type of System</b>	<b>Minimum 24V/ 1KWp/700W</b>
Solar Module	24V,1000Wp (3X335Wp)
Operating Voltage	24V ( Nominal System Voltage)
Battery Capacity	25.6V,160 Ah, 4000wAH Li-Ferro Phosphate
Cell Type	Prismatic/ Cylindrical
Charge Controller Type	MPPT 24V 30 A
Load	1X 24V 700 W DC Induction Cooktop
Average Duty Cycle	4 Hours Per Day + 2 Hours next day autonomy
Atmospheric Operating temperature	0 to 50 Degree Celsius
Mounting	Floor Mounting with C- Channel Structure
Indication	Solar Charging Battery Low
Enclosure	The CCU and Battery assembled in suitable metal enclosures provision for Charging from Module and load output, the charging unit will have all indication, ON/OFF Switch. The metal enclosure trolley should be covered from all side with proper ventilation and cable entry. Front side should be openable with a lock system with proper space for utensils
<b><u>Utensils:</u></b>	Container/Tope/Cookware (4 L/25.8 cm Dia) - 1
Flat surface suitable for induction	Container/Tope/Cookware (1.5 L/25.8 cm Dia) - 1
	Frying Pan (1.5 L/25.8 cm Dia) - 1
	Tawa (1.0 L/25.8 cm Dia) - 1
	Kadahi (3.5 L/25.8 cm Dia) - 1

**SPV MODULE:****1.1 Type and Quality:**

The PV module should have Crystalline Silicon Solar Cells and must have a certificate of testing conforming to IEC 61215:2016 / BIS 14286 from a NABL or IECQ accredited Laboratory. The capacity should be minimum 330Wp Multi/Poly Crystalline/MNRE approved solar modules with 72 cells with minimum 17% Module Efficiency. The modules should be tested and certified by a Govt. of India authorized test centres or should conform to relevant IEC standard as per MNRE guidelines. Offered module shall have a power discharge warranty of 90% of the rated power for 10 years. The rated discharge power and Efficiency of any supplied module shall not be less than the specified power rating and Efficiency of the modules, in any case. Every module should have suitable by-pass diode at its terminal box. The SPV Modules must be installed in such a way so as to deliver proper voltage and current to ensure desired power discharge as per specifications of CREDA for the size of SPVPP ordered. Modules with Cut Cells shall not be permitted. Indigenously manufactured PV module should only be used. The terminal box on the module should have a provision for opening it for replacing the cable, if required.

1.2 The modules used shall have following specifications:

Type :Poly crystalline/ Multi crystalline/  
MNRE approved Solar Modules  
Specification and standard : Confirming to Prevailing MNRE Guidelines

PARAMETERS	SPECIFICATIONS
Solar cell/Module type	Polycrystalline with RFID
Rated Power	335Wp
Power Tolerance	+2.5%
No. of solar cells per module	72
Peak power voltage (Vmp) at 25 Deg C	38V
Peak Power current (Imp) at 25 Deg C	8.7A
Open circuit voltage (Voc) at 25 Deg C	46.3V
Short circuit current (Isc) at 25 Deg C	9.24A
Weight of each module	20.7±0.5 kg
Operating Temperature range	-40 Deg Celsius and +85 Deg Celsius
Temperature coefficient Pmax	-0.41%/Deg Celsius
Temperature coefficient Voc	-0.31%/Deg Celsius
Temperature coefficient Isc	0.052%/Deg Celsius
NOCT (Nominal operating cell temp.)	44 ± 2 Deg Celsius
Standard	IEC: 61215:2016
Module Efficiency	17.01%
Module size	1956 x 992 x 36 mm(Typical)
Solar module frame material	Aluminium
Leading power output	10 Years – 90%, 25years – 80.1%
Certifications	IEC 61215:2016

1.3 The PV modules must conform to the latest edition of any of the following IEC/ equivalent BIS Standards for PV module design qualification and type approval: Crystalline Silicon Terrestrial PV Modules: IEC 61215:2016/IS14286

1.4 **IDENTIFICATION AND TRACEABILITY –**

Each PV module must use a RF identification tag (RFID), which must contain the following information:

- (i) Name of the manufacturer of PV Module
- (ii) Name of the Manufacturer of Solar cells
- (iii) Month and year of the manufacture (separately for solar cell and module)
- (iv) Country of origin (separately for solar cells and module)
- (v) I-V curve for the module
- (vi) Peak Wattage, Imp, Vmp and FF for the module
- (vii) Unique Serial No and Model No of the module
- (viii) Date and year of obtaining IEC PV module qualification certificate
- (ix) Name of the test lab issuing IEC certificate



- (x) Other relevant information on traceability of solar cells and module as per ISO 9000series
- (xi) Moreover, there should be a Name Plate fixed inside the module which will give Name of the manufacturer or Distinctive Logo
  1. Name of the Scheme
  2. Name of SNA i.e.CREDA
  3. Model Number
  4. Unique Serial Number
  5. Year of Manufacture
  6. A distinctive serial number starting with NSM will be engraved on the Frame of the modules or screen printed on the tedlar sheet
  7. The RFID must be inside of module lamination. The module laminate, but must be able to withstand harsh environmental conditions
- 1.5 The panel should be supplied with CREDA Logo in the form of sticker on the back of SPV panel or duly laminated inside the glass of solar module with the remark "Manufactured for CREDA". Inter connections of solar modules should be through good quality male female joint. Name of manufacturer, S. No. of Module & manufacturing year should be clearly fixed inside the glass lamination of every module. Back label should be affixed behind every module which should clearly state the specifications & capacity of the module
- 1.6 **The size of Module Frame and the thickness of Glass, Back Sheet and EVA Sheet must be of the maximum size with only positive tolerance of applicable IEC standards. Modules should be of indigenous make and the efficiency of SPV Modules must be above 17%**

## **2. MECHANICAL COMPONENTS: MODULE MOUNTING STRUCTURE(MMS):**

Module Mounting Structure should be either Ground Mounted High Rise or Roof top, depending upon site conditions, availability of space. Structure must have theft proof arrangements with the use of hot dip galvanized min thickness of coating should be 80 micron with proper inclination. The panel frame structure should be capable of withstanding a minimum wind load of 150 Km per hour, after grouting and installation. It should not hide any portion of the photovoltaic circuit encapsulated in the lamination of the SPV module, there by unaffacting the efficiency & rating of the SPV modules. Anti-Theft Nut Bolts of SS 304 with washers) should also be used for better theft proofing along with MMS.

## **3. BATTERY: LITHIUM IRON PHOSPHATE BATTERIES (LFP)**

- I. The battery will have a minimum rating of 25.6V, 160 Ah.
- II. Min 80% of the rated capacity of the battery should be between fully charged and load cut off conditions
- III. Lithium Iron Phosphate Rechargeable batteries should be only used
- IV. The nominal voltage of the battery should be 25.6V
- V. Cells should conform to latest BIS 16046 Part II and Battery Pack must confer to IS- 16047 Part-3.
- VI. The charge and discharge current should be 40 A or 3C
- VII. Charging should be done on regulated DC, CCCV of 29.4V
- VIII. Self-discharge should be less than 2% per month
- IX. The battery must have more than 2500 charge cycles at 80%DOD

- X. The following are the details of the Battery Management System (BMS) for the Battery:
- The BMS should be a 8S PCM Protection
  - Overcharge protection
  - Over-discharge protection
  - Over current protection
  - Short circuit protection
  - High Voltage
  - The BMS should be capable of cell balancing preferably non- dissipative cell balancing.
  - The BMS should be able to monitor the cells in the battery
  - All protections need to be resettled, not compromise

- XI. Battery Pack Shall have monitoring display(OLED), Data recording via Memory card, and USB port for Mobile charging, PWM Cooling FAN with active temperature dissipation as per load wattage and charging current

**OLED Display Parameter**

- Battery Pack voltage (0-100VDC)
- Battery Charge and Discharge Current (0-100A)
- Time to Charge (Hrs)
- Battery discharge Power Upto 1000W
- Consumed power in KWH
- SPV Voltage (0-100VDC)
- Battery Temperature (0°C to 70°C)
- Cycle Count as per consumed KWH with considering 80% DOD
- Cooling Fan Modes as per load wattage; M1-Power >250W; M2- Power >350W; M3- Power>450W; M4- Power> 450W; M4- Power> 550W; M5- Power> 650W
- USB Port- 5V 500mA for Mobile Charging.

**Data Recording Parameter-** Data Recording Should be done on Memory card with I2C protocol. Recorded Data shall be extracted on excel file.

- Battery Voltage
- Battery current
- Battery SOC
- Battery Cycle count
- Battery Temperature

- XII. Battery Cabinet Should be of IP41

S. No	Parameters	Specification
1	Battery Type	Lithium Iron Phosphate (LiFePO4)
2	Nominal Voltage	25.6 V
3	Nominal Capacity	160 Ah

S. No	Parameters	Specification
4	Cell Type	Prismatic/ Cylindrical
5	Energy (Wh)	4096Wh
6	Efficiency	99%
7	BMS	BMS with parameter monitor, .via display.
8	Idle Mode	<100 uA
9	Self-discharge	< 3% per month
10	Recommended Charge Current	5-50 A
11	Maximum Charge Current	50 A
12	Recommended Charge Voltage	28V
13	BMS Charging Voltage Cut off	29.6V
14	Charge Temperature	-4 to 113 °F (-20 to 45 °C)
15	Discharge Temperature	-4 to 140 °F (-20 to 60 °C)
16	Maximum Continuous Discharge Current	30A
17	Peak Discharge current	100A for 3C for 3sec
18	Maximum depth of Discharge	>2500 Charge Cycles at 80% DOD
19	Certifications	BIS 16046 Part II and Battery Pack must confer to IS- 16047 Part-3.
20	BMS Protections	Overcharge Protection
		Over-discharge Protection
		Over current Protection
		Short circuit Protection
		Over Temperature Protection
21	OLED Display parameter.	<ul style="list-style-type: none"> <li>• Battery Pack voltage (0-100VDC)</li> <li>• Battery Charge and Discharge Current (0-100A)</li> <li>• Time to Charge (Hrs)</li> <li>• Battery discharge Power Upto 1000W</li> <li>• Consumed power in KWH</li> <li>• SPV Voltage (0-100VDC)</li> <li>• Battery Temperature (0°C to -70°C)</li> <li>• Cycle Count as per consumed KWH with considering 80% DOD</li> <li>• Cooling Fan Modes as per load wattage; M1-Power &gt;250W; M2- Power &gt;350W; M3- Power&gt;450W; M4- Power&gt; 450W; M4- Power&gt; 550W; M5- Power&gt; 650W</li> </ul>
22	Data recording	<p>Data to be recorded on memory card.</p> <ul style="list-style-type: none"> <li>• Battery Voltage</li> <li>• Battery current</li> <li>• Battery SOC</li> <li>• Battery Cycle count</li> <li>• Battery Temperature</li> </ul>
23	USB port	5V/500mA USB for Mobile charging.

**3. SOLAR INDUCTION COOKTOP**

S. No	Details	Parameters
1	The Rated Voltage:	24V DC
2	The Rated Power	700 W; adjustable from 700W to 100W by touch key
3	Starting current	30A Max
4	Working Current:	25A to 30 A
5	The Surface Temperature when power mode	270 °C
6	Dry Heat Temperature( empty pot)	300 °C
7	Running time in hrs	3.5 -4hrs
8	Cooking System	Micro controller based
9	Control type	Touch screen
11	Housing top material	ABS
12	Housing bottom Material	PP
13	Fan Specification	2200 RPM
14	Fan Type	Plastic
15	Heating coil type	Electro Magnet coil
16	Top Plate	Crystal Glass
18	Time required to boil one liter water	10-15 minutes
19	Battery Capacity	25.6 160AH
20	Solar Panel	335X 3(1005kw)
21	Utensil Type	Compatible to induction cooking
22	Maximum food load capacity	1-3Kg

Solar Induction stove shall comply with BIS/ISI standards and certification must be done in any Govt. recognised lab/ NABL accredited lab/any Govt Institute such as NIT etc.

**4. MPPT CHARGE CONTROLLER**

S. No	Parameter	Specification
1	Nominal Battery Voltage	25.6V Lithium Iron Phosphate (LiFePO4)
2	Charge Controller Type	Maximum Power Point Tracking (MPPT)
3	Solar Charging Current	30A
4	Load Current	30A
5	Solar Input Voltage	45V(VOC) and 35V (VMP)
6	Self-Consumption	<20mA
7	Efficiency	>90%
8	Temperature Compensation	3mV/ oC
9	Indications	<ul style="list-style-type: none"> <li>• Green for Charging under process</li> <li>• Red for Battery Low / Fault</li> </ul>
10	Terminations	Screw Type Terminals Blocks

11	Operating Temperature	0 to 50 Deg C (No de-rating of the unit) and 95% RH
12	Battery Voltage Settings	Battery Charging Voltage 28.00 V $\pm$ 0.40V 22.5V $\pm$ 0.40V Battery Low 22.5V $\pm$ 0.40V Indication\
13	Protections	<ul style="list-style-type: none"> <li>• Transient / Surge</li> <li>• Over Charging</li> <li>• Load Short Circuit/Overload - Auto shutdown and restart</li> <li>• Solar and Battery Reverse</li> </ul>

#### A. ELECTRONICS

- I. Electronics should operate at 24V and should have adequate temperature compensation arrangement for proper charging of the battery throughout the year
- II. Necessary lengths of Teflon wires / cables, switches and fuses should be provided
- III. The voltage drop from module terminals to the battery terminals should not exceed 1.0 volts including the drop across the diode and the cable when measured at maximum charging current.
- IV. The PCB containing the electronics should be capable of solder free installation and replacement

#### B. ELECTRONIC PROTECTIONS

- The system should have protection against battery overcharge, deep discharge condition
- Adequate protection should be provided against battery reverse polarity
- Fuses should be provided to protect against short circuit conditions
- Protection for reverse flow of current through the PV module(s) should be provided

#### C. INDICATORS

- The system should have two indicators Green and Red
- The green indicator should indicate the charging under progress and should glow only when the charging is taking place. It should stop glowing when the battery is fully charged.
- Red indicator should indicate the battery "Load Cut Off" condition

#### D. HOUSING / ASSEMBLY:

1. The BMS, Charge Controller FAN should be in built in battery enclosure with proper ventilation.
2. A battery cabinet should have proper SPV and Induction stove connection point, along with lifting handles.
3. A complete Metal enclosure shall be provided for encapsulating battery pack, Induction stove, and Utensils.
4. Do's and Don'ts should be written/ printed on front door in Hindi language.
5. The metal enclosure Trolley should be covered from all side with proper ventilation and cable entry. Front side of metal enclosure should be openable with a lock system with proper space for utensils
6. The enclosure should with stand the suitable load and properly wired.
7. Powder coating shall be rust proof to avoid rusting by rinsed water during cooking.
8. The enclosure should be powder coated and with CREDA logo

#### E. WARRANTY

- (i) The Solar induction cook stove including Battery will be warranted for a period of 5 years from the date of supply
- (ii) The PV module(s) will be warranted for a minimum period of 25 years from the date of supply. PV modules used in Solar Induction Cooking Stove must be warranted for their output peak watt capacity, which should not be less than 90% at the end of Ten (10) Years and 80% at the end of Twenty-five (25) years
- (iii) The Battery should be warranted for a period of 5years (Output capacity should be not less than 60% at end of five years)

- (iv) The Warranty Card to be supplied with the system must contain the details of the system. The manufacturers can also provide additional information about the system and conditions of warranty as necessary

F. **OPERATION and MAINTENANCE MANUAL**

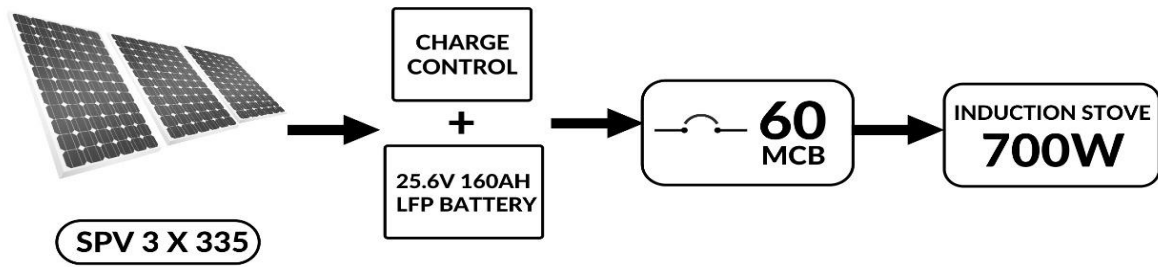
An Operation, Instruction and Maintenance Manual, in English and the local language, should be provided with the Solar Induction Cooking Stove. The following minimum details must be provided in the Manual:

- Basic principles of SPV, LiFePO4 battery and Induction stove.
- A small write-up (with a block diagram) on Solar Induction Cooking Stove - its components, PV module, battery, electronics and expected performance
- Significance of indicators
- Type, Model number, voltage & capacity of the battery, used in the system
- Clear instructions about mounting of PV module(s)
- Clear instructions on regular maintenance and troubleshooting of the Solar Induction Cooking Stove
- DO's and DONT's must be screen/laser printed on metal trolley on front side in Hindi Language
- Name and address of the contact person for repair and maintenance

# DRAWING

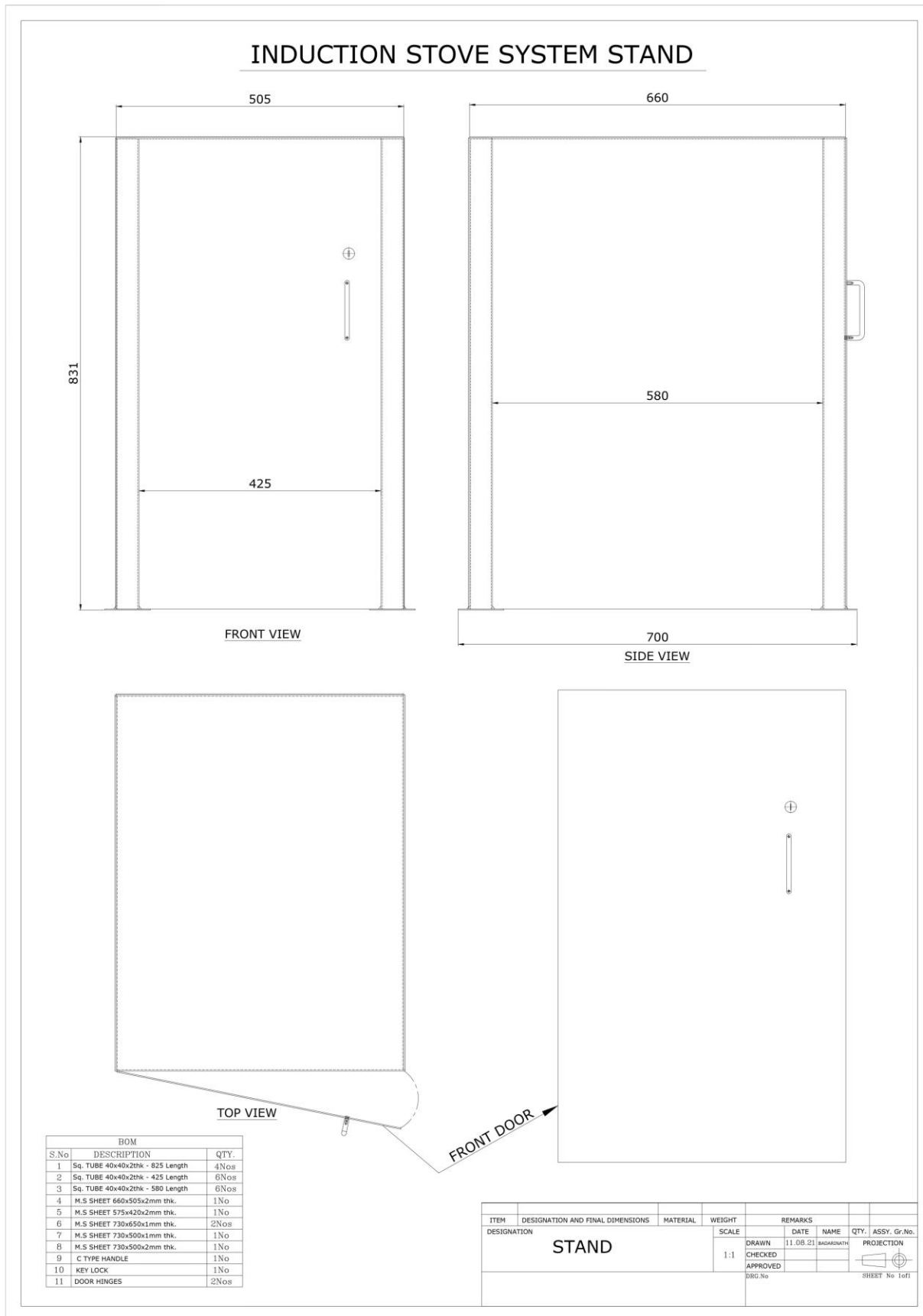
## Electrical Drawing

### Induction Stove System :



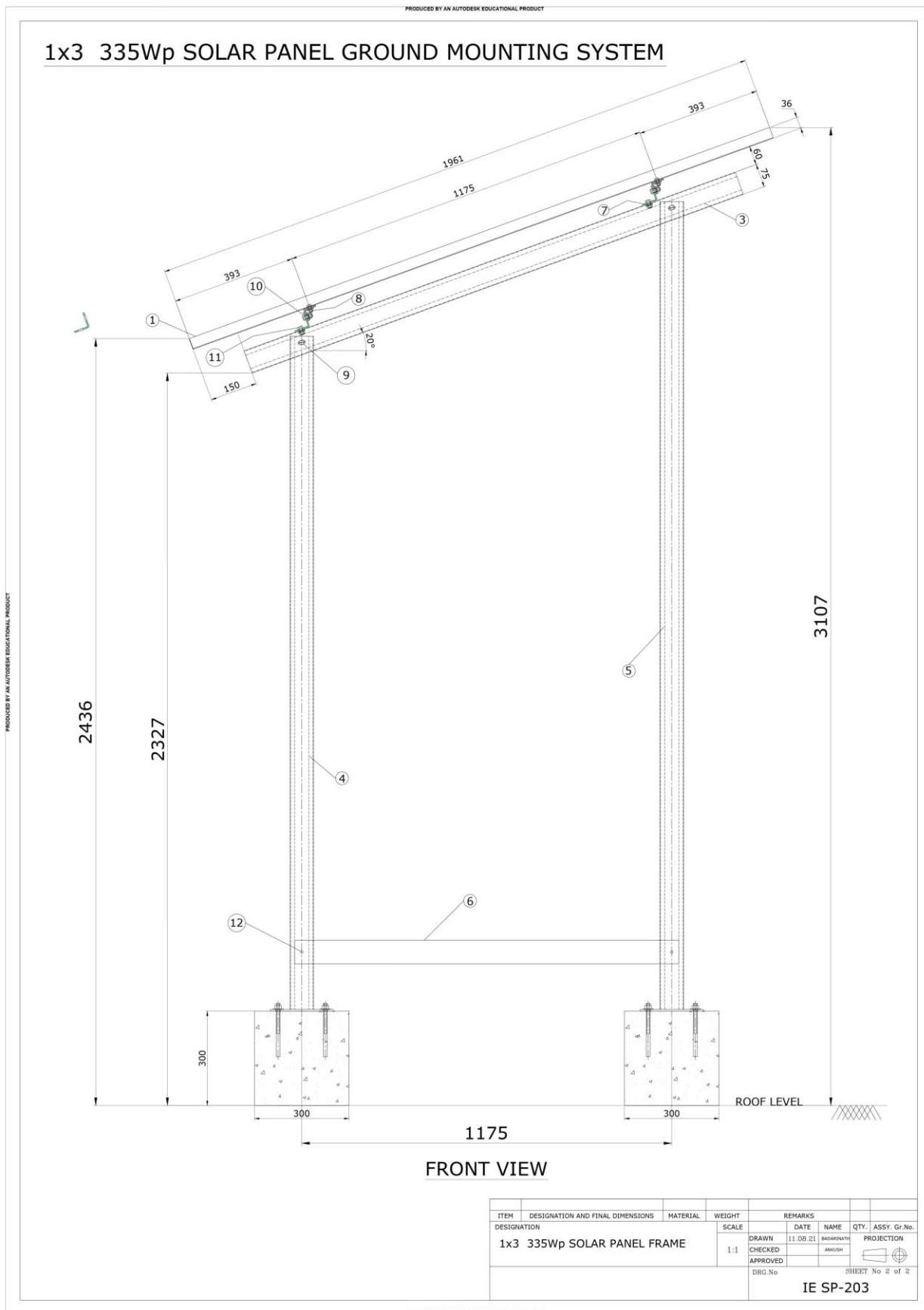


# Induction Stove Stand



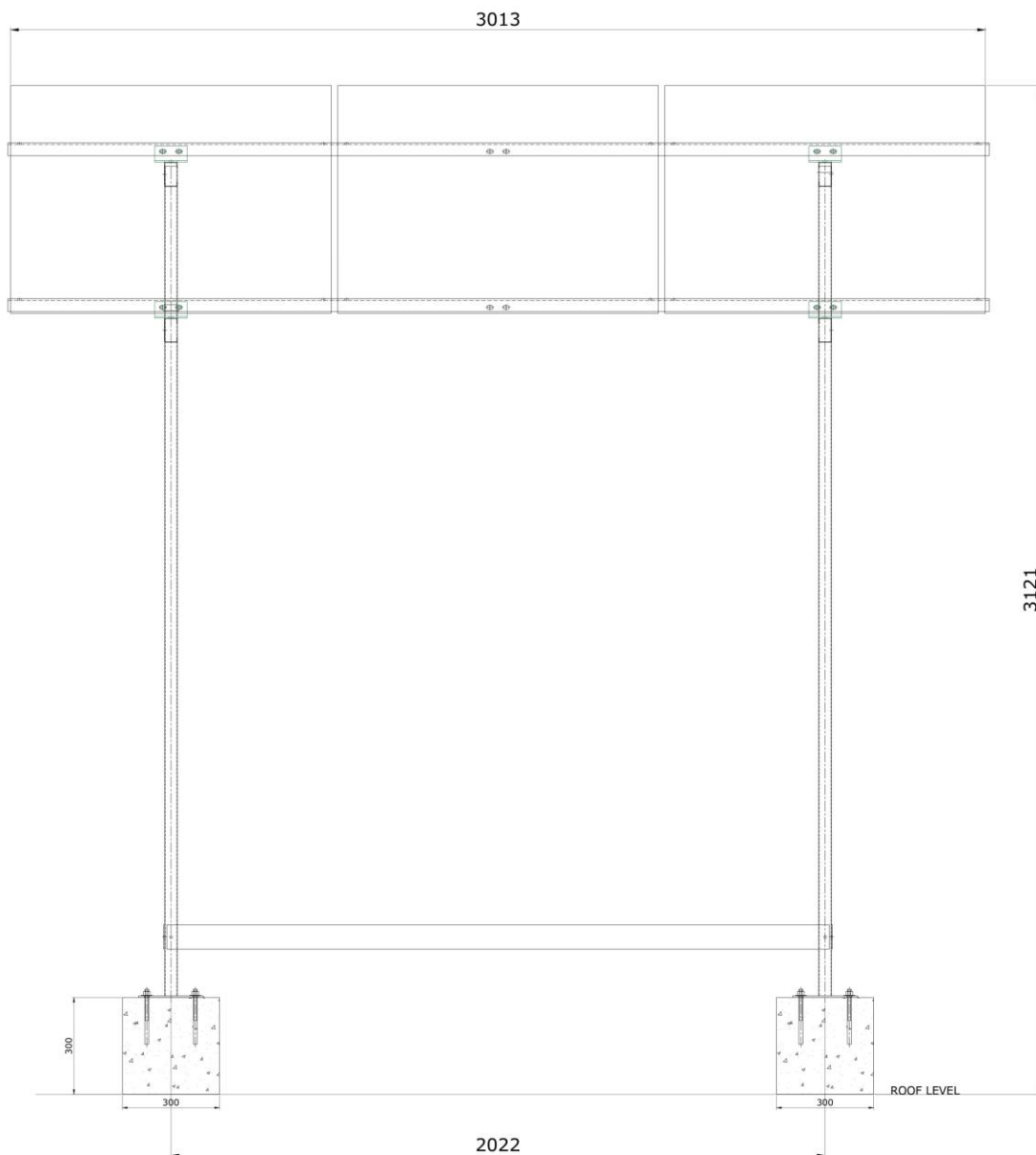
# Solar panel structure

## A. Ground Mounted- High rise



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### 1x3 335Wp SOLAR PANEL GROUND MOUNTING SYSTEM



BOM

S.No	DESCRIPTION	QTY.
1	335Wp SOLAR PANEL	3Nos
2	PURLOIN 40x40x5-3033 Long	2Nos
3	RAFTER 75x40x2-1660 Long	2Nos
4	FRONT LEG 75x40x2x602 Long	2Nos
5	BACK LEG 75x40x2x1030 Long	2Nos
6	FLAT 1220x75x3 thk	4Nos
7	L CLEAT 50x50x5thk 100 Long	4Nos
8	SS-304-HEX M6*25mm BOLT WITH NUT, 1 STAR WASHER AND 2 PLANE WASHERS WITH 8.5mm ID & 18.0 mm OD	12Nos
9	HDC-HEX M12*40mm BOLT WITH NUT, 1 SPRING WASHER AND 2 PLANE WASHERS	4Nos
10	SS-304-HEX M10*25mm BOLT WITH NUT AND 2 PLANE WASHERS WITH 13.5mm ID & 36.0 mm OD	8Nos
11	SS-304-HEX M10*20mm BOLT WITH NUT AND 2 PLANE WASHERS WITH 10.5mm ID & 23.0 mm OD	4Nos
12	SS-304-HEX M6*20mm BOLT WITH NUT AND 2 PLANE WASHERS WITH 10.5mm ID & 23.0 mm OD	8Nos

SIDE VIEW

ITEM	DESIGNATION AND FINAL DIMENSIONS	MATERIAL	WEIGHT	REMARKS				
1x3 335Wp SOLAR PANEL FRAME				SCALE	DATE	NAME	QTY.	ASSY. Gr.No.
				1:1	11.08.21	BADARINATH		
				CHECKED		ANUSH		
				APPROVED				
				DRG.No	SHEET No 2 of 2			
				IE SP-203				

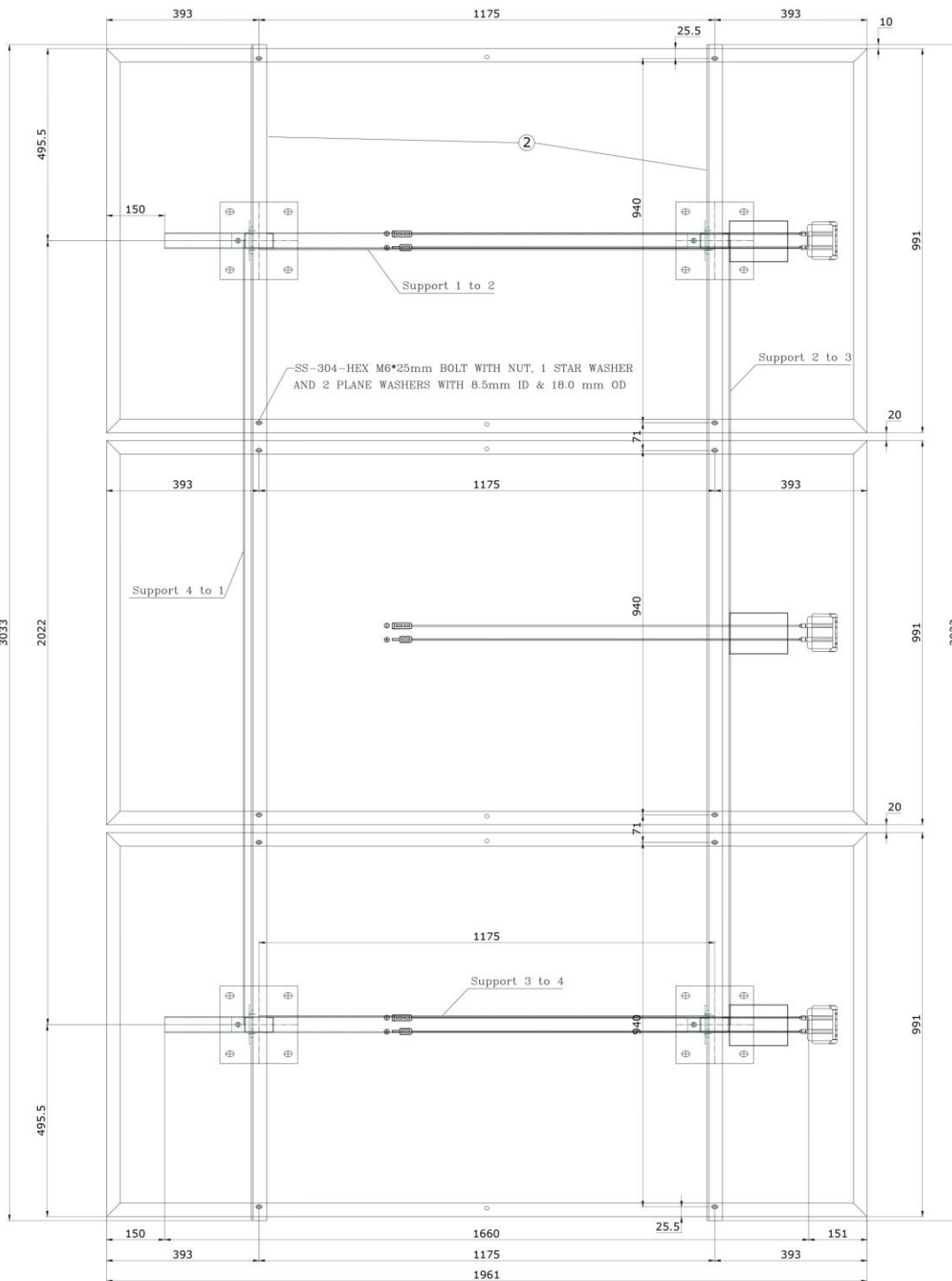
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### 1x3 335Wp SOLAR PANEL GROUND MOUNTING SYSTEM



TOP VIEW

ITEM	DESIGNATION AND FINAL DIMENSIONS	MATERIAL	WEIGHT	REMARKS			
DESIGNATION	1x3 335Wp SOLAR PANEL FRAME			SCALE	DATE	NAME	QTY. ASSY. Gr.No.
				1:1	11.08.21	BADARINATH	
				CHECKED		ANUSH	PROJECTION
				APPROVED			
				DRG.No			SHEET No 2 of 2

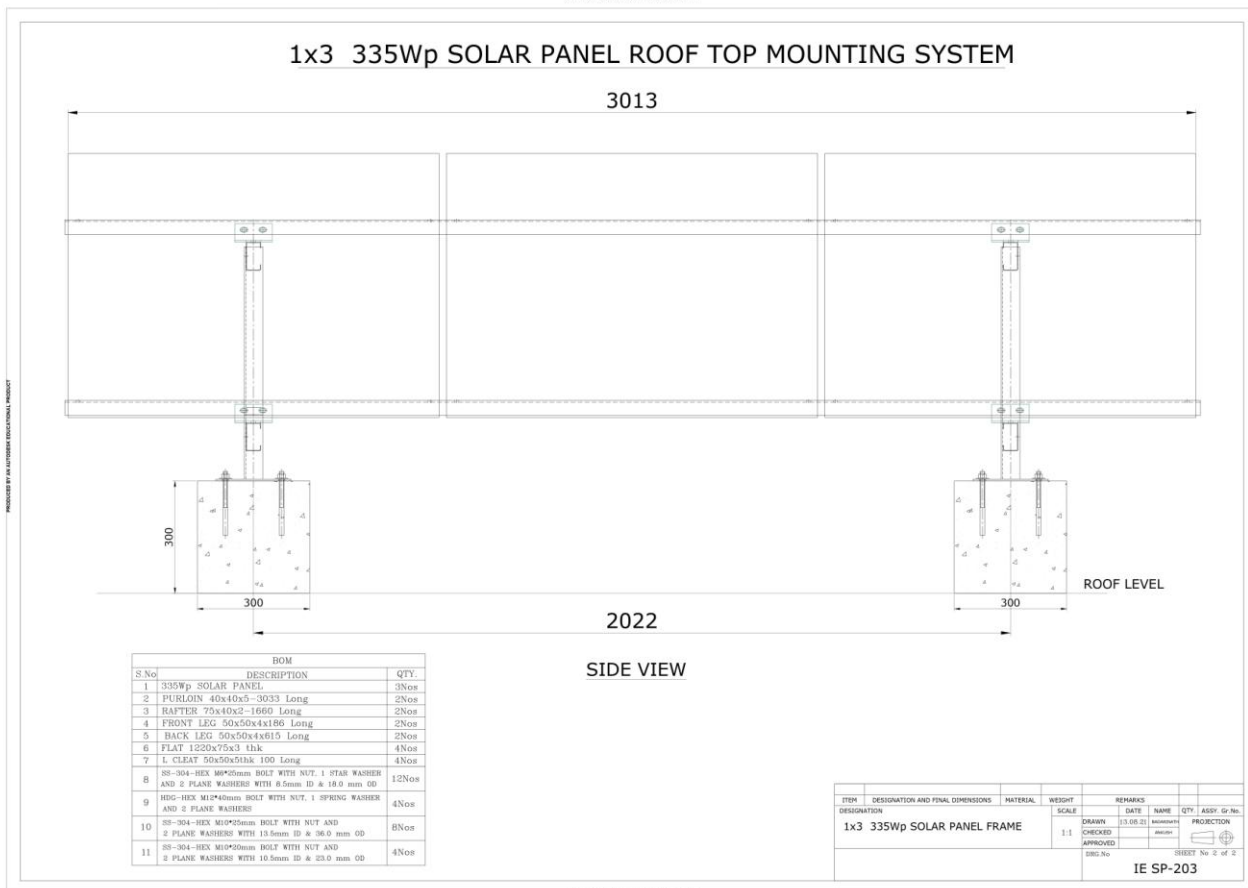
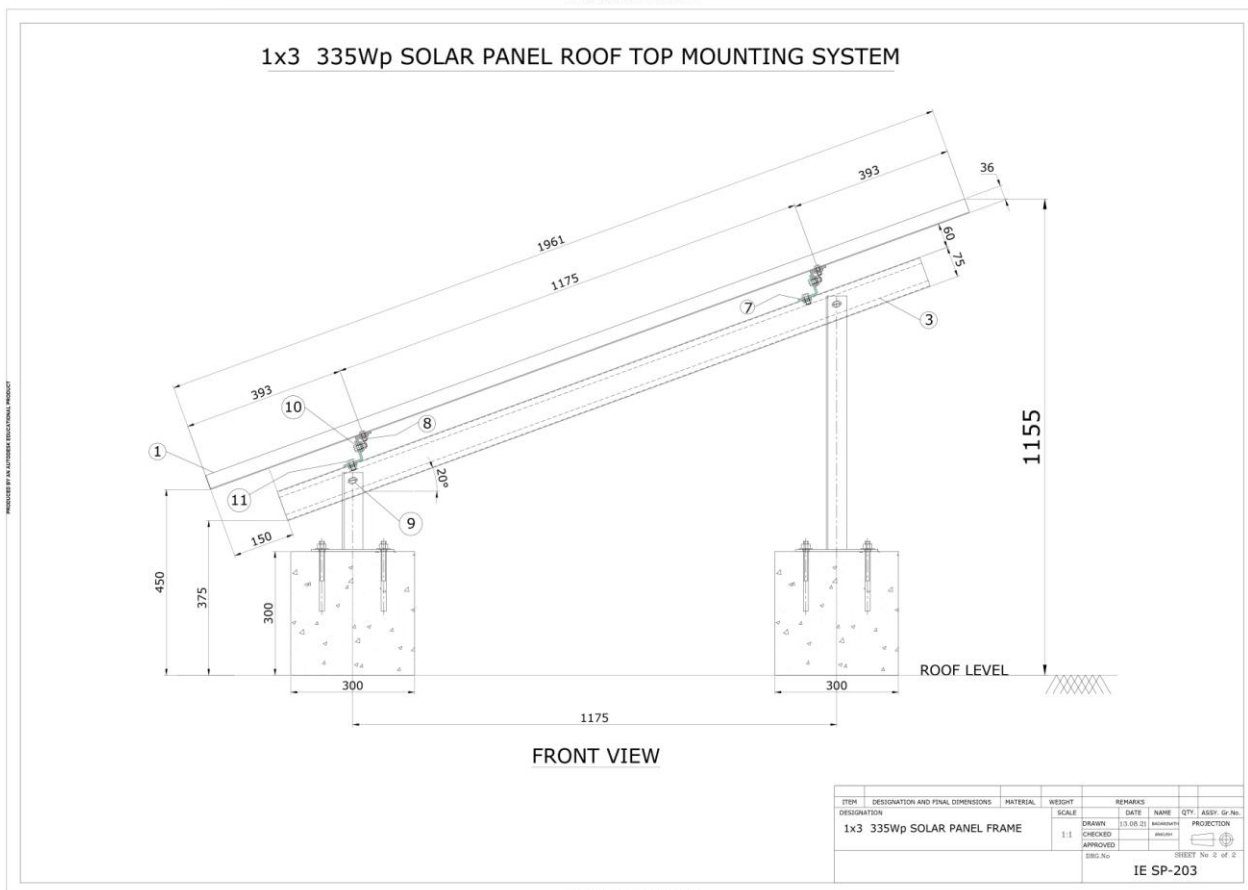
IE SP-203

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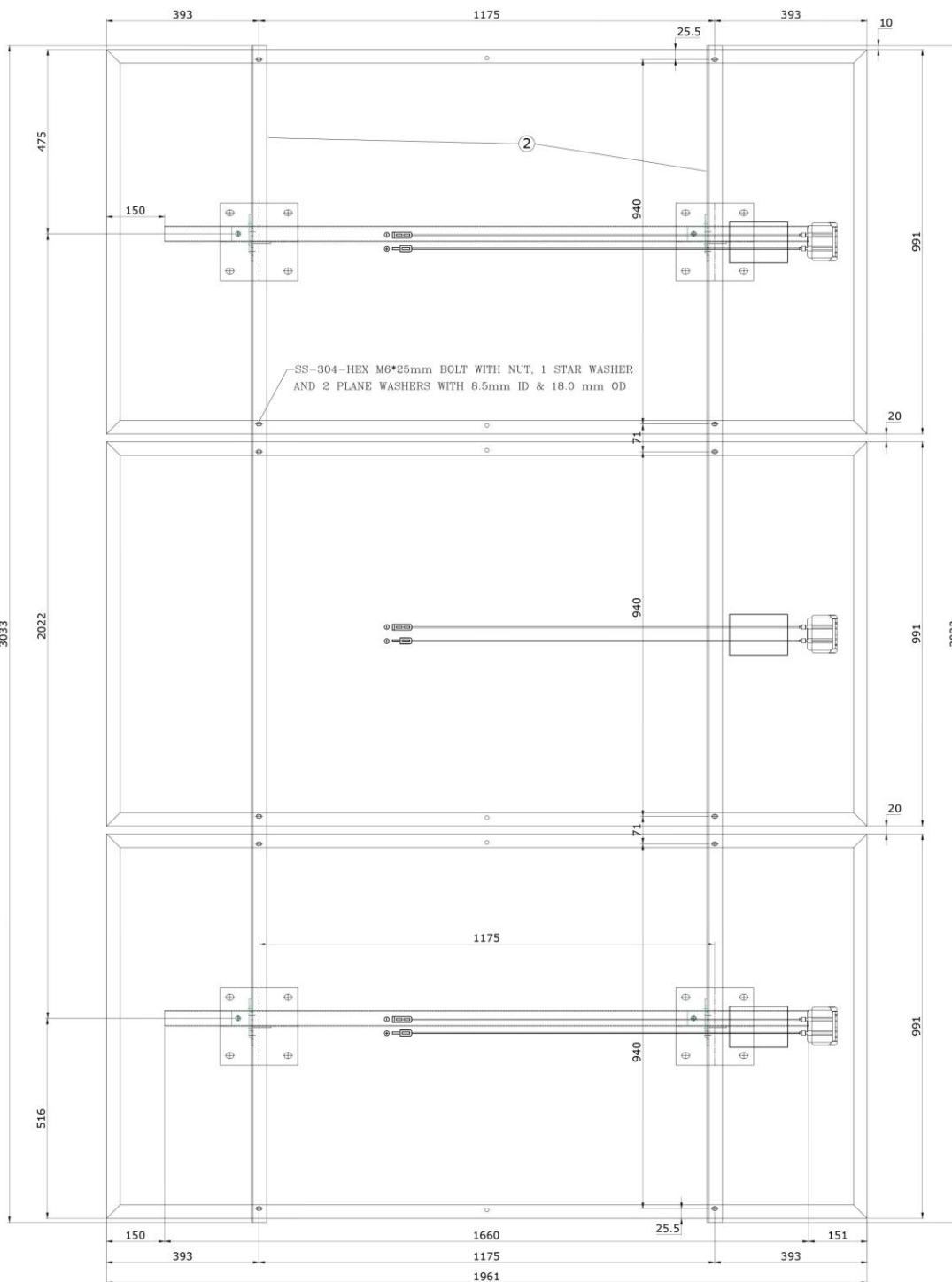
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## B. Rooftop Mounted



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### 1x3 335Wp SOLAR PANEL ROOF TOP MOUNTING SYSTEM



**TOP VIEW**

ITEM	DESIGNATION AND FINAL DIMENSIONS	MATERIAL	WEIGHT	REMARKS			
DESIGNATION	1x3 335Wp SOLAR PANEL FRAME			SCALE	DATE	NAME	QTY. ASSY. Gr. No.
				1:1	11.08.21	BADARINATH	
				CHECKED		ANUSHA	PROJECTION
				APPROVED			
				DRG.No			SHEET No 2 of 2

**IE SP-203**

PRODUCED BY AN AUTODESK EDUCATIONAL PRODUCT

## e-Price Bid – A

### For Supply, Installation & Commissioning of Solar D.C. Induction Cooking Stove

(e-bidding as per Specifications & Scope of **Work of Tender No. 83174/CREDA/ Solar Induction/Dated: 20.09.2021**)

**Supply, Installation & Commissioning of Solar D.C. Induction Cooking Stove with Five Years On Site Warrantee, COMC & Insurance Anywhere in The State of Chhattisgarh.**

(A)

S.No.	Item Code	Description	Qty	U.O.M.	Amount
1	Solar D.C. Induction Cooking Stove	Supply of Solar D.C. Induction Cooking Stove of 24V/1005Wp/160AH LFP Battery capacity/700W Induction Cooktop with housing	01	Lumpsum (LS)	Rs...../-
2	Solar D.C. Induction Cooking Stove's structure	Supply of Structure for Solar D.C. Induction cooking Stove	01	Lumpsum (LS)	Rs...../-
3	Solar D.C. Cooking System	Installation and commissioning of Solar D.C. Cooking System	01	Lumpsum (LS)	Rs...../-
4	COM	Comprehensive Operation & Maintenance of the Solar DC Induction Cooking System for Five Years	01	Lumpsum (LS)	Rs...../-

Certified that rates quoted above are as per the requirement, specifications, and terms & condition mentioned in the Tender document.

Above rates are FOR anywhere in the State of Chhattisgarh inclusive of roadworthy packing, loading, unloading, all types of incidental expenses, insurance, duties and any other job required to properly execute the work with 5 years' warrantee as mentioned in the bid document. The GST payable on the bill produced for payment to CREDA shall be paid in addition to above quoted price as per rate of GST applicable at the time of billing.

(No other cost will be claimed above the price quoted & the applicable GST).

**Name of the authorized Signatory:**

**Signature of the Authorized Signatory:**

**Seal of Company:**

**Date:**



**ANNEXURE – I****DRAFT AGREEMENT**

CONTRACT AGREEMENT BETWEEN Chief Engineer Chhattisgarh State Renewable Energy Development Agency (**CREDA**) Raipur AND M/s..... Represented by ..... THIS CONTRACT AGREEMENT against Tender No 83174/CREDA/ Solar Induction/2021 Dated: 20.09.2021 (also referred to as “Service Contract”) is made on the .....day of Month..... 2021.

**BETWEEN**

- (1) Chief Engineer Chhattisgarh State Renewable Energy Development Agency (**CREDA**) Raipur a society incorporated under the laws Society Registration Act 1973, (1973 , Sr. No. 44 ) (with amendment from time to time) and having its Registered Office at VIP Road Near Energy Education Park, Village- Fundhar, Raipur and (hereinafter called “The Employer” and also referred to as “CREDA” )

**And**

- (2) .....Represented by .....a company incorporated under the laws of Companies Act 1956/2013/ Partnership firm/ Proprietorship firm/Consortium (as applicable, with amendment from time to time ) and having its Principal place of business at.....and Registered Office at.....hereinafter called “The Contractor” and also referred to as “.....”

Whereas the contractor has offered to enter into contract with the said CREDA for the Standardization Of Rates For Supply, Installation & Commissioning of Solar D.C. Induction Cooking Stove With Five Years On Site Warrantee, COMC & Insurance Anywhere In The State Of Chhattisgarh wide Tender No 83174/CREDA/ Solar Induction/ Dated: 20.09.2021 on the terms and conditions herein contained and the rates approved by the CREDA (Letter No. .... dated ..... annexed here to) have been duly accepted and whereas the necessary security deposit shall be furnished in accordance with the provisions of the tender document and whereas no interest will be claimed on the security deposits.

Now these presents witness and it is hereby agreed and declared by and between parties to these presents as follows -

- 1) The Contractor shall, during the period of this contract, that is to say from ..... to ..... or completion thereof, until this Contract shall be determined by such notice as is hereinafter mentioned, safely carryout, by means of labours employed at his own expenses and by means of tools, implements and equipment etc. to be supplied by him to his labour at his own expenses, for “Supply, Installation & Commissioning of Solar D.C. Induction Cooking Stove With Five Years On Site Warrantee, COMC & Insurance Anywhere In The State Of Chhattisgarh” as described in tender documents. (Annexed to the agreement).
- 2) The NIT (Notice Inviting Tender), Corrigendum to NIT, Notices, Bid documents (Qualifying, Technical and Financial), approved rates annexed hereto and such other additional particulars, undertaking, instructions, general conditions of contract, Scope of work, Technical specifications of Solar D.C. Induction Cooking Stove and Annexure therein, engineering documents, detailed specifications of BOS & drawings, so far they relate to the Tender No.83174/CREDA/ Solar Induction/ Dated: 20.09.2021 as may be found requisite to be given during execution of the work shall be deemed and taken to be an integral part of the contract and shall also be deemed to be included in the expression "The Agreement or "The Contract "wherever herein used.
- 3) The contractor shall also supply the requisite number of workmen with means & materials as well as tools, appliances, machines, implements, vehicles for transportation, cartage etc.

required for the proper execution of work within the time prescribed in the work orders and /or as per the tender conditions.

- 4) The Engineer in Charge or his authorized representative (s) shall be entitled at all reasonable times to inspect and supervise and test during supply, installation & commissioning. Such inspection will not relieve the eligible SI from their obligations under this contract.
- 5) Material can be inspected before dispatch or in transit by the authorized representatives of CREDA at the factory at the cost of the eligible SI, if desired by CREDA. CREDA reserves right to inspect the material at Godowns / Temporary Stores before dispatch and also at works sites.
- 6) CREDA shall deduct TDS for Income Tax, applicable cess Work etc. under various acts and **deposited with the appropriate authority. Costs and taxes before execution of agreement with CREDA** so as to ensure tax deposition as per Government Rules accordingly.

7) **ELIGIBLE SYSTEM INTEGRATOR'S DEFAULT LIABILITY-**

CREDA may by written notice of default to the eligible SI, terminate the contract in circumstances detailed hereunder -

- (a) If in the opinion of the CREDA, the eligible SI fails to complete the work within the time specified in the work order or within the period for which extension has been granted by CREDA to the eligible SI.
- (b) If in the opinion of CREDA, the eligible SI fails to comply with any of the provisions of this contract.
- (c) In the event of CREDA terminating the contract in whole or in part as provided in paragraph (a) above, CREDA reserves the right to engage another eligible SI or agency upon such terms and in such a manner as it may deem appropriate and the eligible SI shall be liable to CREDA for any additional costs or any losses caused to CREDA as may be required for the completion of erection of the Solar D.C. Induction Cooking System and or for penalty as defined under this tender document until such reasonable time as may be required for the final completion of the work.
- (d) In the event CREDA does not terminate the contract as provided in paragraph (a) the eligible SI shall continue performance of the contract, in which case he shall be liable to CREDA for penalty for delay as set out in this tender document until the work is completed.

8) **FORCE MAJEURE -**

The eligible SI 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, LWE problems, acts of government, cyclone, fires, floods, epidemics, quarantine restrictions, strikes, freight embargoes provided that if SI shall submit delay notice with appropriate cause of delay to the CREDA in writing within **15 days** of force majeure. CREDA shall verify the facts and may grant such extension as facts justify. Delay in supply, installation, commissioning of any accessories of Solar D.C. Induction Cooking Stove by the related vendors, to whom the tenderer has placed order, shall also not be treated as force majeure.

9) **REJECTION OF WORKS-**

In the event of any of the material supplied/work done by the eligible SI is found defective in material or workman ship or otherwise not in conformity with the requirements of this contract specifications, CREDA shall either reject the material and/or work and advise the eligible SI to rectify the same. CREDA may impose penalty for such rejection up to the 200% cost of the entire system. Habitual/repeated offenders shall be black listed/debarred to participate in the any Tender/ Activity of CREDA till further orders. The eligible SI on receipt of such notices shall rectify or replace the defective material and rectify the work free of cost. If the eligible SI fails to do so CREDA may -

- a) At its option replace or rectify such defective materials and/or work and recover the extra cost so involved from the eligible SI plus **15%** service charges of the cost of

such rectification, from the eligible SI and/ or terminate the contract for balance work/ supplies with enforcement of penalty as stated above.

- b) Defective materials/workmanship will not be accepted under any conditions and shall be rejected outright without compensation. The eligible SI shall be liable for any loss/damage sustained by CREDA due to defective work **with enforcement of penalty as stated above.**

10) **EXTENSION OF THE TIME-**

If the completion of Supply, installation & commissioning is delayed due to any reason beyond the control of the eligible SI, the eligible SI shall without delay give notice to the CREDA in writing of his claim for an extension of time. CREDA on receipt of such notice may or may not agree to extend the contract/delivery date of the system as may be reasonable but without prejudice to other terms and conditions of the contract.

11) **PENALTY FOR DELAY IN COMPLETION OF CONTRACT-**

If the eligible SI fails to complete the assigned work within the schedule time specified in the sanction order or any extension granted there to, CREDA will recover from the SI as penalty a sum of **One per cent (1%)** of the system price for every delayed system per month. For this purpose, the date of taking over shall be reckoned as the date of completion. The total penalty shall not exceed **5% (Five Per cent)** of the cost.

Review of the progress of Supply installation & commissioning of Solar D.C. Induction Cooking Stove allocated to SIs shall be done time to time by CREDA and if the progress of Supply installation & commissioning is found unsatisfactory, the allocation of entire remaining incompleteness work D.C. Induction Cooking Stove or their part of can be re-allocated to other SI as per discretion of CREDA.

12) **PENALTY DUE FROM THE ELIGIBLE SI-**

All costs of damages and delays for which the eligible SI is liable to the CREDA will be deducted from any money due to the eligible SI including the security deposit of any project under CREDA.

13) **ELIGIBLE SI'S RESPONSIBILITY-**

Notwithstanding anything mentioned in the specifications of subsequent approval or acceptance of Solar D.C. Induction Cooking Stove by CREDA, if any, the ultimate responsibility for satisfactory performance of the entrusted work shall rest with the eligible SI. If in any case the eligible SI does not complete the work as per the sanction orders issued to them then CREDA may take over the task & complete the project at the risk and cost of eligible SI.

14) **RESPONSIBILITY TO RECTIFY THE LOSS AND DAMAGE-**

If any loss or damage occurs to the work or any part thereof or materials/system/equipment's for incorporation therein the period for which the eligible SI is responsible for the cause thereof or from any cause whatsoever, the eligible SI shall at his own cost rectify/replace such loss or damage, so that the permanent work conforms in every respect with the provision of the contract to the satisfaction of the Engineer. The eligible SI shall also be liable for any loss or damage to the work/equipment's occasioned by him in course of any operation carried out to him during performing the contract.

15) **RESPONSIBILITY TOWARDS THE WORKMAN OR OUTSIDERS-**

- The eligible SI shall have to take insurance coverage from any authorized Insurance Company against Workmen compensation due under Workmen Compensation Act and submit copy of the insurance document before issuance of Sanction order.
- The eligible SI shall ensure all safety measures during execution and repairs of the work. CREDA, will, in no case be responsible for any accident fatal or non-fatal, caused to any workman or outsider in course of transport or execution or repairs of work.

- All the expenditure including treatment or compensation will be entirely borne by the eligible SIs. The eligible SI shall also be responsible for any claims of the workers including PF, Gratuity, ESI & other legal obligations.
  - SI shall have to submit JCCs within **60 days** after Supply installation & commissioning of Solar D.C. Induction Cooking Stove in District Office of CREDA.
  - CREDA shall have rights to deduct such claims of payments from SI in case of complaints of such violations.
- 16) Contractor shall provide 05year warranty in Installed Solar D.C. Induction Cooking Stoves from the date of handing over to beneficiary as per the terms & conditions prescribed in the Tender No.83174/CREDA/ Solar Induction/ dated: 20.09.2021.
  - 17) **DECLARATION OF CONFLICT OF INTEREST** - The contractor hereby declares that nobody connected with or in the employment of **CREDA** is not/shall not ever be admitted as partner in the contract.
  - 18) (a) The contractor shall arrange insurance coverage for the materials and Solar D.C. Induction Cooking Stove at his/beneficiary's custody for the work under execution and successful distribution and subsequent handover to the beneficiary. The contractor shall take up insurance or such other measures for the manpower so as to cover the claim for damage arising under workmen's compensation Act and other applicable State/ Central laws. CREDA shall not bear any responsibility on this account.  
 (b) Contractor shall arrange for insurance coverage for Solar D.C. Induction Cooking Stove and module during COMC period i.e. for 05 year from the date of handing over. Insurance should cover for damage and theft. In case of such incidence, SI must replace the lost/damaged part within 7 days.
  - 19) The contractor shall abide by the terms and conditions, rules, guidelines, construction practices, safety precautions etc. stipulated in the tender document including any correspondence between the contractor and the **CREDA** having bearing on execution of work and payments of work to be done under the contract.
  - 20) The contractor shall be responsible to follow all the laws including Workmen Compensation Act and all other laws in force & shall be responsible for all the obligations towards labour including EPF, ESI, etc.
  - 21) All the taxes deductible at source as per Acts in vogue shall be recovered by **CREDA** and deposited with the appropriate authorities
  - 22) Contractor agrees to abide by any decision/instruction passed by the appropriate authority under Anti-profiteering rules notified by the state/central government under GST act.
  - 23) Any dispute arising out of the contract shall be subject to the jurisdiction of Hon'ble Court of Chhattisgarh.

**"Herewith everything and anything contained in Tender document no. 83174/CREDA/ Solar Induction/ dated: 20.09.2021 is part of this agreement which has been dully signed by both bidder and authorised signatory of CREDA".**

In witness whereof the parties present today has hereby entered into agreement.

**Signed & sealed on behalf of the above  
Named contractor**

Name:  
Designation:

**Signed on behalf of CREDA**

Name:  
Designation:

**Witness:**

1. Name: -.....

2.Name: -.....

Address: -.....

Address:.....

.....

.....

**SCHEDULE - I****PART 'A': GENERAL INFORMATION**

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

- 01.** Name & Address of the Bidder :
- 02.** Name & Address of the firm/Company etc. :
- a) Registered office :
- b) Factory/works address :
- c) Fax Nos. :
- d) Telephone / Mobile Nos. :
- e) Email id :
- 03.** Confirm whether tenderer is Manufacturer : Yes/No
- 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 :  
Achieved so far
- 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 light his bid

PLACE :

**SIGNATURE OF TENDERER**

NAME IN FULL

DATE :

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)** Earnest Money Details : Bank draft/Bankers cheque payable to "CREDA", Raipur
- ii) Amount of E.M.D. & full details : .....
- iii) If exempted, state whether the bidder is / Fully Owned State/Central Govt. Unit : SSI Unit of C.G.
- iv) Reference of documentary evidence regarding exemption enclosed. : Yes/No
- 02.** Whether the offer is valid for 6 months from the date of opening of commercial/technical bid. : Yes/No
- 03.** Rate of Sales Tax on the date of bid (exclusive in the rate quoted) :
- 04. DISCOUNT:**
- a) Whether any rebate/discount is offered. : Yes/No
- b) If yes, whether the rebate is unconditional/conditional : Yes/No  
Rate/amount of rebate/discount
- c) If conditional State condition : Yes/No
- 05. PAYMENT TERMS:**  
Whether CREDA's terms of payment is acceptable to tenderer : Yes/No
- 06. COMPLETION PERIOD OF WORK:**  
Whether tenderer is agreeing for completion period of work as Specified in the tender : Yes/No
- 07. PENALTY CLAUSE:**  
Whether agreeable to CREDA's Penalty Clause : Yes/No
- 08.** Whether agreeable to CREDA's clause of warrantee period : Yes/No
- 09. SECURITY DEPOSIT:**  
Whether Security Deposit clause is understood : Yes/No
- 10.** Indicate State, Central Sales Tax Registration Number State : Yes/No  
Central:  
(Please Note that in case of non-registration with Commercial Tax, Department Purchase Tax as admissible shall be deducted by the Purchaser from the Bills of the supplier)
- 11.** Please mention whether rates offered are applicable for part quantities. : Yes/No

PLACE:

**SIGNATURE OF TENDERER**

DATE:

NAME IN FULL

DESIGNATION/STATUS

FIRM/COMPANY SEAL

**SCHEDULE - II****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 completion certificate received during last 3 years : Yes/No  
from other State Nodal Agency or from other Organization for Solar  
D.C. Induction Cooking Stoves  
(if yes, give details) enclosed.
- 03.** Whether pamphlets/technical details literatures along with drawing etc. : Yes/No  
furnished with the offer (if yes, give details)
- 04.** 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.
- 05.** Whether the tenderer has furnished details of manufacturing : Yes/No  
equipment's and short history of plant (if yes, give details)
- 06.** Whether details of manufacturing process furnished with offer. : Yes/No  
(if yes, give details)
- 07.** 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

**SIGNATURE OF TENDERER**

DATE

NAME IN FULL

DESIGNATION/STATUS

FIRM/COMPANY

SEAL



**SCHEDULE - III****TECHNICAL DEVIATIONS**

From,  
Tenderer Name & Address -

To,  
The CE,  
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 -

<b>Sl.No.</b>	<b>Condition</b>	<b>Clause No. of Tender document</b>	<b>Page No. of Tender document</b>	<b>Statement of deviations and variations</b>
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-

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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

**SIGNATURE OF TENDERER**

DATE

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.

## **SCHEDULE - IV**

### **PAST EXPERIENCE**

**From :**

Bidder's Name & Address -

To,

**The CE,**

**CREDA, HO,**

**Raipur**

**Sub – Performance/Past Experience.**

**Dear Sir,**

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

<b>Sl.No.</b>	<b>Purchaser's Name &amp; Address</b>	<b>Order No. Date</b>	<b>Ordered Quantity</b>	<b>Qty. supplied (Nos.)</b>	<b>Value of Order</b>
-					
-					

PLACE

**SIGNATURE OF TENDERER**

DATE

NAME IN FULL

DESIGNATION/STATUS

FIRM/COMPANY SEAL

**NOTE** - Photocopy of the completion certificate received from other State Agencies/Govt. Undertakings etc. should be enclosed.

**ANNEXURE – II**

**(EXPERIENCE CERTIFICATE ON THE OFFICIAL LETTER HEAD OF CONCERNED GOVERNMENT DEPARTMENT WITH SEAL AND SIGN BY AUTHORIZED SIGNATORY)**

Ref. No.....

Date.....

**Completion cum Performance Certificate**

This is to certify that M/S \_\_\_\_\_ (With Full Address), has successfully completed the work of Supply, Installation & Commissioning of Solar D.C. Induction Cooking Stove in \_\_\_\_\_ State, as per following details :-

S. No.	Name of Dept. Where Supplied the system	District	Work Order No. & Date	No. of System	Completion Date

This certificate is being issued against the request of M/S \_\_\_\_\_, for their intent for participation in the following Bid:-

S. No.	Bid Number
1	83174/CREDA/ Solar Induction/ DATED 20.09.2021

The Workmanship and performance of the supplied systems are found satisfactory and are in successful operation.

**Seal & Sign  
(Authorised Signatory)**

**FORMAT FOR THE AFFIDAVIT**

(Note: This affidavit should be on a non-judicial stamp paper of Rs. 100/- and shall be attested by Magistrate/Sub-Judge/ Notary Public)

I,.....(Name of the bidder authorized representative of the bidder) son/ daughter of..... resident of ..... (Full address), aforesaid solemnly affirm and state as under:

1. I hereby certify that all the information furnished with the bid submitted in response to Tender/bid no.83174/CREDA/Solar Induction/DATED 20.09.2021 issued by Chhattisgarh State Renewable Energy Development Agency (CREDA) (authority inviting bids) for Design, Supply, Installation and Commissioning with 5 years comprehensive maintenance of Solar D.C. Induction Cooking Stove at different locations in Chhattisgarh state (name and identification of work) are true and correct.
2. I hereby certify that I have been authorized by..... (Company name) to sign on their behalf, the bid mentioned in Sr.No.1 above.\*
3. Information furnished in the bidding documents is correct in all respects to the best of my knowledge and belief.
4. The near relations, as per clause 30(A) in Section - 02, in CREDA, are not in employment of the firm/company. (Note:-By the term near relatives is meant Wife, Husband, Parents and Son, Brother, Sister, Brother-in-law, Father-in-law, Mother-in-law etc.) (if working mention the name/names)  
.....  
.....
5. The name of near relative (if any) as per Clause 31(B) who retired/removed within the last two years. (If None, clearly State None)  
.....  
.....
6. No near relative is working as Financial Accountant in the CREDA. (if working mention the name)  
.....  
.....
7. No person is working in the company in any capacity, who are near relatives to any Officer in Chhattisgarh State Renewable Energy Development Agency (CREDA) (If working mention the name)  
.....  
.....
8. Our company/firm/ or otherwise is not under the clarification of ineligibility for corrupt and fraudulent practices by the Central Government, the State Government or

any public undertaking, autonomous body, authority by whatever name called under the Central or the State Government as mention in clause 1(F) of tender document.

9. I hereby authorize the CREDA Officials to get all the documents verified from appropriate sources (s).

Deponent

Place: .....

Date: .....

\* Not applicable if the bidder is an individual and is signing the bid on his own behalf.

**Verification**

I..... S/o.....do here by affirm that contents stated in Para 1 to 09 above and contents submitted in technical & financial bid are true to the best of my knowledge and believe and are based on my/our record.

Verified that this date of ..... at (Place).....

Deponent

**ANNEXURE –IV****Benchmark Cost For Solar D.C. Induction Cooking Stove**

No.	Description	Per Unit Rate (without GST)
1	Supply of Solar D.C. Induction Cooking Stove of 24V/1005wp/ 160AH LFP Battery capacity/ 700w induction cooktop with housing, solar structure. (For House hold use) etc.	
	A. SPV, Battery, Induction stove, utensils and Housing	A. Rs 1,70,000/-
	B. Ground Mounted/ Rooftop mounted Structure	B. Rs 16,500/-
2	Installation and commission of solar DC Cooking system.	Rs 10,000/-
3	Comprehensive Operation &Maintenance (COM) of Systems for five years.	Rs 5,000/-
	<b>TOTAL AMOUNT (without GST).</b>	<b>Rs 2,01,500/-</b>

End of the Document