Chhattisgarh State Renewable Energy Development Agency (CREDA)

(Dept. of Energy, Govt. of Chhattisgarh)

Near Energy Education Park, Village Fundhar
VIP (Air Port Road) Raipur 492015 (C.G.) Ph.: +91-7000251010
E-mail:credatendercell@gmail.com*, *Website: creda.co.in

BID DOCUMENT No. 203363/CREDA/ PDN-WORKS/2026-27 DT. 12-11-2026

"RATE CONTRACT TENDER FOR STANDARDIZATION OF RATES FOR SUPPLY, INSTALLATION AND COMMISSIONING OF VARIOUS POWER DISTRIBUTION WORK(PDN) SUCH AS FABRICATION OF POLES, BRACKETS, CABLE FIXTURE, FENCING ETC AND SUPPLY OF ELECTRICAL MATERIALS ALONG WITH THEIR INSTALLATION FOR VARIOUS SOLAR PROJECTS AND OPERATION AND MAINTENANCE WORKS, IN CREDA ANYWHERE IN THE STATE OF CHHATTISGARH"

Particulars	From Date & Time	To Date & Time	Place
Date of issue of notice inviting bid	**12.11.2026 05:00 PM**	----	-----
Period of availability of bidding document at website	**12.11.2026 05:00 PM**	**03.12.2026 05:00 PM**	www.creda.co.in/Tenders https://eproc.cgstate.gov.in
Submission of Pre- Bid queries	**12.11.2026 05:00 PM**	**18.11.2026 05:00 PM**	Pre Bid queries can be emailed on credatendercell@gmail.com and can be submitted on hard copy at CREDA head office
Pre-bid meeting	**19.11.2026 12:00 PM**	**19.11.2026 02:00 PM**	To be held at Conference Hall CREDA HO, Raipur
Submission of Online Bid (Technical + e Price Bid)	**12.11.2026 05:00 PM**	**03.12.2026 05:00 PM**	Online Bid on https://eproc.cgstate.gov.in & hard copy at CREDA H.O. Raipur (C.G.)
Opening of Technical Bid	**04.12.2026 12:00 PM Onwards**		At CREDA Conference Hall. CREDA HO, Raipur https://eproc.cgstate.gov.in
Evaluation of Technical Bid	**08.12.2026 12:00 PM Onwards**		At CREDA Conference Hall. CREDA HO, Raipur
Opening of e- Price Bid	**11.12.2026 12:00 PM Onwards**		At CREDA Conference Hall. CREDA HO, Raipur

Bid Document Cost –Rs.10,000.00 + 18% GST = Rs.11,800.00/-(In words Rupees Eleven Thousand Eight Hundred Rupees 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 or from Chhattisgarh e-Procurement portal i.e. https://eproc.cgstate.gov.in.

CHATTISGARH STATE RENEWABLE ENERGY DEVELOPMENT AGENCY

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Ref. No.:10700/CREDA/PDN-Works/2026-27 Date: 12.11.2026

NOTICE INVITING BID

CREDA invites sealed Bids "Rate contract tender for standardization of rates for supply, installation and commissioning of various power distribution work(PDN) such as fabrication of poles, brackets, cable fixture, fencing etc and supply of electrical materials along with their installation for various solar projects and operation and maintenance works, in CREDA anywhere in the state of Chhattisgarh "from registered PDN contractor/Vendor of Electrical and Electronics items & fabrication items of CREDA (As per clause no 12 page 9 section 01)with min three years track record in the field of PDN and O&M works, as per following details -

S.No.	Item Description	Approximate value of work	Cost of Bid Document fees and EMD	Essentials
1	"Tender for standardization of rates for supply, installation and commissioning of various power distribution work (PDN) such as fabrication of poles, brackets, cable fixture, fencing etc and supply of electrical materials along with their installation for various solar projects and operation and maintenance works, in CREDA anywhere in the state of Chhattisgarh"	Rs. 15.00 Crore	Rs. 10,000.00 (+18% GST) Rs.5,00,000/- = Rs. 5,11,800/-	As per clause no. 1A to 1I of Eligibility Criteria (**Page no. 7**)
TOTAL		**Rs. 15.00 Crore**	**Rs. 5,11,800 /**	**----**

The quantity of work is not fixed. The allocation of work order will be depended on the availability of project and fund to CREDA.

Important Events and time schedule for this Bid are as follows –

Particulars	From Date & Time	To Date & Time	Place
Date of issue of notice inviting bid	**12.11.2026 05:00 PM**	----	-----
Period of availability of bidding document at website	**12.11.2026 05:00 PM**	**03.12.2026 05:00 PM**	www.creda.co.in/Tenders https://eproc.cgstate.gov.in
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Technical Bid and Price Bid shall be submitted online only at https://eproc.cgstate.gov.in. However Technical Bid (as per the checklist) also has to be submitted in hard copy duly signed by bidder at H.O. Tender Cell, CREDA. If there is any discrepancy in the e-Bid and hard copy, only the e-bid shall be valid. In no case the hard copy of documents shall be evaluated, it is only for record keeping of CREDA. 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 tender are mentioned at Tender Documents which can be downloaded from our website www.creda.co.in.

The Bidder shall have to deposit tender document cost along with EMD as mentioned above through demand draft/RTGS/NEFT payable to CREDA Raipur while submitting tender.

Bidders are requested to submit their suggestions/objections/reservations, if any with details so as to avoid any confusion and to ensure clarity and transparency regarding the tender in writing or by e-mail. Any Addendum/Corrigendum/Amendment/Cancellation Notice, if needed, shall be uploaded on CREDA's Website.

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

Chief Engineer
H.O. CREDA

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	Complied (For Office Use only)
1.	**A. Pre-Qualification**	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 Page – 6 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 as per Annexure – 03	
7.		Copy of Registration: Certificate (or Acknowledgment) as PDN contractor/Vendor of electrical and electronics items or fabrication items of CREDA valid for FY 2026-27 if not registered then he shall have to registered prior to the contract agreement.	
8.	**B. Technical and Financial Qualification**	Copy of Test reports of cables and other necessary items mentioned in the tender.	
9.		Original Net Worth Certificate as on 31 March 2025/2026 duly signed by Chartered Accountant.	
10.		Copy of Turnover Certificate for last three consecutive financial years of works done regarding SPV PDN works, Fabrication works, Electrical material supply work.	
11.		Copy of ITRs and audited balance sheet for last three consecutive Financial Years i.e. 2022-23, 2023-24, 2024-25/2025-26 of the Bidder	
12.		Completion/Experience Certificates of PDN Works, Electric material, Equipment Supply work in the name Bidder in Govt. Scheme of any State in any three out of last five consecutive financial years i.e. 2021-22, 2022-23, 2023-24, 2024-25 & 2025-26 as per tender terms and conditions	
13.		Proof of being Eligible Manufacturer of standard items mentioned in the tender, if serial no. 14 is not applicable	
14.		Manufacture Authorization certificates of standard items mentioned in the tender (mandatory in case of authorised dealer/distributor)	
15.		Undertaking on indigenousness 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 (on page - 68 of bid document)	
18.		Schedule - II Part-B (on page - 69 of bid document)	
19.		Schedule - III Part-C (on page - 70 of bid document)	
20.		**Minimum "B" class electrical contractor** with valid license at time of bidding.	

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	
Bidder's Bank Account Details	
(i) Name of the bank	
(ii) Branch	
(iii) IFS Code	
(iv) Account No.	
(v) Transaction reference number	
(vi) Date of transaction	
(vii) EMD + Bid Document Fee	Rs. 5,11,800/- (Rs. 5,00,000 + Rs. 11,800)

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 <u>single NEFT/RTGS transaction</u> in CREDA's bank account (amount mentioned above).**
2. **Bidders those who have valid MSME Competency Certificate and are registered in Chhattisgarh State are exempted from submitting the EMD amount mentioned above. They have to only pay the bid document fees**

UNDERTAKING OF THE BIDDER

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

I/We hereby Bid 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 Bid 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 5,00,000 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 Work Ordered in specified time or fail to fulfil the any condition of Bid 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 Bid 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 Bid 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 – 03"

Dated:

Place:

Signature

Name of Bidder with seal.....

Witness:

Signature: .....

Name: .....

Postal Address: .....

.....

SECTION – 1

INSTRUCTIONS FOR BIDDERS

1. ELIGIBILITY CRITERIA:

A. MINIMUM EXPERIENCE

Bidders must have minimum experience in any three out of last five consecutive financial years i.e. 2021-22, 2022-23, 2023-24, 2024-25 & 2025-26 as per the details mentioned below -

SN	Details of work experience	Experience
1	Supply, installation and commissioning of various fabrication items used in PDN works, PDN Civil works, **supply of various electrical items/equipment** under various government projects and operation and maintenance in any government organisation/govt. agencies/undertaking of any state in India.	Minimum 03 years' working experience in power distribution work i.e. supply, installation and commissioning of related works

B. For installation work, the bidder must have a **minimum "B" class electrical contractor** valid license at time of bidding. The license should have to be uploaded in the bidding portal. As the risk & quantum of each work order in SPVPP project is less as compare to the Conventional electrical work hence the criteria of **"B" class electrical contractor license will not be applicable on the allocation of work under the said tender however the work will be allocated by CREDA based on previous work performance of the bidder.**

C. Bidders will have to submit satisfactory commissioning report containing complete details from the concerned state/central agencies /department along with bid document. Experience Certificates submitted should be in attached format (as per **Annexure-02**) **or Other Format containing similar information as in attached format (Annexure-02) 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. Bidders must have a Positive Net worth of Rs**. 25 Lacs as** on **31st March 2025/31st March 2026 (which is defined as "Net value of the Assets minus (-) Net value of liabilities")**. They shall have to submit an **Original 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. Bidders should have an aggregate turnover of minimum 0**2 Crores** in last three consecutive years i.e. 2022-23, 2023-24, 2024-25 or 2023-24, 2024-25, 2025-26 in SPV PDN works and supply, Fabrication works, Electrical material supply work. 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 an **Original Summarised Sheet** of turnover certified by registered CA must be enclosed.

F. Bidder who is 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. The OEM or its authorised dealer/distributor /authorised representative can participate in the Bid.

H. The Bidder shall be the original manufacturer of items. In case any dealer or distributor of any company then the bidder shall have to submit the certificate of authorisation/Dealership certificate from the concerned company.

I. 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.

2. Bidders should inspect and examine the site and its surroundings and satisfy themselves before

submitting their tenders as to the nature of the ground and sub-soil (so far as is practicable), the form and nature of the site, the means of access to the site, the accommodation they may require and in general shall themselves obtain all necessary information as to risks, contingencies and other circumstances which may influence or affect their tender. A Bidder shall be deemed to have full knowledge of the site whether he inspects it or not and no extra charges consequent upon any misunderstanding or otherwise shall be allowed. The Bidder shall be responsible for arranging and maintaining all materials at his own cost, tools & plants, water electricity access, facilities for workers and all other services required for executing the work unless otherwise specifically provided for in the contract documents. Submission of a tender by a tenderer implies that he has read all the terms and conditions of the tender and all other contract documents and has made himself aware of the scope and specifications of the work to be done and of conditions and rates at which stores, tools and plant, etc.(including the local taxes, duties, levies and other obligations as may be enforceable from time to time) will be issued to him by the government and local conditions and other factors having a bearing on the execution of the work.

3. **CONSORTIUM**-Consortium of bidders shall not be allowed in this bid.

4. **START-UP AND NEW ENTREPRENEUR** – Start-ups and New Entrepreneurs shall not be allowed in this bid.

5. **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 03-12-2026**. Bids submitted after scheduled time and date shall not be considered.

6. **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, Pachpedi Naka, Raipur**
Bank Account Number	**134601000400**
Branch IFSC Code	**ICIC0001346**

7. **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.

8. **SPECIFICATION AMENDMENTS -**

The Specifications of items should be as per the same mentioned in the bid. If any amendments are issued by CREDA in due course of time, in this context, then those shall be applicable under this bid.

9. **GST & PAN -**

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

10. **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 12-11-2026 to 05:00 PM dated 03-12-2026.** 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.**

11. ANALYSIS OF RATE –

Bidder should quote their rates considering variation of site conditions and all other factors in price of different components and keeping the quantum and quality of work in mind. In the event that any bidder quotes rates that are exceptionally low or exceptionally high and are found to be unreasonable or non-workable in the opinion of CREDA, the Tender Evaluation Committee reserves the right to conduct a market survey and/or rate analysis to assess the feasibility of such rates. The findings of such survey/analysis shall be placed on record, and CREDA may reject such bid if the quoted rates are determined to be unworkable or detrimental to the satisfactory execution of the work

12. REGISTRATION OF BIDDER –

The bidder must be a registered with CREDA as PDN contractor/vendor for supply of electrical or electronics items at the time of submission of bid if not registered the he shall have to get registered himself as PDN Contractor prior to the contract agreement with CREDA.

13. 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 Bid the approved rates shall be valid till two year from the date of finalisation; however, CREDA shall have liberty to increase or decrease this validity if needed.

14. TERMS & CONDITIONS -

A. The terms, conditions and specifications mentioned in Bid document shall be binding on the Bidders and no condition or stipulation contrary to the conditions shall be acceptable. It may please be noted that the Bidders who do not accept terms and conditions stipulated in this Bid documents, their offers shall be liable to be rejected out-rightly without assigning any reason whatsoever.

B. Each page of Bid document & enclosures shall be signed by the Bidder 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 Bid, the Bidder should attest the same; otherwise, Bids may not be considered.

C. Bidders are also instructed to submit their Bids in properly arranged manner (with index, proper paging and with flags on important documents). Incomplete, lose, conditional or improper arranged Bids will not be accepted.

15. CREDA RESERVES THE RIGHT -

(i) To reject or accept any or all Bids fully or partly without assigning any reason on the grounds considered advantageous to CREDA, whether it is the lowest Bid or not.

(ii) To split the quantities against the Bid further for the same items/work. No reason will be assigned by CREDA for this and will be binding on the Bidders.

(iii) To increase or decrease of aggregate quantities up to 100 % as per discretion or circumstances.

(iv) Due to large quantum of supply& limitation of the time period for completion of the supply/works CREDA may take consent from other Bidders if they agree to work on rates standardized by CREDA.

(v) CREDA may undergo agreement with those eligible Bidders who give consent to work on rates standardized by CREDA and may allocate work to them. Rates approved through this Bid may be standardized for all eligible Bids to work for **two year from the date of award**. However, CREDA reserves right to curtail or extend this period.

16. 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.

17. BID DOCUMENT FEE AND EARNEST MONEY-

a. Each Bidder should submit Bid Document Fee and earnest money in the form of

RTGS/NEFT as mentioned in the tender no. **203363/CREDA/PDN WORKS/2026-27 DT. 12-11-2026**, as prescribed at **page 05,** else they will summarily be rejected and returned. Bid Document Fee & EMD submitted in any other form e.g. **Cash/Bank Guarantee/FDR /TDR etc. shall not be accepted**.

b. MSME unit registered for manufacturing or service of PDN/fabrication/electrical/electronic items or its components in Chhattisgarh state and public sectors of government are exempted from EMD subjected to submission of valid document i.e. Valid Production competency certificate.

18. PRE-BID MEETING AND QUEIRES SUBMISSION IN WRITING -

i. Pre-bid queries are required to be submitted on **18-11-2026 up to 5:00 PM** at CREDA HO Raipur to clarify doubts so that all doubts and confusions are resolved before the submission of Bid. The Prebid queries can be emailed on **credatendercell@gmail.com.**

ii. All suggestions, doubts, confusion, request, queries etc., shall have to be presented to CREDA **in writing** on or before **18-11-2026 till 5:00 PM**. After that any representation in this regard shall not be considered.

iii. The purpose of pre-bid meeting is to clarify issues and to answer questions in any matter that can be raised at that stage. The responses against queries if required will be uploaded on website of CREDA and the e-bidding portal for information of bidders. Any modification of the bidding document which may become necessary as a result of pre-bid queries shall be part of original Bid document and communicated through corrigendum uploaded on www.creda.co.in and https://eproc.cgstate.gov.in

iv. After that any representation in this regard shall not be considered. A Pre-Bid Meeting shall be held on **12:00 PM, Date 19-11-2026** at CREDA conference hall to discuss and clarify the queries received within the prescribed period. Only those queries submitted on or before the specified deadline shall be taken up for discussion during the Pre-Bid Meeting

19. TECHNICAL CRITERIA -

Bidder shall have to give a self-declaration that all the Electrical, Electronics and PDN items are conforming to the latest ISI standards and IEC standards/BIS standards.

20. FORFEITURE OF EARNEST MONEY DEPOSIT -

It should be clearly understood that in the event of Bidder 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 Bidder shall be debarred/blacklisted from future business with CREDA. CREDA's decision in this regard will be final and binding on the Bidders.

21. PRICE OF SUPPLY OF POWER DISTRIBUTION MATERIAL(PDN) MATERIALS -

I. The Price quoted for all items/work must be with two-year warranty. The GST shall be paid extra as per prevailing rate. The prices shall be filled exactly as per **Price Bid enclosed**.

II. Any change in GST shall be become applicable during the period of contract.

22. ENGINEERING DOCUMENT -

Bidders will have to submit Engineering Documents with technical details, Specifications of components and make etc. to CREDA for approval, as and when asked by CREDA. Supply/work may only be started out only after approval of the Engineering Document/Drawing.

23. INSPECTIONS -

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

24. TAX OBLIGATIONS -

CREDA shall deduct TDS for Income Tax, applicable cess on Civil 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.

25. MANDATORY DEDUCTION -

i. CREDA shall deduct various statutory taxes like IT TDS, GST TDS and various cases on the payment made by the beneficiaries as contribution to bidder and subsidy payable by CREDA i.e. total cost of system.

ii. **WCT**- This deduction will be made at the rate of 01% on the total cost (including beneficiary share) of the system.

iii. **Royalty**- In the absence of Royalty clearance certificate royalty will be deducted at the market rate on the consumption of minor minerals like sand and aggregates.

26. JURISDICTION OF THE COURT –

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

27. CORRUPT OR FRAUDULENT PRACTICES -

i. CREDA requires the bidder to strictly observe the laws against fraud and corruption in force in India, namely, Prevention of Corruption Act, 1988.

ii. It is required that each bidder (including their respective officers, employees and sub-contractors) adhere to the highest ethical standards, and report to the Government/ Department all suspected acts of fraud or corruption or coercion or collusion of which it has knowledge or become aware, during the tendering process and throughout the negotiation or award of contract.

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 Bidder 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 project.
- "The Eligible SI/Bidder" shall mean the Bidder awarded with the contract or their successors and permitted assigns. Contract Price shall mean the sum named in or calculated in accordance with the provisions of the contract as the contract price. General Conditions shall mean 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 bidder from time to time, as well as all samples and pattern, if any,
- "Month" shall mean calendar month. "Writing" shall include any manuscript, type written, 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 fabrication, electronic, electrical items shall have to submit proof of their factory, SSI Registration 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 -

Execution of work shall be carried out under Government Mode Scheme of any State in an approved manner as outlined in the technical specifications or where not outlined, in accordance with desired Specifications laid down by CREDA in tender document, to the reasonable satisfaction of the Engineer.

5. VARIATIONS, ADDITIONS & OMMISSIONS -

CREDA shall have the right to alter, amend, omit, split or otherwise vary the quantum of work, by notice in writing to the Bidder. The eligible Bidder 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 Bidder.

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 and commissioning. Such inspection will not relieve the eligible bidder 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 bidder, if desired by CREDA.

C. CREDA will undertake real time performance and quality test of randomly selected items and its components during the course of execution as per the specifications and guidelines laid by CREDA to ensure quality items/work.

7. COMPLETION OF WORK -

Time being the essence of contract, the supply of the Items/work shall be completed within the time schedule prescribed in the Work Order.

8. ELIGIBLE BIDDER'S DEFAULT LIABILITY -

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

(a) If in the opinion of the CREDA, the eligible bidder fails to complete the supply/work within the time specified in the supply/work Order or within the period for which extension has been granted by CREDA to the eligible bidder.

(b) If in the opinion of CREDA, the eligible bidder 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 bidder or agency upon such terms and in such a manner as it may deem appropriate and the eligible bidder shall be liable to CREDA for any additional costs or any losses caused to CREDA as may be required for the supply of the Items and or for penalty as defined under this Bid 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 bidder shall continue performance of the contract, in which case he shall be liable to CREDA for penalty for delay as set out in this Bid document until the work is completed.

9. FORCE MAJEURE -

The eligible bidder 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, other like problems, acts of government, cyclone, fires, floods, epidemics, quarantine restrictions, strikes, freight embargoes provided that if bidder 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 items etc. by the related vendors, to whom the Bidder 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 bidder 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 bidder to rectify the same. **CREDA may impose penalty for such rejection up to the 200% cost of the entire item/work.** Habitual/repeated offenders shall be black listed/debarred to participate in the any Bid/ Activity of CREDA for **a period up to three (3) years.** The eligible bidder on receipt of such notices shall rectify or replace the defective material and rectify the work free of cost. If the eligible bidder 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 bidder plus **15%** service charges of the cost of such rectification, from the eligible bidder 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 bidder 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 is delayed due to any reason beyond the control of the eligible bidder, the eligible bidder 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/completion date of the items/works 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 -

(I) The items shall be made in India.

(II) The eligible bidder has to ensure that equipment's as per Technical Requirements of guidelines of CREDA as complied with. The material/works for which CREDA or BIS/IEC 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 items should be submitted to the engineer-in-charge of the works before installation of the same.

(III) Successful bidder shall have to submit Manufacture Authorization Form (MAF) from manufacture of electrical/electronic and fabrication items/equipment which he is going to supply, **no payment shall be made if he fails to do so**. The bidder shall submit a valid Manufacturer's Authorization Letter (MAF) along with the bid, duly issued by the Original Equipment Manufacturer (OEM), in the prescribed format provided in **Annexure-04** of the tender document

(IV) Eligible bidder should submit warrantee Agreement for two **year** for Items with manufacturer or distributors certified by the manufacturer before supply of items and execution of works, for any manufacturing defects or bad workmanship.

13. WARRANTEE PERIOD AND POST SUPPLY SERVICES -

A. The work done/material supplied by the eligible bidder should be warranted for satisfactory operation and against any defect in material and workmanship including items and other balance of equipment's, for a period of two year**,** from the date of supply/completion of the items/work.

B. 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.

C. The warrantee period shall be extended by the period during which the items/work remains non-operative due to reasons within control of the eligible bidders.

D. This warrantee must be an onsite warrantee and the eligible bidder will have to replace the defective material within **7 days** positively from the date of information given to him.

E. Care should necessarily be taken to make the items operational, once the reporting of the fault/non-operational status is done, within a week. If the items are not made operational within **7 days** CREDA may rectify the same at the cost of bidder and the warrantee period shall be extended for a month for the same.

F. Eligible Bidder shall have to establish their service stations in headquarter and shall have to keep sufficient quantity of spares and man power to ensure proper service network for taking care of smooth functioning of items supplied by them. Eligible bidder shall have to give a toll-free number to register complaints.

14. TERMS OF PAYMENT -

The following terms of payment shall apply for the Bid -

A. **90%** of the eligible payment (Excluding GST) as per the supply/work Order after satisfactory supply and performance testing of the works at site with proper handing over.

B. Balance **10%** of the eligible payment (Excluding GST) shall be retained by CREDA as Performance Security for a period of **24 months.**

C. Goods and Services Tax (GST) shall be paid separately, as applicable, in accordance with the prevailing GST Act, Rules, Notifications, Circulars, and amendments issued by the Government of India from time to time. The GST component shall be released against

submission of a valid tax invoice and other requisite documents as prescribed under the applicable GST regulations.

15. PENALTY FOR DELAY IN COMPLETION OF CONTRACT -

A. 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 Contractor/SI as penalty of **half (0.5) percent per week or up to Two percent (2%) per month** of the system price excluding GST for every delayed system. For this purpose, the date of taking over shall be reckoned as the date of completion. The total penalty shall not exceed 5% (Five Percent) of the cost. The eligible SI shall not be liable for any penalty for delay or for failure to perform the contract for reasons of FORCE MAJEURE. Additionally, CREDA reserves the right to black list or debar such System integrator to participate in the any Bid/ Activity of CREDA for a **period up to three (3) years** due to delay in work.

B. Review of the progress of supply of the electrical items, Fabrication work allocated to bidders shall be done time to time by CREDA and if the progress of supply of electrical items is found unsatisfactory, the allocation of entire remaining supply or their part of can be re-allocated to other bidders as per discretion of CREDA.

16. SECURITY DEPOSIT (SD) -

A. The Earnest Money shall be retained by CREDA for a period up to which the tender/RC is live.

B. Beside this, **10%** of the cost shall also be retained as SD during the period of warrantee. No interest shall be payable on the Security Deposit.

C. Period for which EMD and SD are to be retained may be extended in case the warrantee period is extended due to fault in the material supplied.

17. INSURANCE -

A. The eligible bidder shall arrange insurance coverage for the materials at his/ beneficiary's custody for the work under execution and successful commissioning and subsequent handover to the beneficiary. The eligible bidder shall take up insurance or such other measures for the manpower so as to cover the claim for damage / accident under workmen's compensation Act and other applicable State/Central laws. CREDA shall not bear any responsibility on this account.

B. Eligible bidder shall arrange for insurance coverage for complete material supplied during warrantee period from the date of supply/work. Insurance should cover for damage and theft. In case of such incidence, bidder must replace the lost/damaged part within **7 days** from the date of intimation.

18. PENALTY DUE FROM THE ELIGIBLE BIDDER -

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

19. ELIGIBLE BIDDER'S RESPONSIBILITY -

Notwithstanding anything mentioned in the specifications of subsequent approval or acceptance of the items by CREDA, if any, the ultimate responsibility for satisfactory performance of the entrusted work shall rest with the eligible bidders. If in any case the eligible bidder does not complete the Supply/work as per the supply/work Orders issued to them then CREDA may take over the task & complete the project at the risk and cost of eligible bidder and the bidder can be debarred or blacklisted for up to three years for taking part any activities of CREDA.

20. RESPONSIBILITY TO RECTIFY THE LOSS AND DAMAGE -

If any loss or damage occurs to the work or any part thereof or materials/plant/equipment's for incorporation therein the period for which the eligible bidder is responsible for the cause thereof or from any cause whatsoever, the eligible bidder 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 bidder 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.

21. RESPONSIBILITY TOWARDS THE WORKMAN OR OUT SIDERS –

A. **The eligible bidder 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 bidder 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 bidders. The eligible bidder shall also be responsible for any claims of the workers including, labour payments PF, Accidental Insurance, Gratuity, ESI & other legal obligations.

D. CREDA shall have all rights to deduct such claims of payments from bidder in case of complaints of such violations.

22. NON-ASSIGNMENTS -

The eligible bidder shall not assign or transfer the supply/work orders issued as per this contract or any part thereof if eligible bidder transfer/assigned/sublet full or any part of work allocated to him then he shall be liable to debar/black listed from any Bid/Activity of CREDA for a period up to three (3) years.

23. 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 bidder of his obligations for due performance of the contract.

24. 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 bidder 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.

25. LAWS GOVERNING CONTRACT -

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

26. 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.

27. CORRESPONDENCE -

A. Any notice to the eligible bidder under the terms of the contract shall be served by registered mail to the registered office of the eligible bidder or by hand to the authorized local representative of the eligible bidder and copy by post to the eligible bidder's principal place of business.

B. Any notice to CREDA shall be served to the Chief Engineer, CREDA Raipur in the same manner.

28. SECRECY -

The eligible bidder 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.

29. AGREEMENT -

The successful eligible bidder shall have to enter into an agreement with the CREDA in the approved contract agreement form within **10 days** of the receipt of call from CREDA.

30. DECLARATION OF CONFLICT OF INTEREST –

a. Any regular employee working or worked on basis of contract or through placement agency cannot work directly or indirectly in any scheme of CREDA. If such a person is found working with any vendor or through sublet then, such vendor shall be blacklisted for a period up to three (3) years.

b. The bidder shall not be permitted to Bid for this Tender, if any relative of bidder is employee of CREDA working as regular employee or work on the basis of contract or through placement agency.

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.

C. Bidder must produce an affidavit (Annexure-03) 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.

31. BID 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. Technically qualified bidders quoting rates up to a maximum of 15% above the L-1 rate (L-1 + 15%) shall only be considered for allocation of work and contract/agreement . However, agreement and work allocation to such bidders shall be considered only after obtaining their written consent to execute the work at the L-1 rate.

D. Merely falling within the prescribed 15% upper limit shall not confer any automatic right to work allocation upon any bidder, nor shall it be mandatory to allocate work to all such bidders. The decision regarding work allocation shall be taken on the basis of work availability, the technical capacity of the concerned bidder, past performance, available resources, regional requirements and the possibility of timely execution.

E. The Bidder shall have to quote rates for all the items mentioned in the price bid, partial bidding shall not be allowed.

F. Conditional Bids shall not be accepted.

G. 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.

32. EVALUTION OF PRICE BID -

Price bid shall be evaluated on the basis of Quoted rates. Lowest rates of each category of Items/works shall be considered however CREDA shall have discretionary power to amend/lower the rates.

33. ALLOCATION OF TARGETS AND AREA OF WORK -

The supply shall preferably be allotted to eligible bidders on L-1 rates subjected to rate reasonability however the CREDA has sole discretionary power to award work to any other eligible bidder on L-1 rates if he agreed to supply/work on L-1 rates. The allocation of work will be based on the project, work and demand received from field offices of CREDA. In this regard, the Chief Executive Officer, CREDA, shall have the authority to allocate additional work in accordance with administrative and operational requirements, so that effective and timely implementation of the works is not hindered

34. 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 Bidder) have read all the above stated details & accept to comply with it in total

(Name, Signature & Seal of the bidder)

SECTION-3
TECHNICAL SPECIFICATION

1. TECHNICAL SPECIFICATION OF ACDB, DCDB, AJB, MJB, CONTROL PANEL

1.1 AC DISTRIBUTION BOARD (ACDB):

This shall consist of box of suitable powder coated metal casting. One feeder per phase shall be provided in ACDB with MCB of suitable capacity installed at each feeder in the ACDB. One Electronic Energy Meter, ISI make, Single / Three Phase, of good quality shall also be installed in ACDB suitable placed to measure the consumption of power from SPV Power Plant. Proper rating MCB shall be installed at every feeder (in case of single-phase output also, there shall be three feeders) to protect feeders from the short circuit current as per the requirement of the site & instructions of CREDA. A separate dedicated feeder from conventional/grid line to PCU as well as ACDB should also be installed, as per CREDA's instruction. A separate change over switch of proper rating should also be suitably installed in the ACDB to isolate the existing connected load from the Solar System & cater the power to the existing load from conventional power (Grid), in case of emergency. A SPD must be provided in the ACDB to protect the system from the surge.

1.2 DC DISTRIBUTION BOARD (DCDB):

This shall consist of suitable powder coated metal casting. In this box a separate arrangement which shall consist of MCCBs of suitable specifications & which can withstand respective flow of current, with the purpose of providing the option for isolating the battery bank & SPV arrays should be made. There shall be copper bus bars of suitable rating. Proper rating HRC fuse & MCCB/Isolator for DC application should be suitably installed in DCDB as battery bank isolator. Best quality DC Ah meter has to be installed to measure the cumulative charging & discharging status of battery bank.

ARRAY JUNCTION BOX (AJB):

AJB shall have terminals of bus-bar arrangement of appropriate size Junction boxes shall have suitable cable entry with suitable glanding arrangement for both input and output cables. AJB should have suitable arrangement Reverse Blocking diode (Schottky diode of suitable rating with respect to the capacity of array)) connected in such a manner that the diode is mounted on a proper heat sink so as to increase the life of diode. Suitable MOV/SPD has to be installed in AJB for protection purpose. Schottky diode & MOV/SPD should be installed in AJB.

MAIN JUNCTION BOX (MJB)

In MJB the terminals shall be of copper bus-bar arrangement of appropriate size Junction boxes shall have suitable cable entry with suitable glanding arrangement for both input and output cables. Suitable markings on the bus bars shall have to be provided to identify the bus bars etc.

CONTROL PANEL

Control Panel consisting all features, controls, metering, suitable SPD and Monitoring instruments required for ACDB &DCDB suitable for SPVPP (Cap 1 KWp to 3 KWp at 48 Volts DC, Cap 4 KWp to 6 KWp at 96 Volts DC) Output 230 Volts AC Single Phase according to MNRE Guidelines.

2. SPECIFICATION OF WIRES AND CABLES:-

1. All cables & wires shall be as per ISI specifications.
2. Power cable – Unarmored/Armored with Aluminum/Copper Conductor XLPE insulated, PVC sheathed power cable conforming **to IS:7098(Part 01)** latest amendments

2.1) 4 Sq mm,2 Core

2.2) 6 Sq mm ,2 core

2.3) 10 Sq mm ,4 core

2.4) 16 Sq mm ,4 core

2.5) 25 Sq mm ,4 core

3. All copper cables and wires used shall be of copper conductors of suitably cross-section with cross-linked polythene or polyvinyl insulated with polyvinyl sheath. Stranded and flexible cable shall be used. Non-stranded cables shall not be acceptable except otherwise mentioned and permitted.
4. Heavy duty,1100V Grade, Single core, Stranded annealed copper conductor, FRLS PVC insulated multistrand wire and cable P.V.C. insulated twisted bright annealed Copper 1100 Volts, **IS 694:2010 latest amendments,** Size: - 1.5 Sq. mm,2.5 Sqmm,4Sqmm,6Sqmm and so on.
5. Exposed cables, wherever, used, shall have UV resistant jacket besides being water resistant.
6. Buried underground cables shall be armoured.
7. Conductor sizes of cables and wires shall be selected based on efficient design criteria such that the overall electrical energy loss in any section of cable or wire is not more than three (3) percent under the designed operating conditions. Conductor sizes of less than 1.5 mm shall not be accepted.
8. Cable/Wire connections shall be soldered, crimp-on type or split-bolt type. Wire nut connectors shall not be used.
9. All cables shall be adequately supported. Outside of the terminal/panels/enclosures shall be protected by conduits. Cables shall be provided with dry type compression glands wherever they enter junction boxes/panels/enclosures.
10. All cables shall be suitably marked or color coded for easy identification. The marking of length of the cable should clearly marked on the cable
11. Cables and wires shall confirm to the relevant standards. Bidders to specify the specification, for any additional features.
12. Cables should in a packing of at least 100 m each.

3. TECHNICAL SPECIFICATION OF ELECTRICAL AND ELECTRONICS ITEMS ALONG WITH ELECTRICAL HARDWARE

1. Electronic circuits in use shall be modular IE standard in design to allow for ease of service, maintenance and replacement.
2. All electronic circuits shall be housed in suitable packages or panels or enclosures so as to conceal them from general public. However, these shall be easily accessible to trained technicians for maintenance.
3. Suitable number of protective fuses shall be included. Safe accessibility for easy replacement, if required, shall be ensured.
4. The control circuit shall provide for an emergency shut down for the system and manual reconnect facilities.
5. Power Factor of all types of Electronic Ballast should be> 0.90.
6. Only mercury displacement relays or equivalent shall be used in the power circuits. Mechanical relays are not acceptable.
7. The electronic circuitry shall be rated at least for an operating temperature of 0°C to 48°C and a storage temperature - 10°C + 55°C.

HARDWARE

1. The hardware material shall be of ISI specification wherever mentioned in the Price Bid. If mentioned items does not come in the category of specified in ISI then also the quality of those items shall be of best available in the category.
2. All the material shall match with the requirement of the purpose of installation at site.

Rest all other technical specification shall be strictly as mentioned in the price bid

4. TECHNICAL SPECIFICATION OF ELECTRICAL EQUIPMENT

S.	Items	Technical Specification
1	Timer	Digital Timer with inbuilt contactor (up to 3Kw SPVPP) with 10 time zone setting as per ISI standards
2		Digital Timer with inbuilt contactor (4KWp TO 10 KWp SPVPP) with 10 time zone setting as per ISI standards setting
3	Light Source	White Light Emitting Diode 30W x 06 nos. Total system Wattage (Luminary Wattage) of each luminary should be maximum 30W DC operated confirming to lP66 or above. The LED should be SMD LED Chip of Nichia/ CREE/ Osram/ Philips/ LG /Samsung /Refond/ Everlight Seoul/ Bridgelux or equivalent. The LED efficacy should be minimum 140 lm/W (as per LM 80) CCT 5500 - 6500 K, CRI Minimum 70 & LED wattage minimum 01W. The Luminous flux should be minimum 4000 lumens & Luminary Must be LM-79 certified from MNRE/NABL Lab. The colour temperature of White LED used in the system should be in the range of 5500K-6500K. LEDs should not emit ultraviolet light. (strictly as per IS 16101, IS 16102, IS 16103 and IS 16107)

<table>
<tr><td rowspan="10">4</td><td rowspan="10">SOLAR CHARGE CONTROLLER UNIT</td><td>Charge Controller Type</td><td>Maximum Power Point Tracking (MPPT) as per MNRE</td></tr>
<tr><td>Charging Current Rating at 12V</td><td>20A</td></tr>
<tr><td>Load Current Rating at 12V</td><td>15A</td></tr>
<tr><td>Solar Input Power</td><td>150Wp with 22.23V(VOC) and 18.11V(VMP)</td></tr>
<tr><td>Idle Current (Self Consumption)</td><td><20mA</td></tr>
<tr><td>Efficiency</td><td>>90%</td></tr>
<tr><td>Temperature Compensation</td><td>3mV/ oC</td></tr>
<tr><td>Indications</td><td>Green -->Charging Under Process Red --> Battery Low</td></tr>
<tr><td>Battery Voltage Settings</td><td>Boost Charging - 14.70V± 0.20V
Float Charging - 14.00 V± 0.20V
Battery Low Load Disconnect - 10.80V± 0.20V
Load Reconnect - 12.60V± 0.20V</td></tr>
<tr><td>Protections</td><td>• Transient / Surge
• Over Charging / Deep Discharge
• Overload - Auto shutdown and restart
• Solar and Battery Reverse Protection
• Reverse Current from Battery at Night</td></tr>
<tr><td>5</td><td>BLDC FAN</td><td colspan="2">1X20W Fan (PM BLDC)</td></tr>
</table>

5. The Technical specification of fabrication items are: -

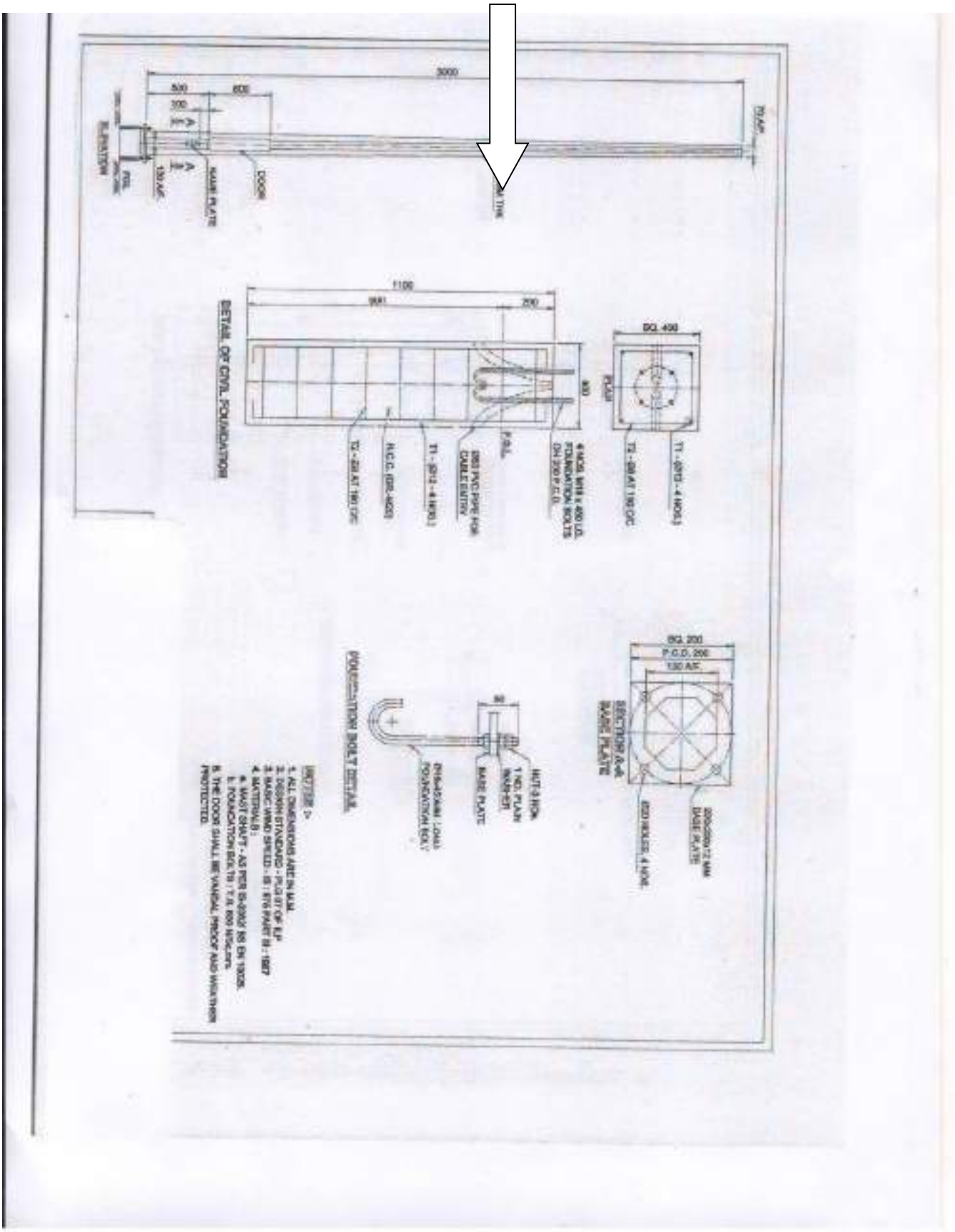
S. No.	Name of Fabrication Item	Description of Item
1	**Octagonal GI Pole**	Supply of hot dipped galvanized (in single dip to average 80 micron) Octagonal pole made of 3mm thick steel plate having bases plate 200x200x12mm, Window and flush cover with hacking arrangement at height from base for cable termination block, pole suitably reinforced with welded steel section at window cut section to make the strength of pole unaffected, with 4 nos. 450 mm long, 16mm dia hot dipped GI foundation bolts (EN8 grade)
1.1		3Meter height Approx Min Weight 27 kg bare pole
1.2		4Meter height Approx Min Weight 35 kg bare pole
1.3		5Meter height Approx Min Weight 42 kg bare pole
2		Supply of hot dipped galvanized (in single dip to average 80 micron) Octagonal pole made of 3mm thick steel plate having bases plate 200x200x12mm, Window and flush cover with hacking arrangement at height from base for cable termination block, pole suitably reinforced with welded steel section at window cut section to make the strength of pole unaffected, with 4 nos. 600 mm long, 20mm dia hot dipped GI foundation bolts (EN8 grade)
2.1		6Meter height Approx Min Weight 50 kg bare pole
2.2		7Meter height Approx Min Weight 57 kg bare pole
3		Supply of hot dipped galvanized (in single dip to average 80 micron) Octagonal pole made of 3mm thick steel plate having bases plate 200x200x16mm, Window and flush cover with hacking arrangement at height from base for cable termination block, pole suitably reinforced with welded steel section at window cut section to make the strength of pole unaffected, with 4 nos. 600 mm long, 20mm dia hot dipped GI foundation bolts (EN8 grade)
3.1		9Meter height Approx Min Weight 84 kg bare pole
4		Supply of hot dipped galvanized (in single dip to average 80 micron) Octagonal pole made of 3mm thick steel plate having bases plate 250x250x16mm, Window and flush cover with hacking arrangement at height from base for cable termination block, pole suitably reinforced with welded steel section at window cut section to make the strength of pole unaffected, with 4 nos. 750 mm long, 24mm dia hot dipped GI foundation bolts (EN8 grade)
4.1		10Meter height Approx Min Weight 101 kg bare pole
5	**Octagonal GI Pole**	Supply of hot dipped galvanized (in single dip to average 80 micron) Octagonal pole made of 3mm thick steel plate having bases plate 275x275x16mm, Window and flush cover with hacking arrangement at height from base for cable termination block, pole suitably reinforced with welded steel section at window cut section to make the strength of pole unaffected, with

		4 nos. 750 mm long, 24mm dia hot dipped GI foundation bolts (EN8 grade)
5.1		11Meter height Approx Min Weight 133 kg bare pole
5.2		12Meter height Approx Min Weight 160 kg bare pole
6	**MS Pole**	Fabrication and supply of M.S. Pole, with ISI "B" Class M.S. Pipe as per drawing and specification enclosed with all material and with two coat Zink Chromate primer and tow coat Silver/Aluminium Paint of standard brand 12" x 12" base plate (10 thickness) foundation in MS Pole with stiffener and 4 Nos. T-bolt with double nuts (20 mm. Dia& 900 mm. Length. Nut bolt arrangement in 4 feet from the bottom of pole.
6.1		5.7 Meter Height Approx Min weight 40-42 kg bare pole
6.2		7.5 Meter Height Approx Min Weight 80-82 kg bare pole
7	**GI Pole**	Fabrication & Supply of ISI mark G.I. pipe poles made of "B" class making necessary hole for cable entry and providing earthing stud (Welded at specified height) as per specifications and drawing
7.1		5.7 Meter Height Approx Min weight 45-48 kg bare pole
7.2		7.5 Meter Height Approx Min weight 62-65 kg bare pole
8	**Decorative pole with street light bracket and luminary**	Fabrication and supply of ISI mark G.I. special type pedestrian pole as per drawing with 25 watt street light luminary warm LED (4.5 Mtr height) with PU painting as per CREDA requirement, Approx Min Weight -35-38 kg including bracket
9		Fabrication and supply of ISI mark G.I. pedestrian pole as per drawing with street light bracket with PU painting as per CREDA requirement (6 Mtr height), approx Min Weight 45-48 kg including bracket
10		Fabrication and supply of ISI mark G.I. street light pole as per drawing with street light bracket (9 Mtr height) with PU painting ,Approx min weight -86-89 kg including bracket
11	**GI Cable Fixture**	Fabrication and supply of ISI mark G.I.cable fixtures Type A,hot dipped galvanized Min Weight:- 4.5Kg
12		Fabrication and supply of ISI mark G.I. cable fixtures Type B, hot dipped galvanized Min Weight:-3.0Kg
13	**GI Pipe**	Fabrication and Supply of ISI mark G.I. pipe "B" Class arrangement(850 mm length and 50 mm dia) for underground cabling in pole near foundation with suitable G.I. clamp for holding ISI mark G.I.pipe "B" Class
14	**Stay Set**	Fabrication & Supply of G.I. stay sets as per specifications and drawing
15	**Street Light Bracket**	Fabrication & supply of ISI mark G.I. pipe "B" Class Street light bracket for mounting Street Light fittings as per specifications and drawing. Approx min. weight 2.75-3.5 Kg

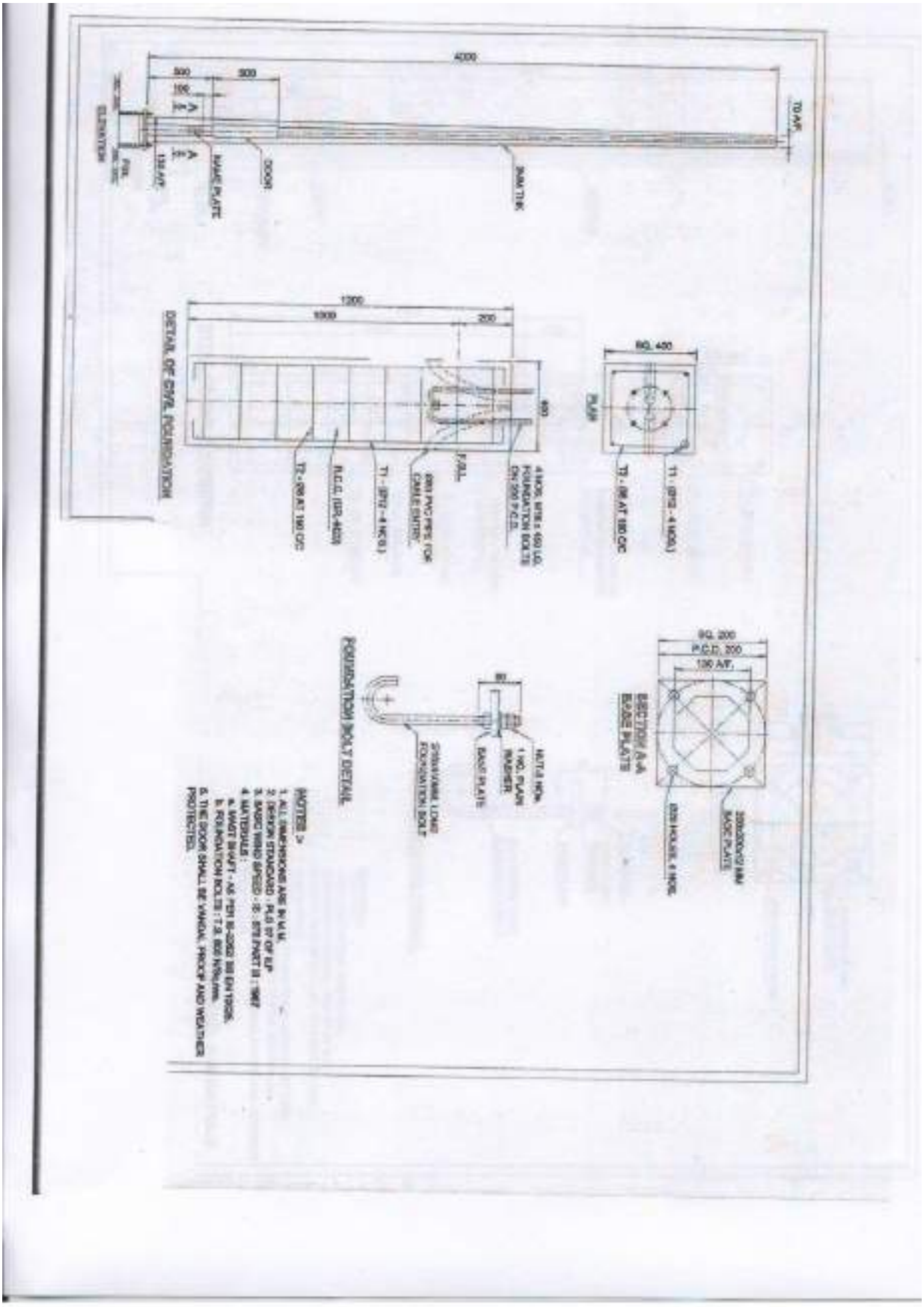
16		Fabrication & supply of ISI mark hot dipped G.I. **Single arm** street light bracket (Size OD 48.3x3.20 MM Thick, Length 1.5Mtr Centre to top with 15' inclination from horizontal plane) for mounting Street Light fittings in **octagonal pole** of various height as per specifications and drawing. Pipe Material IS:2062 (min. Approx weight 8 Kg bare)
17		Fabrication & supply of ISI mark hot dipped G.I .**Double arm** street light bracket(Size OD 48.3x3.20 MM Thick, Length 1.5Mtr Centre to top with 15' inclination from horizontal plane) for mounting Street Light fittings in **octagonal pole** of various height as per specifications and drawing. Pipe Material IS:1161,YST:210Mpa (min. Approx weight 13 Kg bare)
18	**Wall Mount Bracket**	Fabrication & supply of ISI mark G.I. pipe "B" Class Wall Mount Brackets as per specifications and drawing
19	**Structure**	Fabrication and supply of hot dipped galvanised structure for mounting of solar modules or any other structure as per specification, size and design given with all required material, drilling work and two coat steel primer zinc chromate of standard quality
20	**Fencing**	Fabrication and supply of fencing of 10-gauge chain link wire mesh of 75X75 mm opening, fitted with 50X50X5 mm vertical M.S. Angle at spacing of 2.5 mtr & 35X35X5 mm horizontal M.S. Support. Every set of fencing will have one M.S. Angle framed gate with same chain link wire mesh with locking arrangement and two extra posts. Three lane barbed bolts, washer and clit as per enclosed design drawing and specification with two coat steel primer zink chromate silver/aluminium paint of standard brand with installation and fitting of fencing with grouting the poles in 1:2:4 P.C.C. of size 0.45X0.45X0.60 mtr. for given requirement with complete civil material
21	**Solar home light pole specification**	MMP as per drawings should be installed along with the hot dipped galvanized (minimum 80 microns) pole for mounting of SPV modules at site. The panel frame structure should be capable of withstanding a minimum wind load of 150 Km per hour, after grouting and installation. MMP should be sturdy & designed to assist SPV Modules to render maximum discharge. The hardware (fasteners) used for installation of SPV Modules & MMP should be of suitable Stainless Steel (SS 304). Each module should be fastened by theft proof nut built. Module Mounting Pole should have theft proof along with the array support structure for locking arrangement of SPV modules for protecting them from theft. Its size should be with reference to the specifications of the SPV modules such that modules can comfortably **affixed** in the supporting frame while installation. It should not hide any portion of the photovoltaic circuit encapsulated in the lamination of the SPV module, there by affecting the efficiency & rating of the SPV modules. Anti-Theft Nut Bolts of SS (with washers) should also be used for better theft proofing along with MMS

The complete descriptive drawing of above fabrication items are listed as under:-

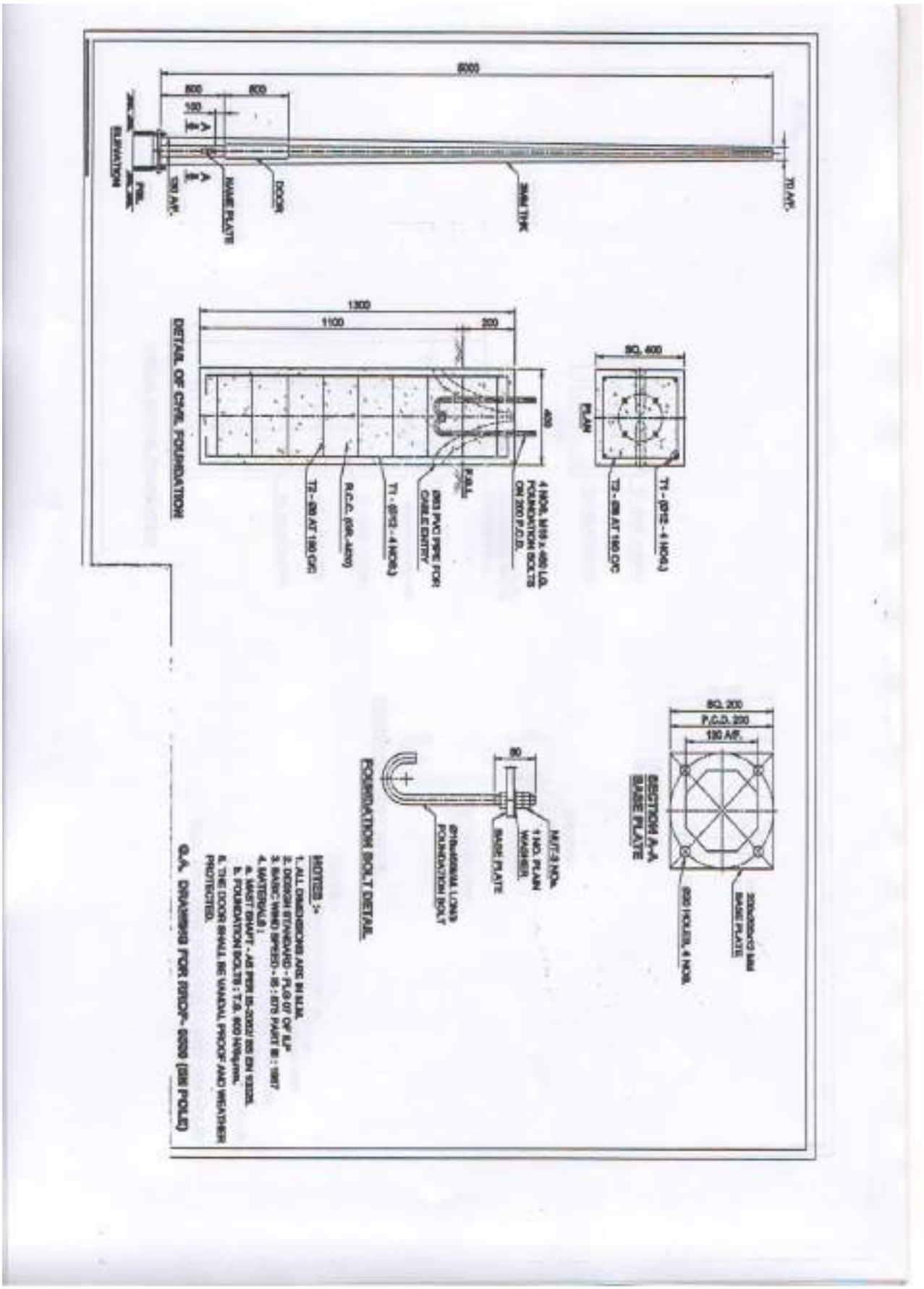
Detailed Drawing of 3m height octagonal pole.



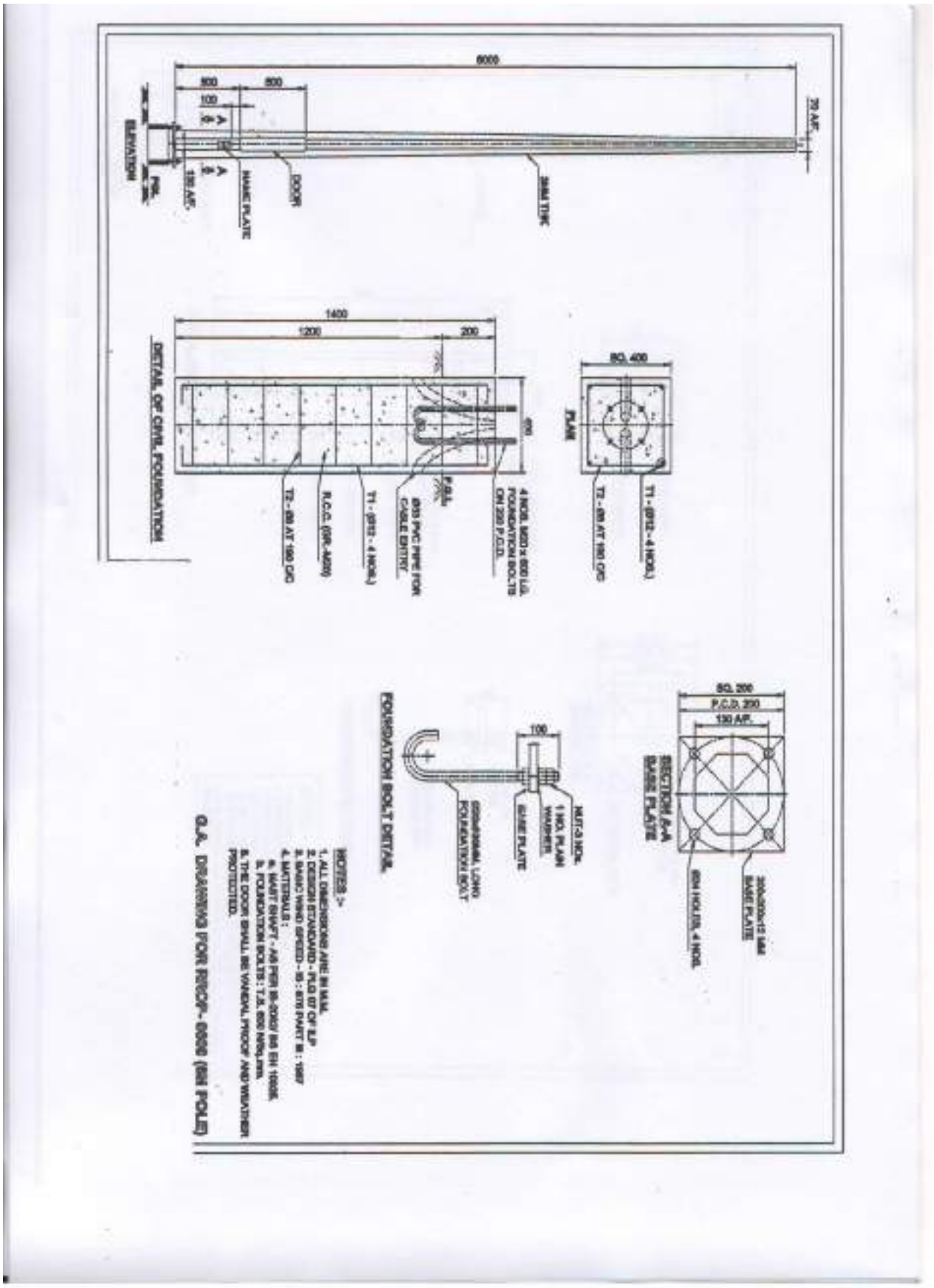
1) Detailed Drawing of 4m height octagonal pole.



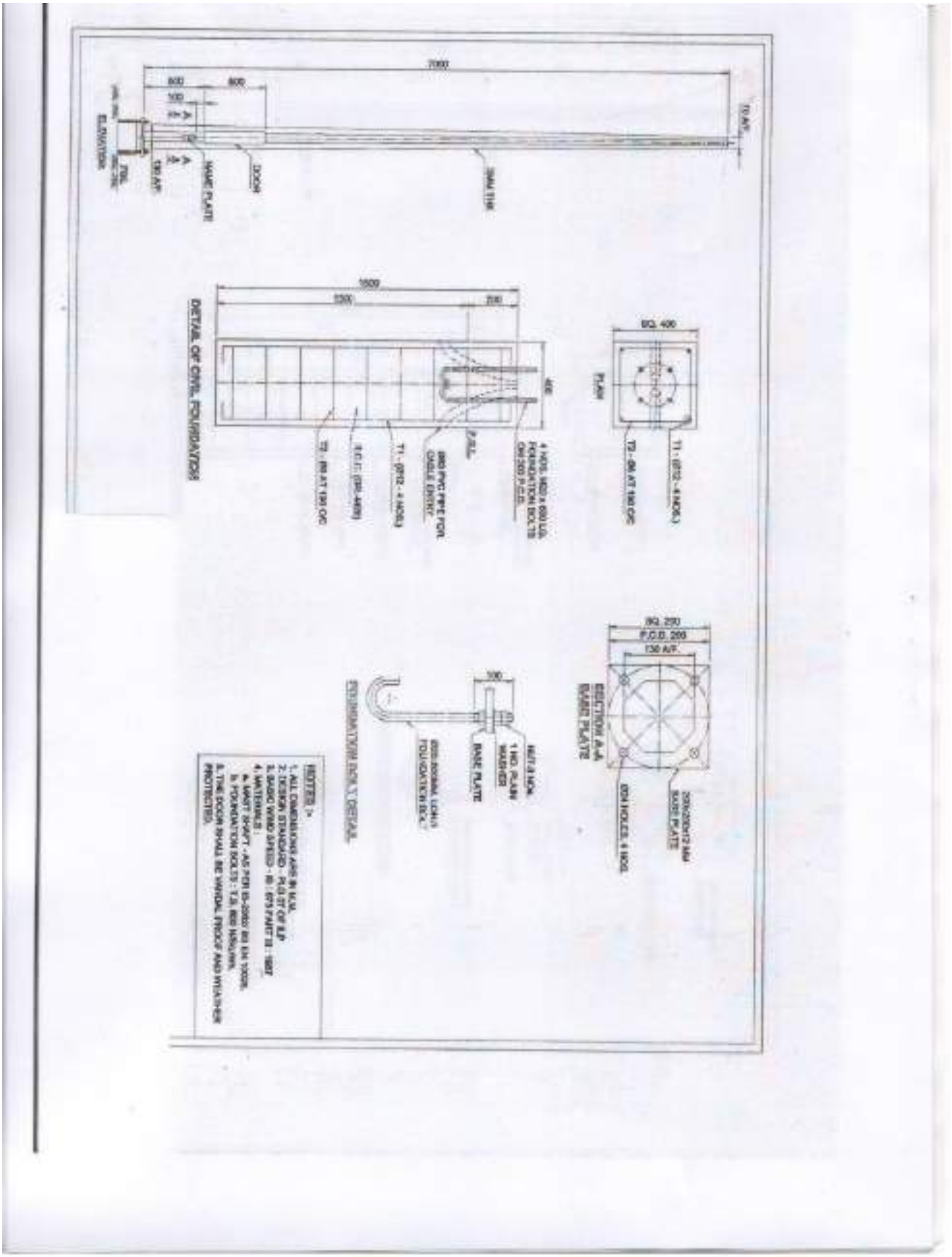
Detailed Drawing of 5m height octagonal pole.



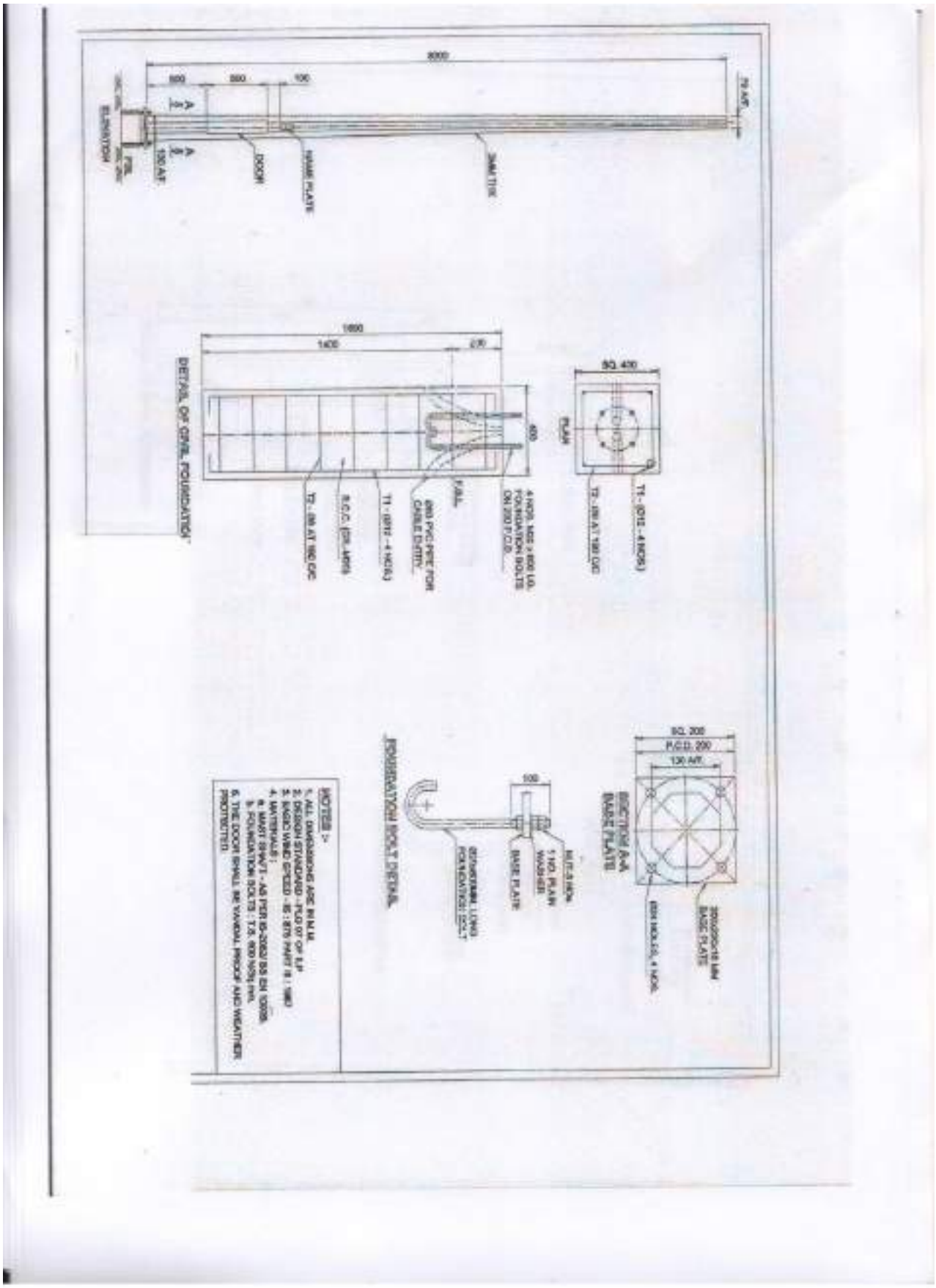
Detailed Drawing of 6m height octagonal pole.



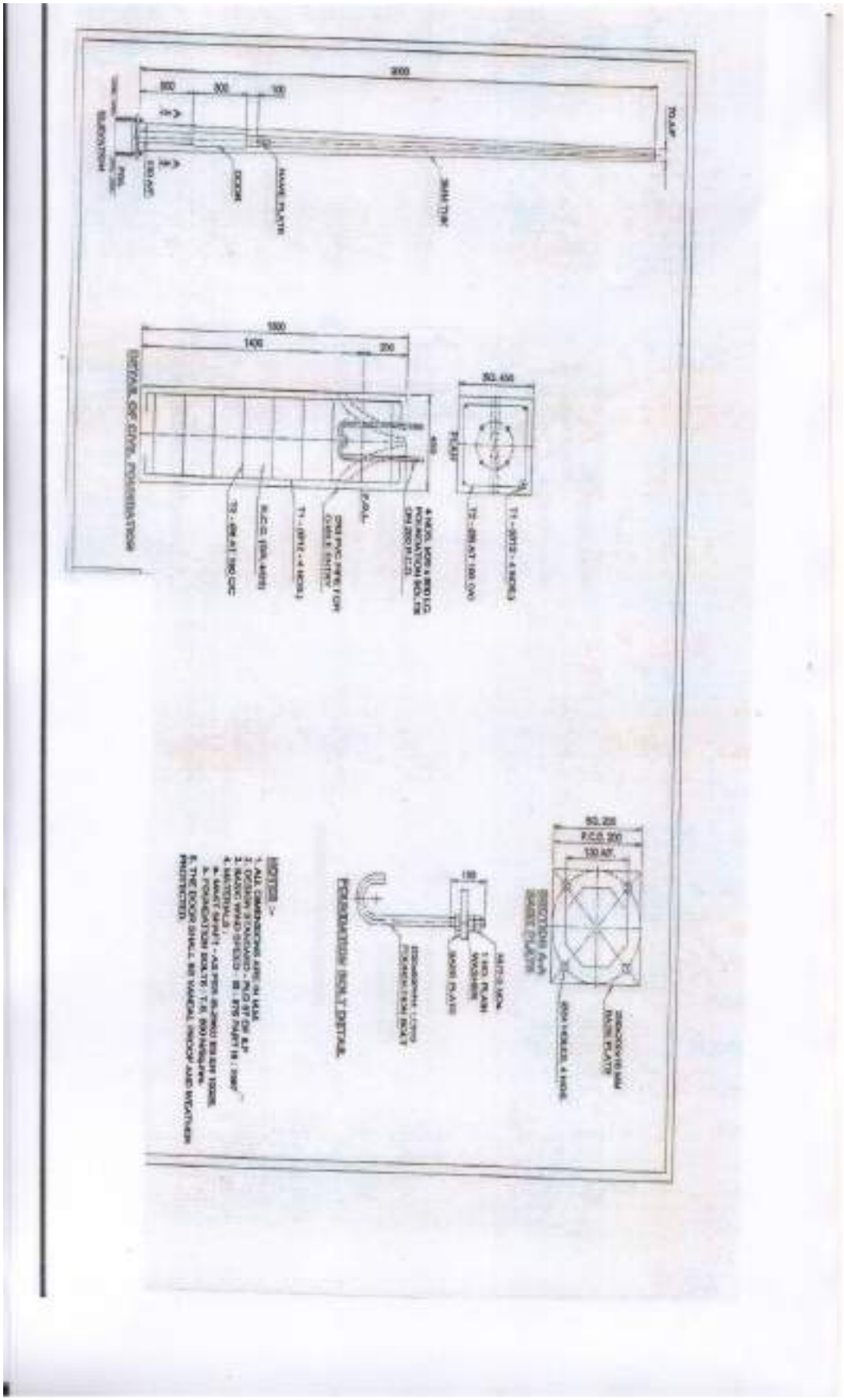
Detailed Drawing of 7m height octagonal pole.



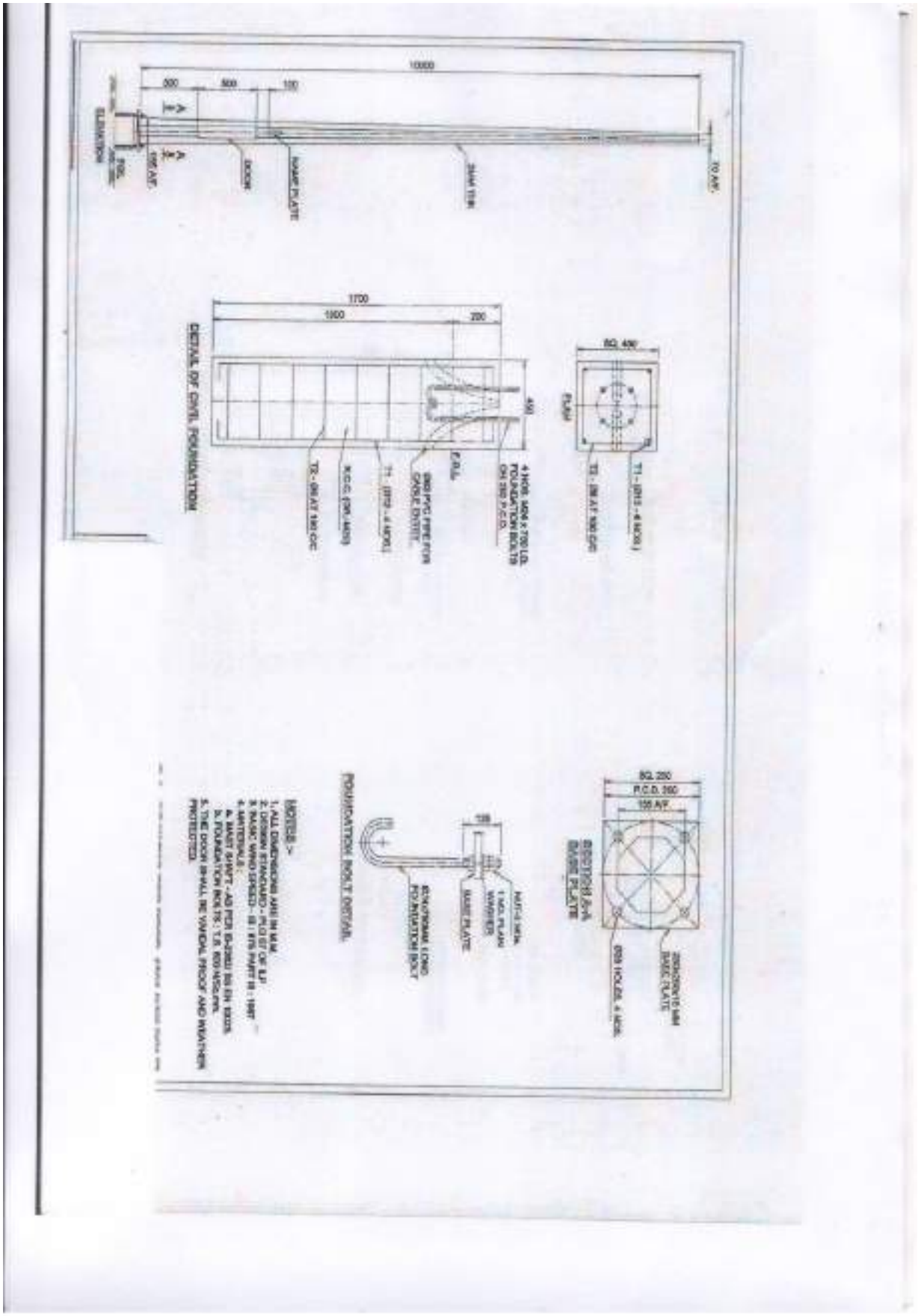
Detailed Drawing of 8m height octagonal pole.



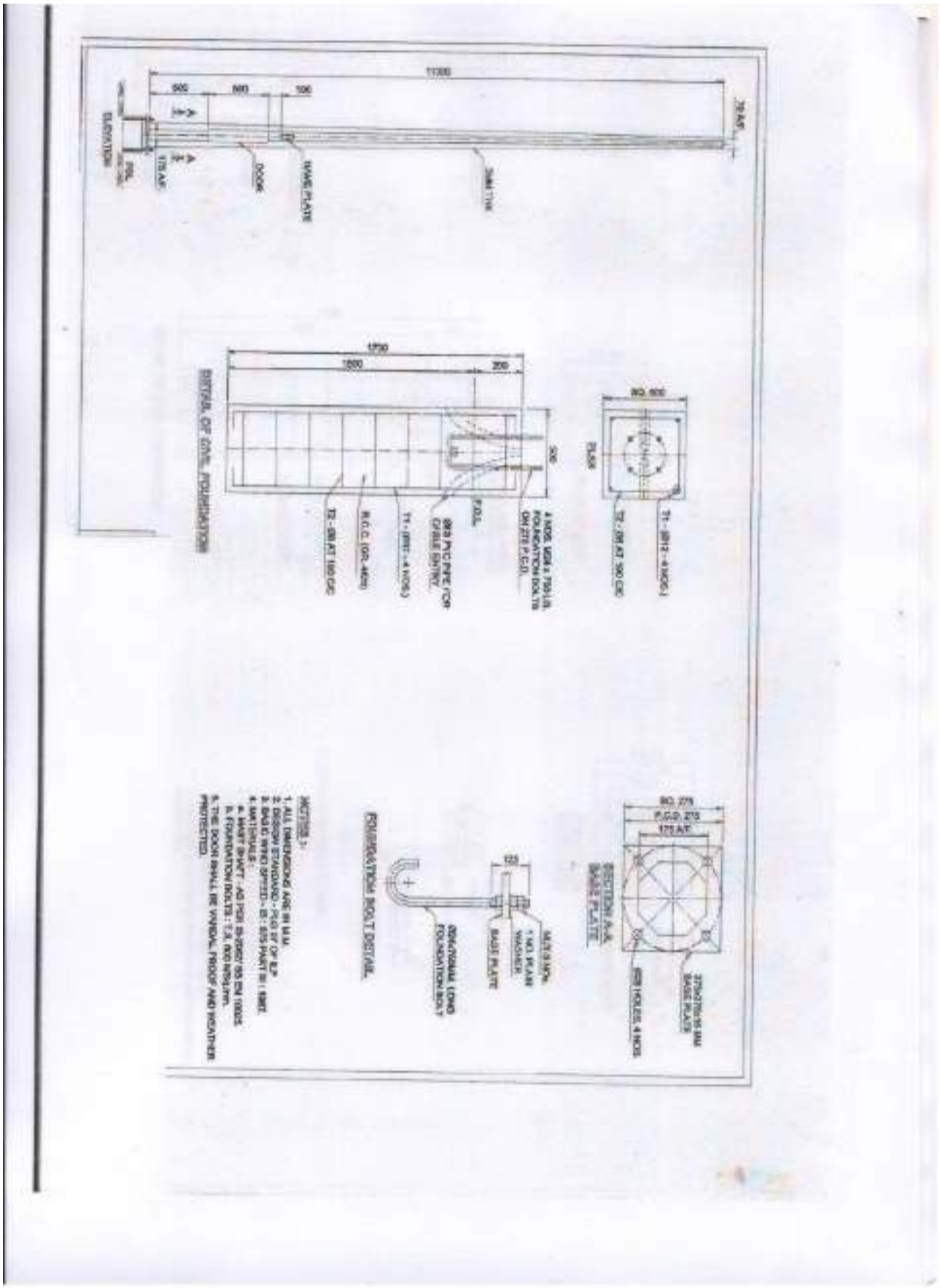
Detailed Drawing of 9m height octagonal pole.



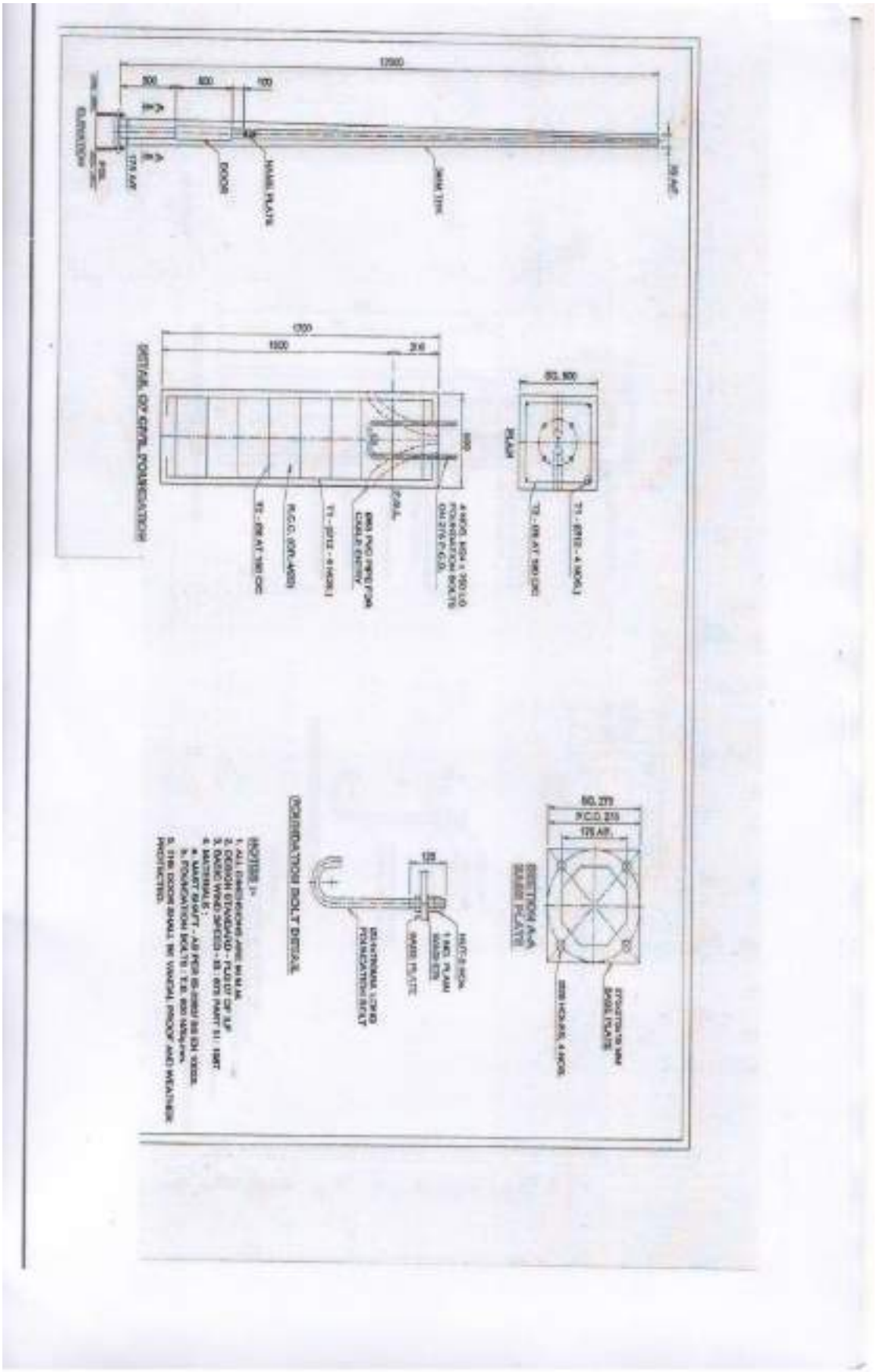
Detailed Drawing of 10m height octagonal pole



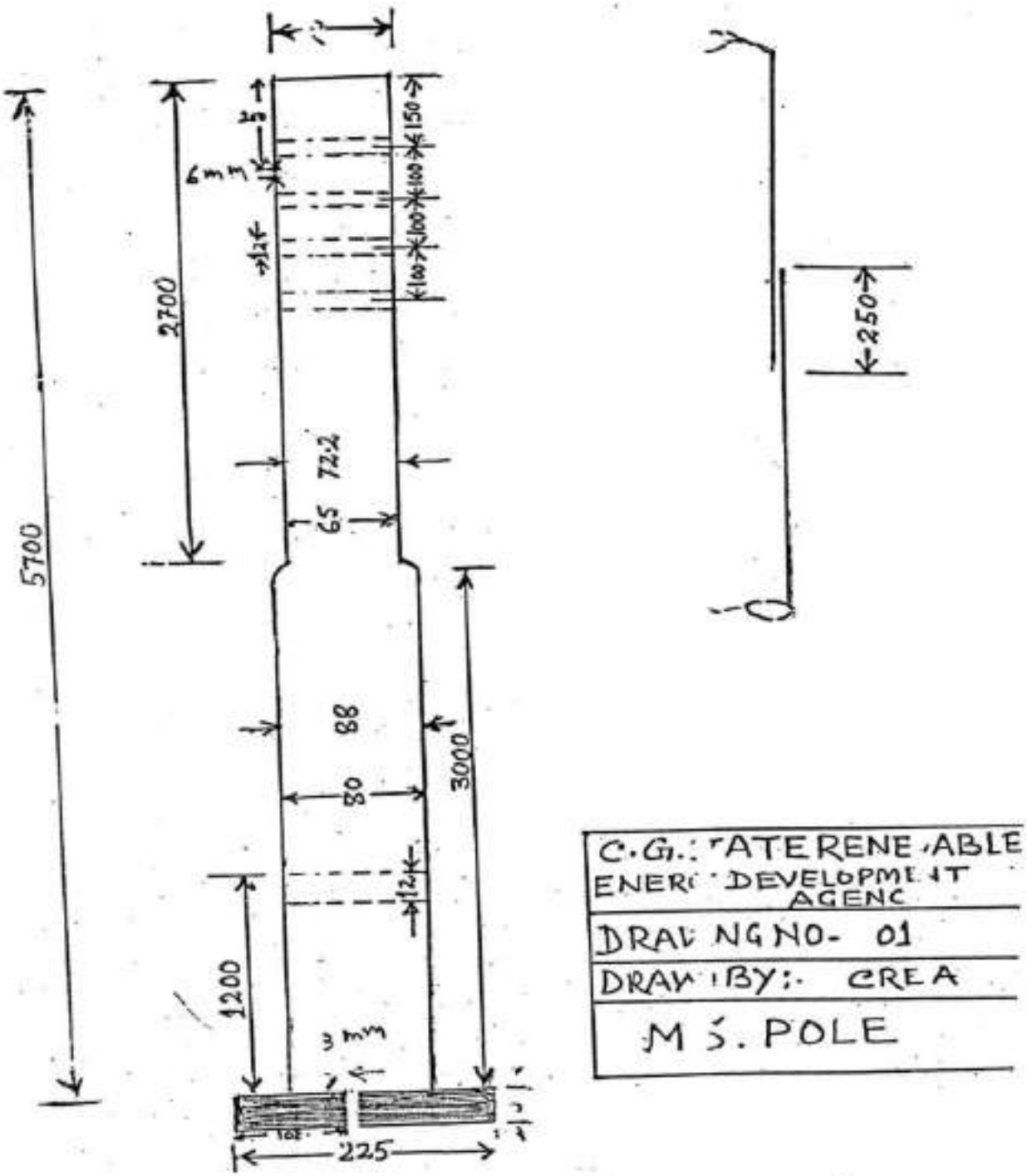
Detailed Drawing of 11m height octagonal pole.



Detailed Drawing of 12m height octagonal pole.



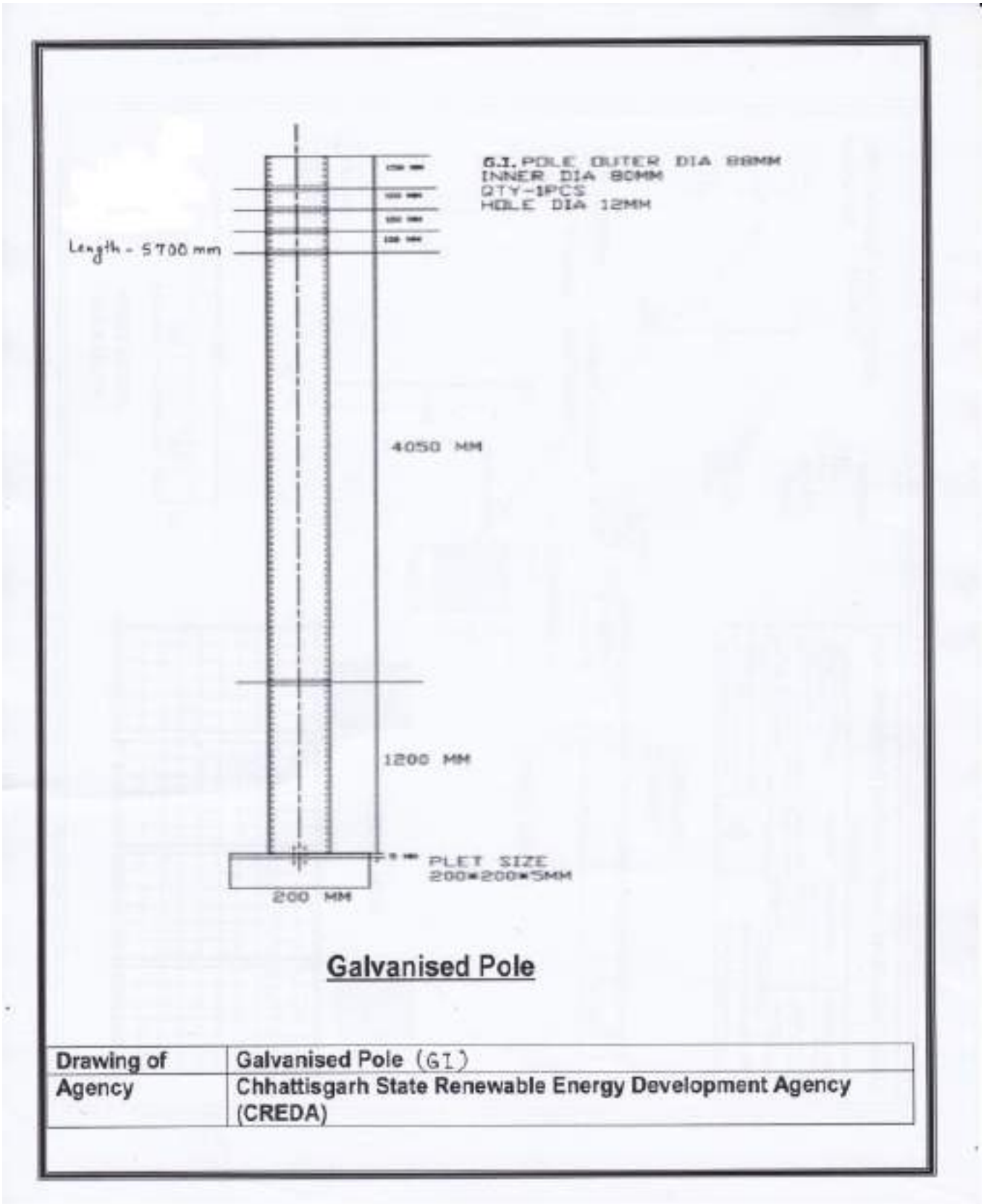
Detailed Drawing of ISI Mark MS Pole Height 5.7 Mtr



ALL DIMENSIONS ARE IN MM.

M.S. POLES

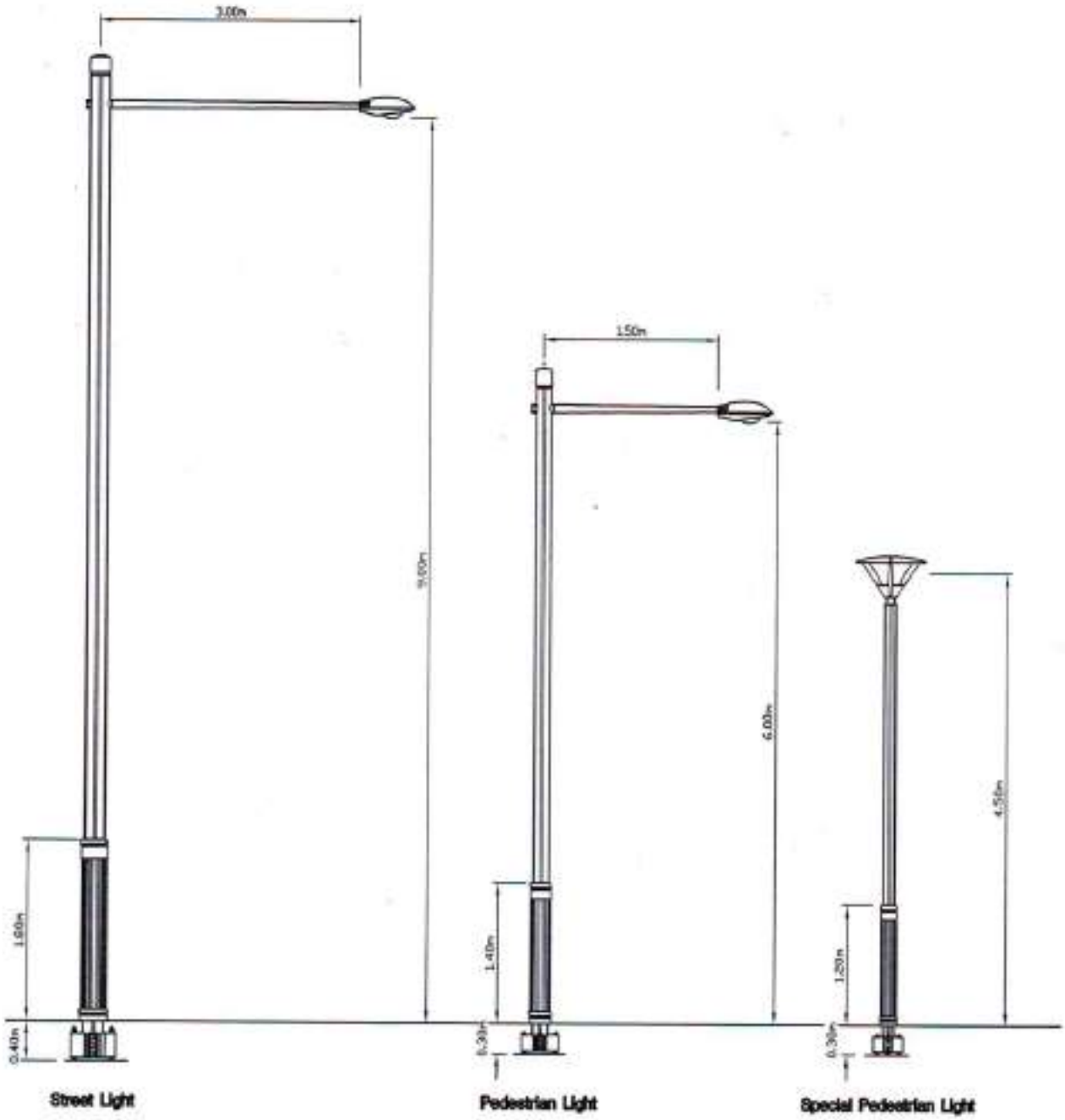
Detailed Drawing of ISI Mark GI Pole B class Height 5.7 Mtr



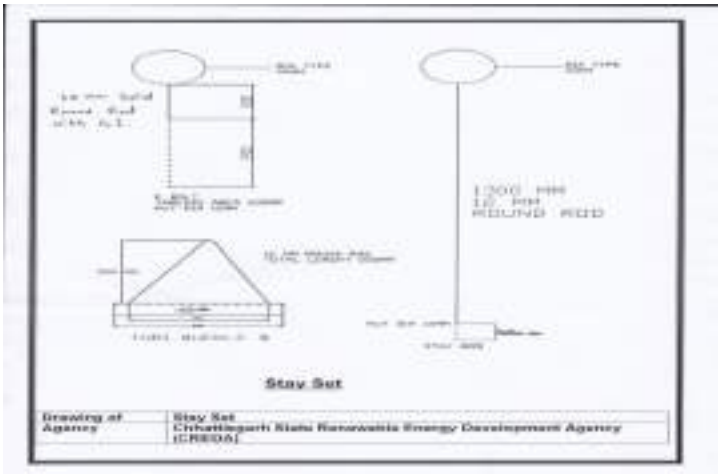
Galvanised Pole

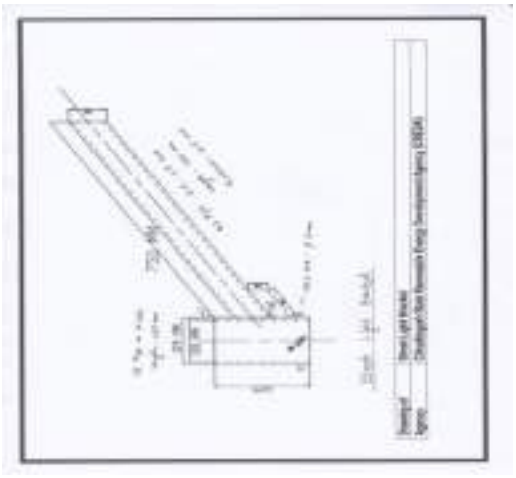
Drawing of	Galvanised Pole (GI)
Agency	Chhattisgarh State Renewable Energy Development Agency (CREDA)

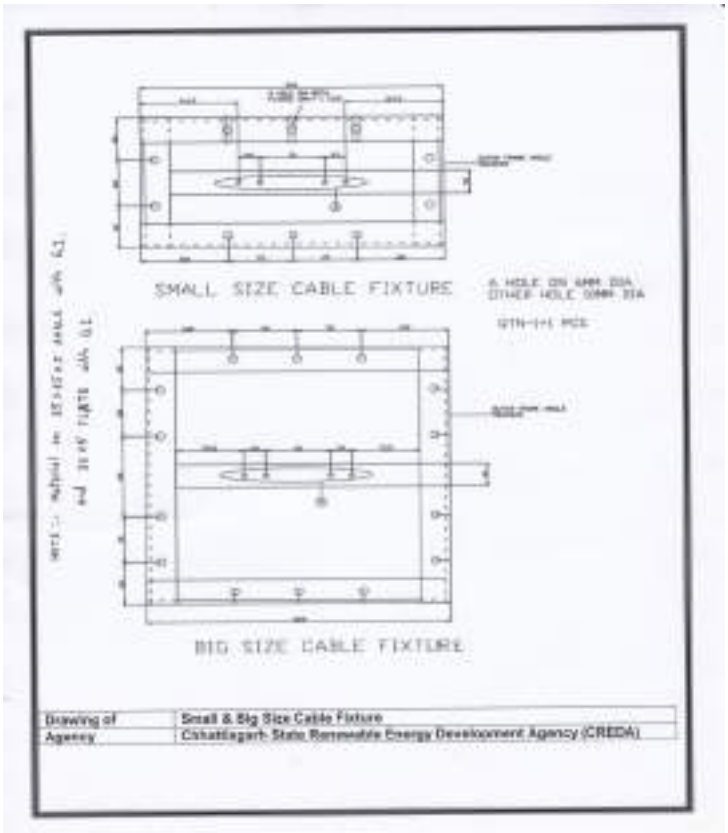
Drawing of ISI Mark G.I. Pole Street Light, Pedestrian Street Light, Special Pedestrian Light with Street Light Bracket, Height 4.5 Mtr,6mtr, 9mtr Above ground level



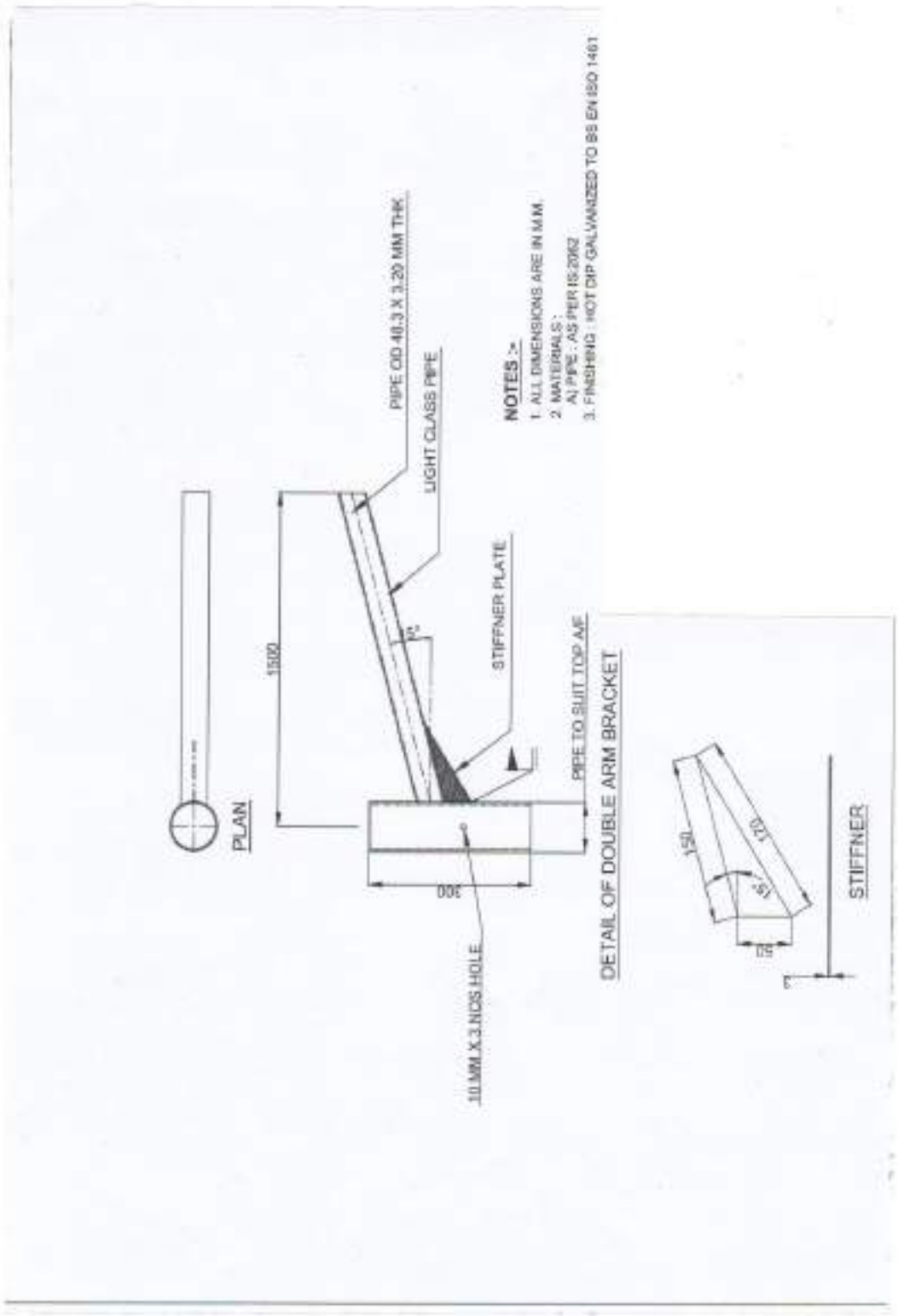
Detailed Drawing of G.I. Stay Set, Street Light Bracket, Pole, Cable Fixture



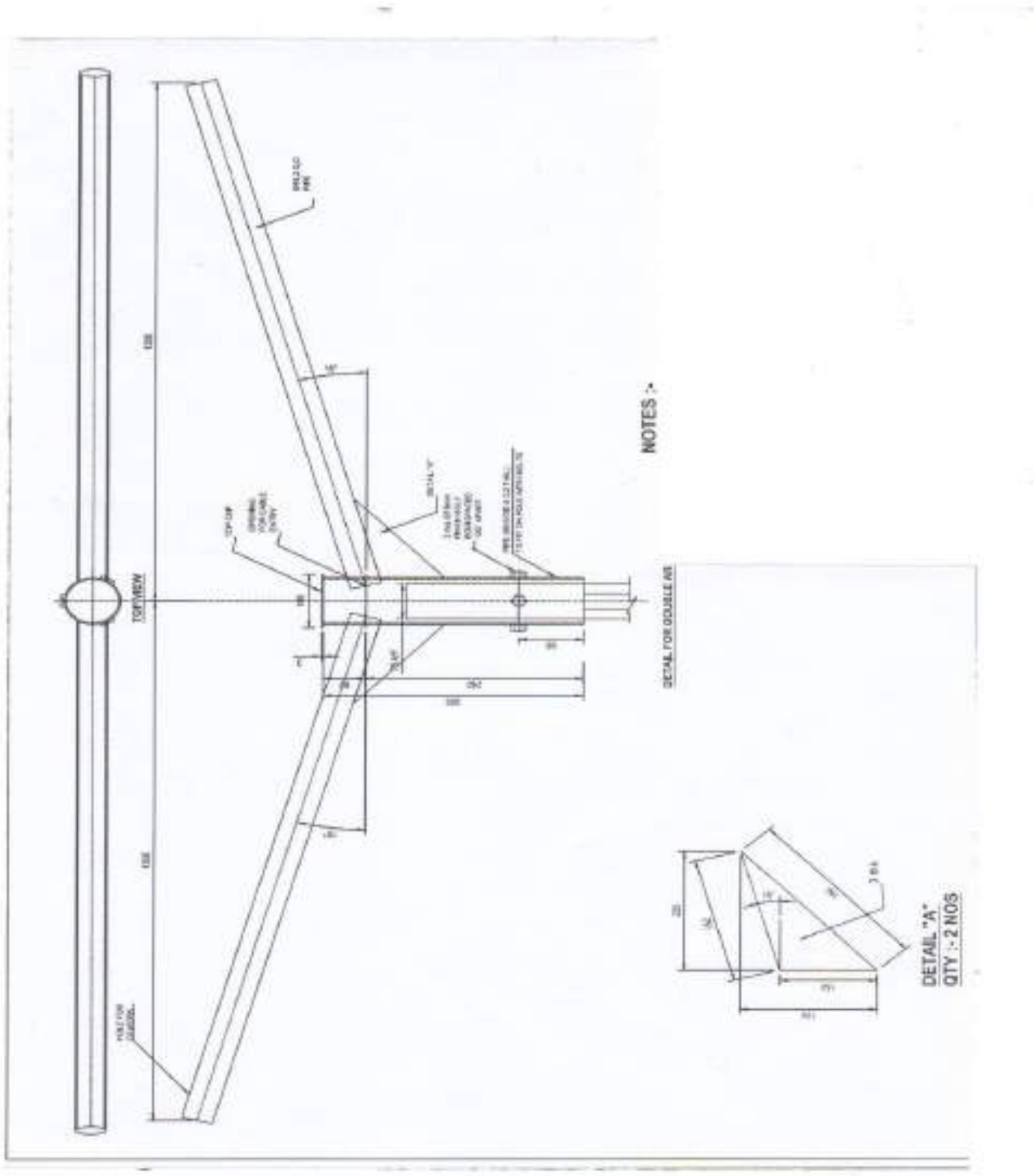




Detailed Drawing of G.I. Single arm bracket for octagonal Street Light pole of various height

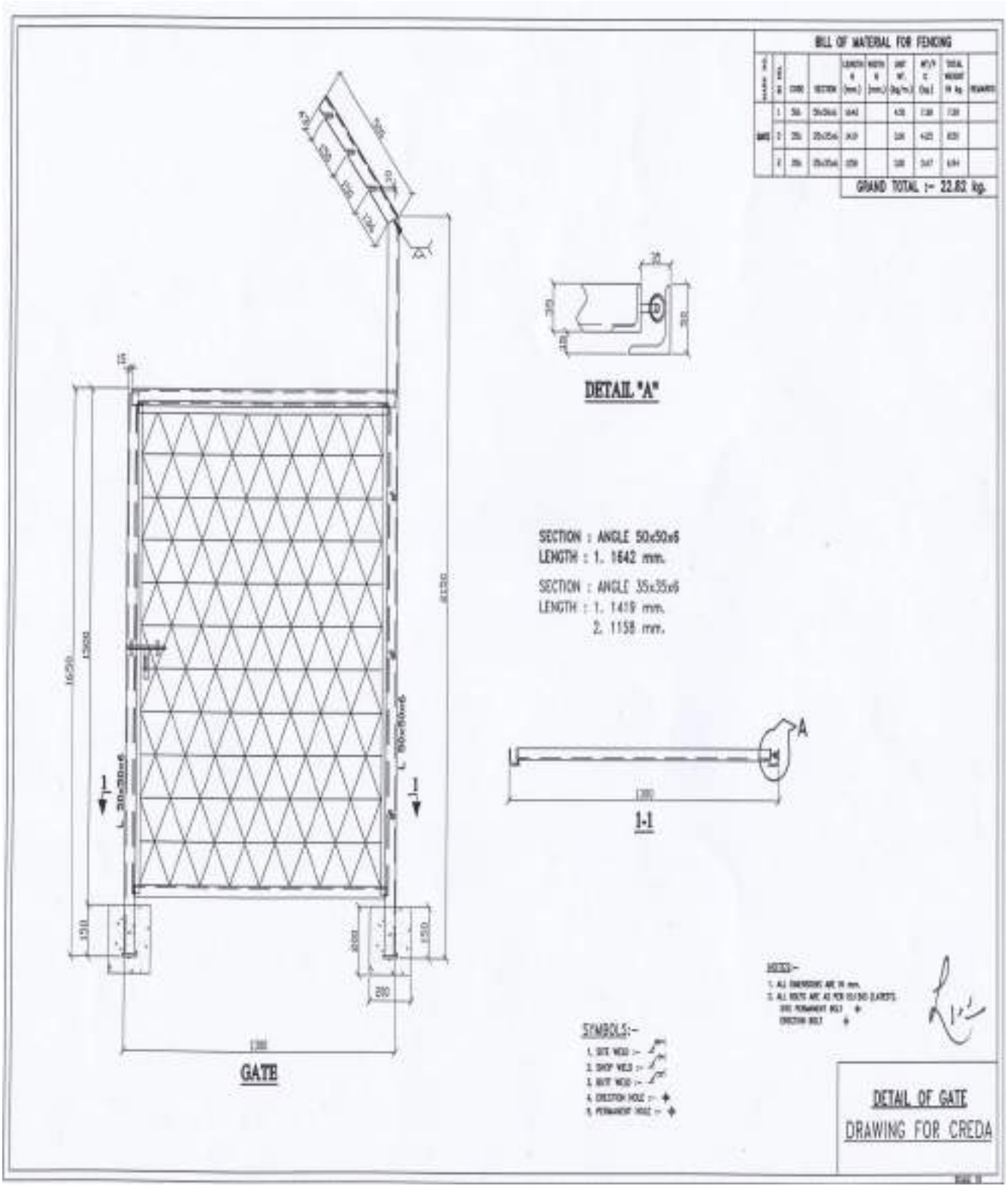


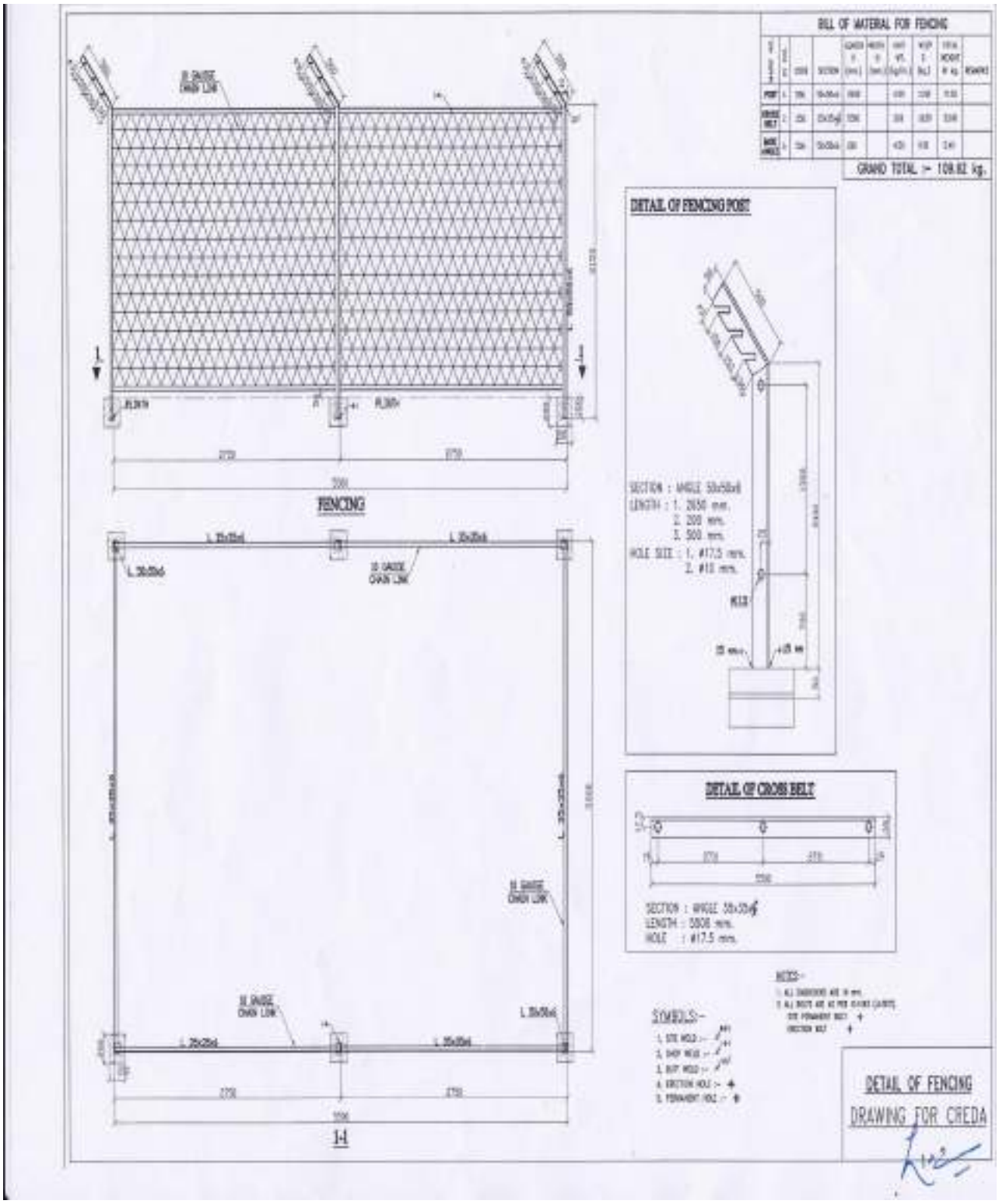
Detailed Drawing of G.I. Double arm bracket for octagonal Street Light pole of various height



6.Detailed Drawing and Technical Specification of Chain Link Fencing

Fabrication, supply and installation of fencing of 10 gauge chain link wire mesh of 75X75 mm opening, fitted with 50X50X6 mm vertical M.S. Angle at spacing of 2.5 mtr& 35X35X5 mm horizontal M.S. Support. Every set of fencing will have one M.S. Angle framed gate with same chain link wire mesh with locking arrangement and two extra posts. Three lane barbed bolts, washer and clit as per enclosed design drawing and specification with two coat steel primer zinc chromate and one coat silver/aluminium paint of standard brand with installation and fitting of fencing with grouting the poles in 1:2:4 P.C.C. of size 0.45X0.45X0.60 mtr. for given requirement with complete civil material.




BILL OF MATERIAL FOR FENCING
GRAND TOTAL :- 109.82 kg.
DETAIL OF FENCING POST
SECTION : ANGLE 50x50x6
LENGTH : 1. 2650 mm.
2. 200 mm.
3. 500 mm.
HOLE SIZE : 1. ø17.5 mm.
2. ø10 mm.
DETAIL OF CROSS BELT
SECTION : ANGLE 50x50x6
LENGTH : 5800 mm.
HOLE : ø17.5 mm.
FENCING
SYMBOLS:-
NOTES:-
DETAIL OF FENCING
DRAWING FOR CREDA

Section-04

1.e-Price Bid: A-1- Supply of Electrical Items

For supply of ACDB, DCDB, AJB, MJB used in PDN works during various project and operation and maintenance of solar systems and project works

(bidding as per Specifications & Scope of Work of No. 203363/CREDA/ PDN WORKS/2026-27 Dated : 12-11-2026)

S. No.	Item code	Particulars	Unit	Rates (Exe. GST) In Rs
01	A 1.1	Supply of **ACDB** suitable for SPVPP (Cap 1 KWp to 3 KWp at 48 Volts DC), Output 230 Volts AC Single Phase with timer and suitable SPD according to MNRE/CREDA Guidelines as per specifications mentioned in drawing.	Nos	
02	A 1.2	Supply of ACDB suitable for SPVPP (Cap 4 KWp to 6KWp at 96 Volts DC) Output 230 Volts AC Single Phase with timer suitable SPD according to MNRE/CREDA Guidelines as per specifications mentioned in drawing.	Nos	
03	A 1.3	Supply of ACDB suitable for SPVPP (Cap 8 KWp to 10 KWp at 120 Volts DC) Output 230 Volts AC Single Phase with timer suitable SPD according to MNRE/CREDA Guidelines as per specifications mentioned in drawing.	Nos	
04	A 1.4	Supply of **DCDB** suitable for SPVPP (Cap 1 KWp to 3 KWp at 48 Volts DC) according to MNRE/CREDA Guidelines as per specifications mentioned in drawing".	Nos	
05	A 1.5	Supply of DCDB suitable for SPVPP (Cap 4 KWp to 6 KWp at 96 Volts DC) according to MNRE/CREDA Guidelines as per specifications mentioned in drawing.	Nos	
06	A 1.6	Supply of DCDB suitable for SPVPP (Cap 8 KWp to 10 KWp at 120 Volts DC) according to MNRE/CREDA Guidelines as per specifications mentioned in drawing.	Nos	
07	A 1.7	Supply of Control Panel consisting all features, controls, metering, suitable SPD and Monitoring instruments required for ACDB & DCDB suitable for SPVPP (Cap upto 1 KWp at 24 Volts DC) Output 230 Volts AC Single Phase according to MNRE/CREDA Guidelines.	Nos	
08	A 1.8	Supply of Control Panel consisting all features, controls, metering, suitable SPD and Monitoring instruments required for ACDB & DCDB suitable for SPVPP (Cap 1 KWp to 3 KWp at 48 Volts DC) Output 230 Volts AC Single Phase according to MNRE/CREDA	Nos	
09	A 1.9	Supply of Control Panel consisting all features, controls, metering, suitable SPD and Monitoring instruments required for ACDB & DCDB suitable for SPVPP (Cap 4 KWp to 6 KWp at 96 Volts DC) Output 230 Volts AC Single Phase according to MNRE/CREDA Guidelines.	Nos	
10	A 1.10	Array junction Box 4 input 1 output with SPD	Nos	
11	A 1.11	Array junction Box 6 input 1 output with SPD	Nos	
12	A 1.12	Main junction Box 2 input 1 output with necessary protections	Nos	

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. 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)

Note:- Partial bidding shall be not allowed. Bidder shall have to quote rates for all items.

Signature of Bidder

Name _____

Seal _____

Signature_____

2.e-PRICE BID -A-2

Schedule of Rates for supply of cables of different sizes for project work and operation and maintenance of solar power plant

(Bidding as per Specifications & Scope of Work of No. 203363/CREDA/ PDN WORKS/2026-27 Dated: 12-11-2026)

S. No.	Item Code	Description of Item	Unit	Rate (Exe.GST)
1		**Supply of 1100 V grade, single-core, stranded annealed copper conductor, FRLS PVC insulated wires conforming to IS 694 and ISI marked, suitable for concealed/open conduit wiring**		
	A 2.1	(1) 1.0 Sq.mm	Meter	
	A 2.2	(2) 1.5 Sq.mm	Meter	
	A 2.3	(3) 2.5 Sq.mm	Meter	
	A 2.4	(4) 4 Sq.mm	Meter	
	A 2.5	(5) 6 Sq.mm	Meter	
	A 2.6	(6) 10 Sq.mm	Meter	
	A 2.7	(7) 16 Sq.mm	Meter	
	A 2.8	(8) 25 Sq.mm	Meter	
	A 2.9	(9) 35 Sq.mm	Meter	
2	-	**Aluminium wire P.V.C. Insulated sheathed and single core cable for working voltage up to 1100 volts, IS 694/1990 size**		
	A 2.10	(i) 1/1.40 mm (1.5 sq.mm)	Meter	
	A 2.11	(ii) 1/1.78 mm (2.5 sq.mm)	Meter	
	A 2.12	(iii) 1/2.24 mm (4.0 sq. mm)	Meter	
	A 2.13	(iv) 1/2.76 mm (6.0 sq. mm)	Meter	
	A 2.14	(v) 1/3.57 mm (10.0 sq. mm)	Meter	
3	-	**Aluminium wire P.V.C. Insulated sheathed and twin core cable for working voltage up to 1100 volts, IS 694/1990 size**		
	A 2.15	(i) 1/1.40 mm (1.5 Sq.mm) Solid Conductor	Meter	
	A 2.16	(ii) 1/1.78 mm (2.5 Sq. mm) Solid Conductor	Meter	
	A 2.17	(iii) 1/2.24 mm (4 Sq. mm) Solid Conductor	Meter	
	A 2.18	(iv) 1/2.76 mm (6Sq. Mm) Solid Conductor	Meter	
	A 2.19	(v) 1/3.57 mm (10 Sq.mm) Solid Conductor	Meter	
	A 2.20	(vi) 7 / 1.70mm (16 Sq.mm) Standard Conductor)	Meter	
4	-	**ACSR wire for A.C. distribution as per IS 398 (Part 2) make**		
	A 2.21	(1) 10 Sq. mm	Meter	
	A 2.22	(2) 16 Sq. mm	Meter	
5	-	**Power cable - Unarmoured with Aluminium Conductor, XLPE insulated PVC Sheathed as per IS:7098(PART 1), part one two core**		
	A 2.23	(1) 1.5 Sq.mm	Meter	
	A 2.24	(2) 2.5 Sq.mm	Meter	
	A 2.25	(3) 4 Sq.mm	Meter	
	A 2.26	(4) 6 Sq.mm	Meter	
	A 2.27	(5) 10 Sq.mm	Meter	
	A 2.28	(6) 16 Sq.mm	Meter	
	A 2.29	(7) 25 Sq.mm	Meter	

6	-	**Power cable - Unarmoured with Aluminium Conductor XLPE insulated PVC Sheathed (Heavy Duty) as per IS:7098(PART 1), part one three core**		
	A 2.30	(1) 1.5 Sq.mm	Meter	
	A 2.31	(2) 2.5 Sq.mm	Meter	
	A 2.32	(3) 4 Sq.mm	Meter	
	A 2.33	(4) 6 Sq.mm	Meter	
	A 2.34	(5) 10 Sq.mm	Meter	
	A 2.35	(6) 16 Sq.mm	Meter	
	A 2.36	(7) 25 Sq.mm	Meter	
7	-	**Power cable - Unarmoured with Aluminium Conductor XLPE insulated PVC Sheathed (Heavy Duty) as per IS:7098(PART 1), part one four core**		
	A 2.37	(1) 1.5 Sq.mm	Meter	
	A 2.38	(2) 2.5 Sq.mm	Meter	
	A 2.39	(3) 4 Sq.mm	Meter	
	A 2.40	(4) 6 Sq.mm	Meter	
	A 2.41	(5) 10 Sq.mm	Meter	
	A 2.42	(6) 16 Sq.mm	Meter	
	A 2.43	(7) 25 Sq.mm	Meter	
8	-	**Power cable - Armoured with Aluminium Conductor XLPE insulated PVC Sheathed (Heavy Duty) with GI wire/Strip Armouring as per IS:7098(PART 1), part one two core**		
	A 2.44	(1) 1.5 Sq.mm	Meter	
	A 2.45	(2) 2.5 Sq.mm	Meter	
	A 2.46	(3) 4 Sq.mm	Meter	
	A 2.47	(4) 6 Sq.mm	Meter	
	A 2.48	(5) 10 Sq.mm	Meter	
	A 2.49	(6) 16 Sq.mm	Meter	
	A 2.50	(7) 25 Sq.mm	Meter	
9	-	**Power cable - Armoured with Aluminium Conductor XLPE insulated PVC Sheathed (Heavy Duty) with GI wire/Strip Armouring as per IS:7098(PART 1), part one three core**		
	A 2.51	(1) 1.5 Sq.mm	Meter	
	A 2.52	(2) 2.5 Sq.mm	Meter	
	A 2.53	(3) 4 Sq.mm	Meter	
	A 2.54	(4) 6 Sq.mm	Meter	
	A 2.55	(5) 10 Sq.mm	Meter	
	A 2.56	(6) 16 Sq.mm	Meter	
	A 2.57	(7) 25 Sq.mm	Meter	
10	-	**Power cable - Armoured with Aluminium Conductor XLPE insulated PVC Sheathed (Heavy Duty) with GI wire/Strip Armouring as per IS:7098(PART 1), part one four core**		
	A 2.58	(1) 1.5 Sq.mm	Meter	
	A 2.59	(2) 2.5 Sq.mm	Meter	
	A 2.60	(3) 4 Sq.mm	Meter	
	A 2.61	(4) 6 Sq.mm	Meter	
	A 2.62	(5) 10 Sq.mm	Meter	
	A 2.63	(6) 16 Sq.mm	Meter	
	A 2.64	(7) 25 Sq.mm	Meter	

11	-	**Power cable - Unarmoured with Copper Conductor XLPE insulated PVC Sheathed (Heavy Duty) as per IS:7098(PART 1), two core**		
	A 2.65	(1) 1.5 Sq.mm	Meter	
	A 2.66	(2) 2.5 Sq.mm	Meter	
	A 2.67	(3) 4 Sq.mm	Meter	
	A 2.68	(4) 6 Sq.mm	Meter	
	A 2.69	(5) 10 Sq.mm	Meter	
	A 2.70	(6) 16 Sq.mm	Meter	
	A 2.71	(7) 25 Sq.mm	Meter	
12	-	**Power cable - Unarmoured with Copper Conductor XLPE insulated PVC Sheathed (Heavy Duty) as per IS:7098(PART 1), three core**		
	A 2.72	(1) 1.5 Sq.mm	Meter	
	A 2.73	(2) 2.5 Sq.mm	Meter	
	A 2.74	(3) 4 Sq.mm	Meter	
	A 2.75	(4) 6 Sq.mm	Meter	
	A 2.76	(5) 10 Sq.mm	Meter	
	A 2.77	(6) 16 Sq.mm	Meter	
	A 2.78	(7) 25 Sq.mm	Meter	
13	-	**Power cable - Unarmoured with Copper Conductor XLPE insulated PVC Sheathed (Heavy Duty) as per IS:7098(PART 1), four core**		
	A 2.79	(1) 1.5 Sq.mm	Meter	
	A 2.80	(2) 2.5 Sq.mm	Meter	
	A 2.81	(3) 4 Sq.mm	Meter	
	A 2.82	(4) 6 Sq.mm	Meter	
	A 2.83	(5) 10 Sq.mm	Meter	
	A 2.84	(6) 16 Sq.mm	Meter	
	A 2.85	(7) 25 Sq.mm	Meter	
14	-	**Power cable - Armoured with Copper Conductor XLPE insulated PVC Sheathed (Heavy Duty) with GI wire/Strip Armouring as per IS:7098(PART 1), two core**		
	A 2.86	(1) 1.5 Sq.mm	Meter	
	A 2.87	(2) 2.5 Sq.mm	Meter	
	A 2.88	(3) 4 Sq.mm	Meter	
	A 2.89	(4) 6 Sq.mm	Meter	
	A 2.90	(5) 10 Sq.mm	Meter	
	A 2.91	(6) 16 Sq.mm	Meter	
	A 2.92	(7) 25 Sq.mm	Meter	
15	-	**Power cable - Armoured with Copper Conductor XLPE insulated PVC Sheathed (Heavy Duty) with GI wire/Strip Armouring as per IS:7098(PART 1),three core**		
	A 2.93	(1) 1.5 Sq.mm	Meter	
	A 2.94	(2) 2.5 Sq.mm	Meter	
	A 2.95	(3) 4 Sq.mm	Meter	
	A 2.96	(4) 6 Sq.mm	Meter	
	A 2.97	(5) 10 Sq.mm	Meter	
	A 2.98	(6) 16 Sq.mm	Meter	
	A 2.99	(7) 25 Sq.mm	Meter	

16	-	**Power cable - Armoured with Copper Conductor XLPE insulated PVC Sheathed (Heavy Duty) with GI wire/Strip Armouring as per IS:7098(PART 1), four core**		
	A 2.100	(1) 1.5 Sq.mm	Meter	
	A 2.101	(2) 2.5 Sq.mm	Meter	
	A 2.102	(3) 4 Sq.mm	Meter	
	A 2.103	(4) 6 Sq.mm	Meter	
	A 2.104	(5) 10 Sq.mm	Meter	
	A 2.105	(6) 16 Sq.mm	Meter	
	A 2.106	(7) 25 Sq.mm	Meter	

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. 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)

Note:- Partial bidding shall be not allowed. Bidder shall have to quote rates for all items.

Signature of Bidder
Name _____
Seal _____
Signature_____

3.e-Price Bid A-3

SCHEDULE OF RATES FOR SUPPLY OF ELECTRICAL & ELECTRONIC ITEMS, LUMINARIES, FIXTURES, HARDWARE & ACCESSORIES REQUIRED FOR AC/DC FOR SPV POWER PLANT PROJECT AND O&M WORK ANYWHERE IN THE STATE OF CHHATTISGARH

(e-bidding as per Specifications & Scope of Work of No. 203363/CREDA/ PDN WORKS/2026-27 Dated : 12-11-2026)

S. No.	Item code	Description of Item	Unit	Rate (Exe. GST)
1	-	LED Street lighting Luminaire ,0.90<PF, IP65 & 66 protection, External voltage surge protection, copper Earth wire conductor 2 feet, Separate Heat Sink, Separate driver compartment (>30Watt Luminaries) Make Havells, HPL, Phillips or equivalent		
	A 3.1	9W	Per piece	
	A 3.2	15W	Per piece	
	A 3.3	18W	Per piece	
	A 3.4	25W	Per piece	
	A 3.5	30W	Per piece	
	A 3.6	40W	Per piece	
	A 3.7	60W	Per piece	
	A 3.8	85W	Per piece	
	A 3.9	90W	Per piece	
	A 3.10	110W	Per piece	
2	-	Distribution Box with provision for MCB & HRC Fuse of IS: 13032 (with Neutral Link, Single Phase)		
	A 3.11	(1) Two ways suitable for 2 x 16Amp at 240V	Per piece	
	A 3.12	(2) Three ways suitable for 4 x 16Amp at 240V	Per piece	
	A 3.13	(3) Four ways suitable for 4 x 16Amp at 240V	Per piece	
	A 3.14	(4) Two ways suitable for 4 x 63Amp at 240V	Per piece	
	A 3.15	(5) Three ways suitable for 4 x 63Amp at 240V	Per piece	
	A 3.16	(6) Four ways suitable for 4 x 63Amp at 240V	Per piece	
3	-	**DC MCB of IS 8828 - 1996 make, Single Pole of Capacity (With out enclosure)**		
	A 3.17	(1) 2.5 Amp	Per piece	
	A 3.18	(2) 6Amp	Per piece	
	A 3.19	(3) 10Amp	Per piece	
	A 3.20	(4) 16Amp	Per piece	
	A 3.21	(5) 20Amp	Per piece	
	A 3.22	(6) 25Amp	Per piece	
	A 3.23	(7) 32Amp	Per piece	
	A 3.24	(8) 63Amp	Per piece	
	A 3.25	(9) 100 Amp	Per piece	
4	-	**DC MCB of IS 8828 - 1996 make, Double Pole of Capacity (With out enclosure)**		
	A 3.26	(1) 2.5 Amp	Per piece	
	A 3.27	(2) 6Amp	Per piece	
	A 3.28	(3) 10Amp	Per piece	
	A 3.29	(4) 16Amp	Per piece	
	A 3.30	(5) 20Amp	Per piece	
	A 3.31	(6) 25Amp	Per piece	
	A 3.32	(7) 32Amp	Per piece	
	A 3.33	(8) 63Amp	Per piece	
	A 3.34	(9) 100 Amp	Per piece	
	-	**A. C. MCB, IS 8828 -1996, Single Pole (without enclosure)**		

5	A 3.35	(i) 1 A	Per piece	
	A 3.36	(i) 2.5 A	Per piece	
	A 3.37	(ii) 6 A	Per piece	
	A 3.38	(iii) 10 A	Per piece	
	A 3.39	(iv) 16 A	Per piece	
	A 3.40	(v) 20 A	Per piece	
	A 3.41	(vi) 25 A	Per piece	
	A 3.42	(vii) 32 A	Per piece	
	A 3.43	(viii) 63 A	Per piece	
	A 3.44	(ix) 100 A	Per piece	
6	-	**Change over switch, 230Volt, Make- Havells, HPL or equivalent.**		
	A 3.45	(1) 16Amp	Per piece	
	A 3.46	(2) 40Amp	Per piece	
	A 3.47	(3) 60Amp	Per piece	
7	-	**Change over switch Double Pole, 230Volt, Make- Havells, HPL or equivalent.**		
	A 3.48	(1) 16Amp	Per piece	
	A 3.49	(2) 40Amp	Per piece	
	A 3.50	(3) 60Amp	Per piece	
8	A 3.51	Change Over Switch 63 Amp. 4 pole ISI make	Per piece	
9	-	**M.C.B. Enclosure Steel sheet powder coated suitable for**		
	A 3.52	(i) 02 Nos. MCB.	Per piece	
	A 3.53	(ii) 03 Nos. MCB.	Per piece	
	A 3.54	(iii) 04 Nos. MCB.	Per piece	
	A 3.55	(iv) 08 Nos. MCB.	Per piece	
	A 3.56	(v) 12 Nos. MCB.	Per piece	
10	-	**M.C.B. Enclosure of Plastic body, suitable for**		
	A 3.57	(i) 02 Nos. MCB (SP).	Per piece	
	A 3.58	(ii) 03 Nos. MCB(SP).	Per piece	
	A 3.59	(iii) 04 Nos. MCB(SP).	Per piece	
	A 3.60	(iv) 08 Nos. MCB(SP).	Per piece	
	A 3.61	(v) 12 Nos. MCB(SP).	Per piece	
11	-	**HRC Fuse of ISI make**		
	A 3.62	(i) 6 Amp	Per piece	
	A 3.63	(ii) 10Amp	Per piece	
	A 3.64	(iii) 16 Amp	Per piece	
	A 3.65	(iv) 20 Amp	Per piece	
	A 3.66	(v) 32 Amp	Per piece	
	A 3.67	(vi) 50 Amp	Per piece	
	A 3.68	(vii) 63 Amp	Per piece	
	A 3.69	(viii) 100 Amp	Per piece	
12	A 3.70	H.R.C. Fuse holder 32 Amp.	Per piece	
13	A 3.71	H.R.C. Fuse holder 63 Amp.	Per piece	
14	-	**Junction box unbreakable thermo plastic. IP 65 protection, suitable for outdoor application, fire retardant up to 750°C chemical resistance suitable for given size and terminal of Hensel make**		
	A 3.72	(i) 88 x 88 x 53 – 2.5 Sq. mm with terminal	Per piece	
	A 3.73	(ii) 98 x 98 x 61 – 4 Sq. with terminal suitable for one in two out	Per piece	
	A 3.74	(iii) 167 x 125 x 82 with terminal 6/10 Sq.mm	Per piece	
	A 3.75	(iv) 200 x 160 x 98 with terminal five in one out of 16/25	Per piece	

15	A 3.76	M.S. Juction box Size 150mm x 200mm x100 mm. (18 Swg. Plate)	Per piece	
16	A 3.77	M.S. Juction box Size 250mm x 200mm x100 mm. (18 Swg. Plate)	Per piece	
17	-	**Electronic Energy Meter, ISI make, Single Phase, Operating Voltage 120-300V, 45-55Hz of following ratings:**		
	A 3.78	(1) 10-40A	per piece	
	A 3.79	(2) 10-60A	per piece	
18	-	**Electronic Energy Meter, ISI make, Three Phase, Operating Voltage 120-440V, 45-55Hz of following ratings:**		
	A 3.80	(1) 10-40A	per piece	
	A 3.81	(2) 10-60A	per piece	
19	-	**Single module multi function Energy Meter can measure volts, Amp, ,Kwh and Kw, ,**	per piece	
	A 3.82	20 Amp	per piece	
	A 3.83	30 Amp.	per piece	
20	A 3.84	Ceiling Rose 2 point, ISI make,	Per piece	
21	A 3.85	Switch 6A Flash Type ISI Make	Per piece	
22	A 3.86	(1) Socket 6 Amp, 3 pin. ISI make,	Per piece	
	A 3.87	(1) Socket 6 Amp, 5 pin. ISI make,	Per piece	
23	A 3.88	(1) PVC Cable clip (Kaju) Size 6mm	Per 100	
	A 3.89	(2) PVC Cable clip (Kaju) 12 mm	Per 100	
	A 3.90	(3) PVC Cable clip (Kaju) 20 mm	Per 100	
	A 3.91	(4) PVC Cable clip (Kaju) 25 mm	Per 100	
24	A 3.92	(1) PVC Elbow 20mm	Per piece	
	A 3.93	(2) PVC Elbow 25mm	Per piece	
25	A 3.94	(1) PVC Tee 20mm	Per piece	
	A 3.95	(2) PVC Tee 25mm	Per piece	
26	A 3.96	Power Plug 16 Amp. SS Combined with box	Per piece	
27	A 3.97	3 Pin top, 6 Amp., ISI make,	Per piece	
	A 3.98	3 Pin top, 16 Amp., ISI make,	Per piece	
28	-	**Connector-Bakelite**	Per piece	
	A 3.99	30 Amp, 500 V,2 way	Per piece	
	A 3.100	30 Amp, 500 V,5 way	Per piece	
	A 3.101	60 Amp, 500 V, 4 way Open type	Per piece	
	A 3.102	60 Amp, 500 V, 4 Close type	per piece	
29	-	**PVC Casing &Caping, ISI make,**		
	A 3.103	Size – (1) 20 mm.	Per mtr.	
	A 3.104	(2) 25 mm.	Per mtr.	
	A 3.105	(3) 32 mm	Per mtr.	
30	-	**P.V.C. Pipe, ISI, Concealed Medium type**		
	A 3.106	(1) 20 mm	Per mtr.	
	A 3.107	(2) 25 mm	Per mtr.	
31	-	**PVC Conduit Special Pipe – ISI make**		
	A 3.108	Size – (1) 20 mm	Per mtr.	
	A 3.109	(2) 25 mm	Per mtr.	
	A 3.110	(3) 32mm	Per mtr.	
32	-	**P.V.C. Junction Box, ISI Make,**		
	A 3.111	Size (1) 20 mm.	Per piece	
	A 3.112	(2) 25 mm.	Per piece	

33	-	**P.V.C., Bend ISI Make, long**		
	A 3.113	Size (1) 20 mm.	Per piece	
	A 3.114	(2) 25 mm.	Per piece	
34	-	**Board Sun mica, 6 mm thick teak wood**		
	A 3.115	Size: 300 mm x 450 mm x 50 mm	Per piece	
	A 3.116	Size: 200 mm x 150 mm x 50 mm	Per piece	
35	-	**Board PVC**		
	A 3.117	Size: 100 mm x 100 mm x 50 mm	Per piece	
	A 3.118	Size: 175 mm x 100 mm x 50 mm	Per piece	
	A 3.119	Size: 200 mm x 150 mm x 50 mm		
36	-	**Cycle Insulator Porcelain.**		
	A 3.120	Size: 62 mm x 50 mm	Per piece	
37	A 3.121	(1) P.V.C. Ring Insulator, Heavy duty Size: 12 mm x 12 mm with inner dia 10 mm weather proof (white).	Per 100 piece	
	A 3.122	(2) P.V.C. Ring Insulator, Heavy duty Size: 20 mm x 20 mm with inner dia 16 mm weather proof (white).	Per 100 piece	
	A 3.123	(3) P.V.C. Ring Insulator, Heavy duty Size: 26 mm x 26 mm with inner dia 22 mm weather proof (white).	Per 100 piece	
38	A 3.124	Rawl Grip. 10 no. (PVC)	Per 100 pieces	
39	-	**G.I. Wire**		
	A 3.125	(1) 8 no.	Per kg	
	A 3.126	(2) 10 no	Per kg	
	A 3.127	(3) 12 no.	Per kg	
	A 3.128	(4) 16 no.	Per kg	
	A 3.129	(5) 18 no.	Per kg	
40	-	**Service Pipe with G.I.Pipe 'B' Class, Length 10 feet**		
	A 3.130	Size : (1) 19 mm.	Per piece	
	A 3.131	(2) 25 mm.	Per piece	
41	-	**Service Pipe with G.I.Pipe 'B' Class, Length 7 feet**		
	A 3.132	Size : (1) 19 mm.	Per piece	
	A 3.133	(2) 25 mm.	Per piece	
42	-	**M.S. Clamp suitable for service pipe.**		
	A 3.134	(1) 19 mm.	Per piece	
	A 3.135	(2) 25 mm.	Per piece	
43	A 3.136	Bombay Nails Size : 38mm x 50 mm	Per kg	
44	A 3.137	TATA Nails Size: 38mm x 50 mm	Per kg	
45	-	**M.S. Nut Bolt with washer**		
	A 3.138	10 mm x 150 mm	Per piece	
46	-	**Screw natal fold**		
	A 3.139	(1) 35 mm x 8 no.	Per 100	
	A 3.140	(2) 75 mm x 10 no.	Per 100	
	A 3.141	(3) 100 mm x 10 no.	Per 100	
47	A 3.142	(1) Machine Screw 3/16 x 25 mm with nut and washer	Per piece	
	A 3.143	(2) Machine Screw 3/16 x 38 mm with nut and washer	Per piece	
48	-	**Steel Screw.**		
	A 3.144	13 mm x 6 no.	Per 100	
	A 3.145	19 mm x 6 no.	Per 100	

49	-	**P.V.C. Square Box.**		
	A 3.146	Size: 100 mm x 100 mm	Per piece	
50	-	P.V.C. Insulate Tape.		
	A 3.147	19 mm x 8 mts. ISI Make.	Per piece	
51	-	Copper Plate.		
	A 3.148	300 mm x 300 mm x 03 mm Approx. 3kg	Per piece	
52	A 3.149	Copper wire 10 no.	Per kg	
53	-	**Danger Plate of MS**		
	A 3.150	Size: 125 mm x 200 mm	Per piece	
54	-	**Copper Lugs, Ring /Pin Type, ISI suitable for**		
	A 3.151	(i) 04 mm Wire	Per piece	
	A 3.152	(ii) 06 mm Wire	Per piece	
	A 3.153	(iii) 10 mm Wire	Per piece	
	A 3.154	(iv) 16 mm Wire	Per piece	
	A 3.155	(v) 25 mm Wire	Per piece	
55	A 3.156	Wall Mounted Fan 400mm (Bajaj/ Havells/Crompton)	Per piece	
56	A 3.157	BLDC Ceiling Fan 1200mm (Bajaj/ Havells/Crompton) 5 Star	Per piece	
57	A 3.158	Exhaust Fan 300mm (Bajaj/ Havells/Crompton)	Per piece	
58	A 3.159	Exhaust Fan 225mm (Bajaj/ Havells/Crompton)	Per piece	
59	A 3.160	Fan Regulator Step Type 5 Step (Socket Type)	Per piece	
60	A 3.161	(1) Indoor AC LED Tube light 9 Watt/2 feet	Per piece	
	A 3.162	(2) Indoor AC LED Tube light 18Watt/4 feet	Per piece	
61	A 3.163	LED bulb 9 watt	Per piece	
62	-	**Surge Protecting Devices (SPD) as per ISI specification & IEC standards**		
	A 3.164	(i)20 KA	Per piece	
	A 3.165	(ii)40KA	Per piece	
	A 3.166	(iii)60KA	Per piece	
	A 3.167	(iv)100KA	Per piece	
	A 3.168	(v)150KA	Per piece	
	A 3.169	(vi)200KA	Per piece	
63	-	**SPD Enclosures suitable for above with standard material as per ISI specification & IEC standards**		
	A 3.170	(i)20 KA	Per piece	
	A 3.171	(ii)40KA	Per piece	
	A 3.172	(iii)60KA	Per piece	
	A 3.173	(iv)100KA	Per piece	
	A 3.174	(v)150KA	Per piece	
	A 3.175	(vi)200KA	Per piece	
64	-	**Battery bank Stand of FRP material as per ISI standards (Sintex or equivalent make) for**		
	A 3.176	01 KW/24V(Battery Config.:-12V/150AH,2 Nos)SPVPP	Per piece	
	A 3.178	01 KW/48V(Battery Config.:-12V/150AH,4 Nos) SPVPP	Per piece	
	A 3.179	02 KW/48V(Battery Config.:-02V/300AH,24 Nos) SPVPP	Per piece	
	A 3.180	03 KW/48V(Battery Config.:-02V/400AH,24 Nos) SPVPP	Per piece	
	A 3.181	04 KW/48V(Battery Config.:-02V/300AH,24 Nos) SPVPP	Per piece	
	A 3.182	05 KW/96V(Battery Config.:-02V/400AH,48 Nos) SPVPP	Per piece	
	A 3.183	06 KW/96V(Battery Config.:-02V/400AH,48 Nos) SPVPP	Per piece	
	A 3.184	08 KW/120V(Battery Config.:-02V/600AH,60 Nos) SPVPP	Per piece	

	A 3.185	10 KW/120V(Battery Config.:-02V/600AH,60 Nos) SPVPP	Per piece	
	A 3.186	50W/240V(Battery Config.:-02V/800AH,120 Nos) SPVPP	Per piece	
65	-	By pass Diode as per ISI standards for solar modules		
	A 3.187	6 Amp		
	A 3.188	10 Amp	Per piece	
	A 3.189	12 Amp	Per piece	
	A 3.190	15 Amp	Per piece	
	A 3.191	20 Amp	Per piece	
66	A 3.192	MC4 connector of capacity 20 Amp as per ISI standards	Per piece	
67	A 3.193	Multistrand Copper cored Tinned DC cable for panel interconnection size 4 Sq mm	Mtr	
68	A 3.194	Battery Connector made up of copper as per ISI standards suitable for all type of batteries	Per piece	
69	-	Supply of Lightening Protection System as per the IS/IEC 62305-PART 3:2010.with all accessories such as connection terminal, Air terminal, round conductor,Insulator,Tape Etc.		
	A 3.195	Radius of protection 8 mtr with all accessories	Per piece	
	A 3.196	Radius of protection 10 mtr with all accessories	Per piece	
	A 3.197	Radius of protection 12 mtr with all accessories	Per piece	
	A 3.198	Radius of protection 16 mtr with all accessories	Per piece	
	A 3.199	Radius of protection 18 mtr with all accessories	Per piece	
	A 3.200	Radius of protection 20 mtr with all accessories	Per piece	
70	-	Cable tie, black, UV and weather-resistant, Polyamide material: -		
	A 3.201	2.5x100 SWUV	Per piece	
	A 3.202	2.5x150 SWUV	Per piece	
	A 3.203	2.5x200 SWUV	Per piece	
	A 3.204	3.6x100 SWUV	Per piece	
	A 3.205	3.6x150 SWUV	Per piece	
	A 3.206	3.6x200 SWUV	Per piece	
	A 3.207	3.6x250 SWUV	Per piece	
	A 3.208	3.6x290 SWUV	Per piece	
	A 3.209	3.6x365 SWUV	Per piece	
71		Stainless steel cable tie made from AISI 304 Grade/316, Self-locking ball cock type, minimum thickness 0.25mm, suitable for outdoor solar application, UV, Corrosion resistant		
	A 3.210	300 mmx4.6mm SS 304 Cable Ties	Per piece	
	A 3.211	400 mmx7.9mm SS 304 Cable Ties	Per piece	
	A 3.212	520 mmx7.9mm SS 304 Cable Ties	Per piece	
72	A 3.213	Supply of Digital Timer with inbuilt contactor (up to 3Kw SPVPP) with 10 time zone setting as per ISI standards	Per piece	
73	A 3.214	Supply of Digital Timer with inbuilt contactor (4KWp TO 10 Kwp SPVPP) with 10 time zone setting as per ISI standards setting	Per piece	
74	A 3.215	MPPT DC Charge controller of capacity 24V/20 Amps of reputate make for solar high mast systems.	Nos.	
75	A 3.216	LED Flood Light 20 Watt DC/24V Conforming to IP66 as per specification	Nos.	
76	A 3.217	LED Flood Light 30 Watt DC/24V Conforming to IP66 as per specification	Nos.	

77	A 3.218	LED Flood Light 40 Watt DC/24V Conforming to IP66 as per specification	Nos.	
78	A 3.219	LED Flood Light 20 Watt DC/12V Conforming to IP66 as per specification with **inbuilt charge controller**	Nos.	
79	A 3.220	LED Flood Light 30 Watt DC/12V Conforming to IP66 as per specification **with inbuilt charge controller**	Nos.	
80	A 3.221	LED Flood Light 40 Watt DC/12V Conforming to IP66 as per specification with **inbuilt charge controller**	Nos.	
81	A 3.222	MPPT DC Charge controller of capacity 12V-24V/20 Amps as per specification	Nos.	
82	A 3.223	MPPT DC Charge controller of capacity 12V-24V/10 Amps as per specification	Nos.	
83	A 3.224	LED Light (Batten) of capacity 8W/12V as per specification (Minimum lumens 800)	Nos.	
84	A 3.225	BLDC FAN of capacity 15Watt/12V as per specification	Nos.	
85	A 3.226	DC table /pedestal fan 20Wattt/12V as per specification	Nos.	
86	A 3.227	30-Watt socket for solar home light system	Nos.	
87	A 3.228	Enclosure/Box (IP25) for placement of battery, charge controller unit with provision of charging port, outport port for LED, FAN, TV, Luminaries, mobile charging with indicators as per specification.	Nos.	
88	A 3.229	7 Watt DC LED Bulb	Nos	
		8-Watt DC LED Bulb	Nos	
		5-Watt DC LED Bulb	Nos	

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. 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)

Note: - Partial bidding shall be not allowed. Bidder shall have to quote rates for all items.

Signature of Bidder

Name _____

Seal _____

4.e-Price Bid: B

Supply of various fabrication items used in new project work and other operation and maintenance work/New Project Work

S. No.	Item code	Description of Item	Unit	Rate (In Rs.) Exe. GST
1	-	Supply of hot dipped galvanized (in single dip to average 80 micron) Octagonal pole made of 3mm thick steel plate having bases plate 200x200x12mm, Window and flush cover with hacking arrangement at height from base for cable termination block, pole suitably reinforced with welded steel section at window cut section to make the strength of pole unaffected, with 4 nos. 450 mm long, 16mm dia hot dipped GI foundation bolts (EN8 grade)		
1.1	B 1.1	3 Meter height Approx Min Weight 27 kg bare pole	**Nos**	
1.2	B 1.2	4 Meter height Approx Min Weight 35 kg bare pole	**Nos**	
1.3	B 1.3	5 Meter height Approx Min Weight 42 kg bare pole	**Nos**	
2	-	Supply of hot dipped galvanized (in single dip to average 80 micron) Octagonal pole made of 3mm thick steel plate having bases plate 200x200x12mm, Window and flush cover with hacking arrangement at height from base for cable termination block, pole suitably reinforced with welded steel section at window cut section to make the strength of pole unaffected, with 4 nos. 600 mm long, 20mm dia hot dipped GI foundation bolts (EN8 grade)		
2.1	B 1.4	6 Meter height Approx Min Weight 50 kg bare pole	**Nos**	
2.2	B 1.5	7 Meter height Approx Min Weight 57 kg bare pole	**Nos**	
3	-	Supply of hot dipped galvanized (in single dip to average 80 micron) Octagonal pole made of 3mm thick steel plate having bases plate 200x200x16mm, Window and flush cover with hacking arrangement at height from base for cable termination block, pole suitably reinforced with welded steel section at window cut section to make the strength of pole unaffected, with 4 nos. 600 mm long, 20mm dia hot dipped GI foundation bolts (EN8 grade)		
3.1	B 1.6	9 Meter height Approx Min Weight 84 kg bare pole	**Nos**	
4	-	Supply of hot dipped galvanized (in single dip to average 80 micron) Octagonal pole made of 3mm thick steel plate having bases plate 250x250x16mm, Window and flush cover with hacking arrangement at height from base for cable termination block, pole suitably reinforced with welded steel section at window cut section to make the strength of pole unaffected, with 4 nos. 750 mm long, 24mm dia hot dipped GI foundation bolts (EN8 grade)		
4.1	B 1.7	10 Meter height Approx Min Weight 101 kg bare pole	**Nos**	
5	-	Supply of hot dipped galvanized (in single dip to average 80 micron) Octagonal pole made of 3mm thick steel plate having bases plate 275x275x16mm, Window and flush cover with hacking arrangement at height from base for cable termination block, pole suitably reinforced with welded steel section at window cut section to make the strength of pole unaffected, with 4 nos. 750 mm long, 24mm dia hot dipped GI foundation bolts (		

		EN8 grade)		
5.1	B 1.8	11 Meter height Approx Min Weight 133 kg bare pole	**Nos**	
5.2	B 1.9	12 Meter height Approx Min Weight 160 kg bare pole	**Nos**	
6	-	Fabrication and supply of M.S. Pole, with ISI "B" Class M.S. Pipe as per drawing and specification enclosed with all material and with two coat Zink Chromate primer and tow coat Silver/Aluminium Paint of standard brand 12" x 12" base plate (10 thickness) foundation in MS Pole with stiffener and 4 Nos. T-bolt with double nuts (20 mm. Dia & 900 mm. Length. Nut bolt arrangement in 4 feet from the bottom of pole.		
6.1	B 1.10	5.7 Meter Height Approx Min weight 40-42 kg bare pole	**Nos**	
6.2	B 1.11	7.5 Meter Height Approx Min Weight 80-82 kg bare pole	**Nos**	
7	-	Fabrication & Supply of ISI mark G.I .pipe poles made of "B" class making necessary hole for cable entry and providing earthing stud(Welded at specified height) as per specifications and drawing		
7.1	B 1.12	5.7 Meter Height Approx Min weight 45-48 kg bare pole	**Nos**	
7.2	B 1.13	7.5 Meter Height Approx Min weight 62-65 kg bare pole	**Nos**	
8	B 1.14	Fabrication and supply of ISI mark G.I. **special type pedestrian pole** as per drawing with 25 watt street light luminary warm LED (4.5 Mtr height) with PU painting as per CREDA requirement, Approx Min Weight -35-38kg including bracket	**Nos**	
9	B 1.15	Fabrication and supply of ISI mark G.I. pedestrian pole as per drawing with street light bracket with PU painting as per CREDA requirement (6 Mtr height),approx Min Weight 45-48 kg including bracket	**Nos**	
10	B 1.16	Fabrication and supply of ISI mark G.I. street light pole as per drawing with street light bracket (9 Mtr height) with PU painting ,Approx min weight -86-89kg including bracket	**Nos**	
11	B 1.17	Fabrication and supply of ISI mark G.I. cable fixtures Type A, hot dipped galvanized Min Weight:-4.5Kg	Nos	
12	B 1.18	Fabrication and supply of ISI mark G.I. cable fixtures Type B, hot dipped galvanized Min Weight:-3.0Kg	Nos	
13	B 1.19	Fabrication and Supply of ISI mark G.I .pipe "B" Class arrangement(850 mm length and 50 mm dia) for underground cabling in pole near foundation with suitable G.I. clamp for holding ISI mark G.I. pipe "B" Class	Nos.	
14	B 1.20	Fabrication & Supply of G.I. stay sets as per specifications and drawing	Nos.	
15	B 1.21	Fabrication & supply of ISI mark G.I. pipe "B" Class street light bracket for mounting Street Light fiitings as per specifications and drawing. Approx Min weight 2.75-3.5kg	Nos.	
16	B 1.22	Fabrication & supply of ISI mark hot dipped G.I. **Single arm** street light bracket (Size OD 48.3x3.20 MM Thick, Length 1.5Mtr Centre to top with 15' inclination from horizontal plane) for mounting Street Light fittings in **octagonal pole** of various height as per specifications and drawing. Pipe Material IS:2062 (Min Approx weight 08 kg bare)	Nos.	
17	B 1.23	Fabrication & supply of ISI mark hot dipped G.I. **Double arm** street light bracket (Size OD 48.3x3.20 MM Thick, Length 1.5Mtr Centre to top with 15' inclination from horizontal plane) for mounting Street Light fittings in **octagonal pole** of various height as per specifications and drawing. Pipe Material IS:1161,YST:210Mpa (Min Approx 13 kg bare)	Nos.	

18	B 1.24	Fabrication & supply of ISI mark G.I .pipe "B" Class Wall Mount Brackets as per specifications and drawing	Nos.	
19	B 1.25	Fabrication and supply of hot dipped galvanised structure for mounting of solar modules or any other structure as per specification, size and design given with all required material, drilling work and two coat steel primer zinc chromates of standard quality	Per Kg	
20	B 1.26	Fabrication and supply of fencing of 10-gauge chain link wire mesh of 75X75 mm opening, fitted with 50X50X5 mm vertical M.S. Angle at spacing of 2.5 mtr & 3 5X35X5 mm horizontal M.S. Support. Every set of fencing will have one M.S. Angle framed gate with same chain link wire mesh with locking arrangement and two extra posts. Three lane barbed bolts, washer and clit as per enclosed design drawing and specification with two coat steel primer zinc chromate silver/aluminium paint of standard brand with installation and fitting of fencing with grouting the poles in 1:2:4 P.C.C. of size 0.45X0.45X0.60 mtr. for given requirement with complete civil material	Per running meter (RMT)	
21	B 1.27	Fabrication & supply of Earthing coil made from 8 mm hot dip galvanized G.I. wire with 105 turns of 50 mm inner Dia and tail length 1.8 meter.	Nos	
22	B 1.28	Fabrication & supply of chemical earthing set having copper coated rod, chamber and PVC/Fibre lid, quantity of chemical- 5 kg, rod length min. 1220 mm.	Nos	
23	B 1.29	Fabrication and supply of module mounting poles. Hot dipped galvanised (Min 80 Micron) for mounting of solar modules as per specification for solar home light system	Nos	

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. 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)

Note:- Partial bidding shall be not allowed. Bidder shall have to quote rates for all items.

Signature of Bidder
Name _____
Seal _____
Signature_____

5.e-Price Bid: C-
Installation of various fabrication items/electrical items used in project PDN works and O&M PDN civil works

S. No.	Item code	Description of Item	Unit	Rate (In Rs.) Exe. GST	GST as applicable
1	C 1.1	Installation of fencing of 10-gauge chain link wire mesh of 75X75 mm opening, fitted with 50X50X5 mm vertical M.S. Angle at spacing of 2.5 mtr & 35X35X5 mm horizontal M.S. Support. Installation and fitting of fencing with grouting the poles in 1:2:4 P.C.C. of size 0.45X0.45X0.60 mtr. for given requirement with complete civil material.	per running mtr (RMT)		
2	-	Installation & Grouting of Hot dipped galvanized Octagonal Pole of various size as per drawing provided in the tender with all civil work			
2.1	C 1.2	3 Meter Height	Nos		
2.2	C 1.3	4 Meter Height	Nos		
2.3	C 1.4	5 Meter Height	Nos		
2.4	C 1.5	6 Meter Height	Nos		
2.5	C 1.6	7 Meter Height	Nos		
2.6	C 1.7	8 Meter Height	Nos		
2.7	C 1.8	9 Meter Height	Nos		
2.8	C 1.9	10 Meter Height	Nos		
2.9	C 1.10	11 Meter Height	Nos		
2.10	C 1.11	12 Meter Height	Nos		
3	C 1.12	Grouting work of MS pole with civil material as per drawing (size 1.5 x 1.5 x 3.0 ft.). in 1:3:6 concrete mix. (5.7-meter Pole)	Nos		
4	C 1.13	Grouting work of MS pole with civil material as per drawing (size 1.5 x 1.5 x 3.0 ft.). in 1:3:6 concrete mix. (7.5-meter Pole)	Nos		
5	C 1.14	Installation &Grouting of ISI mark G.I. pipe poles with civil material as per specifications and drawing (size 1.5 x 1.5 x 3.0 ft.). in 1:3:6 concrete mix.(Height of poles - 5.7 meter)	Nos		
6	C 1.15	Installation &Grouting of ISI mark G.I. pipe poles with civil material as per specifications and drawing (size 1.5 x 1.5 x 3.0 ft.). in 1:3:6 concrete mix.(Height of poles - 7.5 meter)	Nos		
7	C 1.16	Installation and grouting of ISI mark G.I. decorative pole and fitting of two sided G.I. Street light bracket (8 Mtr) as per drawing	Nos		
8	C 1.17	Installation and grouting of ISI mark G.I. decorative pole and fitting of one side G.I. street light bracket (5.75 Mtr) as per drawing	Nos		
9	C 1.18	Installation and grouting of ISI mark G.I. special type pedestrian pole (4.5 Mtr) as per drawing	Nos		

10	C 1.19	Installation and grouting of ISI marks G.I. pedestrian pole (6 Mtr) as per drawing	Nos		
11	C 1.20	Installation and grouting of ISI marks G.I. pedestrian pole (9 Mtr) as per drawing	Nos		
12	C 1.21	Fixing of ISI mark G.I. cable fixtures Type A	Nos		
13	C 1.22	Fixing of ISI mark G.I. cable fixtures Type B	Nos		
14	C 1.23	Fixing of stay set and grouting of stay rod with civil material in 1:3:6 concrete mix (size 1.5 x 1.5 x 3.0 ft.).	Nos		
15	C 1.24	Fixing & grounding of pipe earthing coil	Nos		
16	C 1.25	Fixing of ISI mark Street Light Brackets of any type as per specifications and drawing.	Nos.		
17	C 1.26	Fixing of ISI mark G.I. pipe "B" Class Wall Mount Brackets as per specifications and drawing	Nos.		
18	C 1.27	Pole to pole Underground cabling	Per mtr		
19	C 1.28	Pole to house underground cabling	Per mtr		
20	C 1.29	Pole to pole Overhead cabling	Per mtr		
21	C 1.30	Pole to house overhead cabling	Per mtr		
22	C 1.31	In house wiring with fixing and fitting of all connection point	per point (PPNT)		
23	C 1.32	Installation of 20Watt fan as per ISI specification.	Nos		
24	C 1.33	Installation /fitting of LED lamp/tube light as per specification	Nos		
25	C 1.34	Fixing and installation/fitting of Compact Street lighting weather proof Luminary with LED Lamp with suitable wires as per specification.	Nos		
26	C 1.35	Grouting work of module mounting structure as per drawing (size 1.5 x 1.5 x 2.5 ft.) in 1:3:6 concrete mix including civil material required for the grouting of four legs of each frame structure.	Each frame		
27	C 1.36	Grouting work of module mounting structure as per drawing (size 1.5 x 1.5 x 2.5 ft.) in 1:3:6 concrete mix including civil material required for the grouting of two legs of each frame structure.	Each Frame		
28	C 1.37	Reorganization of Pole including shifting, Construction of Pedestals/ welding of base plate etc. and reinstallation and grouting	Per pole		
29	-	**Painting Work and Wall writing**			
29.1	C 1.38	Pole Painting Work, Single coating of Primmer and double coating of Oil Paint. including cleaning and rubbing with emric paper	Per pole		
29.2	C 1.39	Painting of fencing with 02 coat of primer and 02 coat of zinc chromate including cleaning and rubbing with emirc paper	Per running SqMtr (p.sq.mtr)		
29.3	C 1.40	Wall writing in the control room	Per Sq feet (PERSQF)		

29.4	C 1.41	Control Room Painting Work, Interior wall with Distemper and external wall with Distemper.	Per Running Sq Meter (p.sq.mtr)		
29.5	C 1.42	Control Room Painting Work, Interior wall with Distemper and external wall with Snow sem paint.	Per Running Sq Meter (p.sq.mtr)		
30	C 1.43	Dismantling & reinstallation and commissioning of SPVPP including Installation of MMS, Installation of Modules, AJB, MJB, Control Panel, PCU, BOS, Earthing Kit, Lightening Arrester and other equipments and their interconnections and synchronizing, welding of MMS for safety of Modules, all civil works required for foundation and grouting of various components such as MMS, PCU, Batteries, Control Equipments etc and including testing and commissioning of SPVPP.	Per KW SPVPP (PER KW)		
31	C 1.44	Installation of chemical earthing set including preparation of 30 mm x 150 mm deep pit having copper coated rod, chamber and PVC/Fibre lid.	NO		
32	-	**Supply of Lightening Protection System as per the IS/IEC 62305-PART 3:2010.with all accessories such as connection terminal, Air terminal, Round conductor, Insulator, Tape Etc**			
	C 1.45	Radius of protection 8 mtr with all accessories	Per piece		
	C 1.46	Radius of protection 10 mtr with all accessories	Per piece		
	C 1.47	Radius of protection 12 mtr with all accessories	Per piece		
	C 1.48	Radius of protection 16 mtr with all accessories	Per piece		
	C 1.49	Radius of protection 18 mtr with all accessories	Per piece		
	C 1.50	Radius of protection 20 mtr with all accessories	Per piece		
33	C 1.51	Installation of module mounting poles. Hot dipped galvanised (Min 80 Micron) for mounting of solar modules as per specification for solar home light system	Per Piece		

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. 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)

Note:- Partial bidding shall be not allowed. Bidder shall have to quote rates for all items.

Signature of Bidder

Name _____

Seal _____

Signature_____

6. ANNEXURE - 01
DRAFT AGREEMENT

CONTRACT AGREEMENT BETWEEN Chief Engineer Chhattisgarh State Renewable Energy Development Agency (**CREDA**) Raipur AND **M/s……** Represented by **…….....** THIS CONTRACT AGREEMENT against Bid No. 203363/CREDA/PDN WORKS/2026-27 Dated: 12-11-2026 (also referred to as "Service Contract") is made on the XXth day of _____2026.

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 **""Rate contract tender for standardization of rates for supply, installation and commissioning of various power distribution work(PDN) such as fabrication of poles, brackets, cable fixture, fencing etc and supply of electrical materials along with their installation for various solar projects and operation and maintenance works, in CREDA anywhere in the state of Chhattisgarh "from registered PDN contractor/Vendor of Electrical and Electronics items & fabrication items of CREDA**".

Wide Bid No. 203363/CREDA/ PDN WORK/2026-27 Dated: 12-11-2026 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 Bid 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 **""Rate contract tender for standardization of rates for supply, installation and commissioning of various power distribution work(PDN) such as fabrication of poles, brackets, cable fixture, fencing etc and supply of electrical materials along with their installation for various solar projects and operation and maintenance works, in CREDA anywhere in the state of Chhattisgarh"** as described in Bid documents. (Annexed to the agreement).

2) The NIT (Notice Inviting Bid), 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 items/works and Annexures therein, engineering documents, detailed specifications of BOS , so far they relate to the Bid No. 203363/CREDA/PDN WORKS/2026-27 Dated : 12-11-2026 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 Bid 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 commissioning. Such inspection will not relieve the eligible bidder 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 bidder, 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 on Civil 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 BIDDER'S DEFAULT LIABILITY**

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

(a) If in the opinion of the CREDA, the eligible bidder fails to complete the supply/work within the time specified in the supply/work Order or within the period for which extension has been granted by CREDA to the eligible bidder.

(b) If in the opinion of CREDA, the eligible bidder 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 bidder or agency upon such terms and in such a manner as it may deem appropriate and the eligible bidder shall be liable to CREDA for any additional costs or any losses caused to CREDA as may be required for the supply of items and or for penalty as defined under this Bid 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 bidder shall continue performance of the contract, in which case he shall be liable to CREDA for penalty for delay as set out in this Bid document until the work is completed.

8) **FORCE MAJEURE -**

The eligible bidder 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 of any accessories of items etc. by the related vendors, to whom the Bidder 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 bidder 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 bidder 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 Bid/ Activity of CREDA **for a period up to three (3) years**. The eligible bidder on receipt of such notices shall rectify or replace the defective material and rectify the work free of cost. If the eligible bidder 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 bidder plus **15%** service charges of the cost

of such rectification, from the eligible bidder 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 bidder 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 installation is delayed due to any reason beyond the control of the eligible bidder, the eligible bidder 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/completion date of the items/works as may be reasonable but without prejudice to other terms and conditions of the contract.

11) PENALTY FOR DELAY IN COMPLETION OF CONTRACT -

A. 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 Contractor/SI as penalty of **half (0.5) percent per week** or up to **Two percent (2%) per month** of the system price excluding GST for every delayed system. For this purpose, the date of taking over shall be reckoned as the date of completion. The total penalty shall not exceed **5% (Five Percent)** of the cost. The eligible SI shall not be liable for any penalty for delay or for failure to perform the contract for reasons of FORCE MAJEURE. Additionally, CREDA reserves the right to **black list or debarred such System integrator to participate in the any Bid/ Activity of CREDA for a period up to three (3) years** due to delay in work.

B. Review of the progress of supply of the electrical items allocated to bidders shall be done time to time by CREDA and if the progress of supply of electrical items is found unsatisfactory, the allocation of entire remaining supply or their part of can be re-allocated to other bidders as per discretion of CREDA.

12) PENALTY DUE FROM THE ELIGIBLE BIDDER-

All costs of damages and delays for which the eligible bidder is liable to the CREDA will be deducted from any money due to the eligible bidder 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 the items/works by CREDA, if any, the ultimate responsibility for satisfactory performance of the entrusted work shall rest with the eligible bidder. If in any case the eligible bidder does not complete the work as per the Work Orders issued to them then CREDA may take over the task & complete the project at the risk and cost of eligible bidder.

14) RESPONSIBILITY TO RECTIFY THE LOSS AND DAMAGE -

If any loss or damage occurs to the work or any part thereof or materials/plant/equipment's for incorporation therein the period for which the eligible bidder is responsible for the cause thereof or from any cause whatsoever, the eligible bidder 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 bidder 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 OUT SIDERS -

- The eligible bidder 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.

- The eligible bidder 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 bidders. The eligible bidder shall also be responsible for any claims of the workers including PF, Gratuity, ESI & other legal obligations.
- Bidder shall have to submit JCCs within **60 days** after supply of items in District Office of CREDA.

16) Contractor shall provide 02 years warranty in supplied items and 02 years warranty in works from the date of supply as per the terms & conditions prescribed in the Bid No. 203363/CREDA/ PDN WORKS/2026-27 Dated : 12-11-2026**.**

17) **DECLARATION OF CONFLICT OF INTEREST –**

a. Any regular employee working or worked on basis of contract or through placement agency cannot work directly or indirectly in any scheme of CREDA. If such a person is found working with any vendor or through sublet then, such vendor shall be blacklisted **for a period up to three (3) years**.

b. The bidder shall not be permitted to Bid for this Tender, if any relative of bidder is employee of CREDA working as regular employee or work on the basis of contract or through placement agency.
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.

C. Bidder must produce an affidavit (Annexure-03) 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.

18) The contractor shall arrange insurance coverage for the materials and Items/works at his/ for the supply under execution and successful commissioning and subsequent handover to the CREDA. 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.

19) Bidder shall arrange for insurance coverage for Items during warranty. Insurance should cover for damage and theft. In case of such incidence, bidder must replace the lost/damaged part within 7 days.

19) The bidder shall abide by the terms and conditions, rules, guidelines, construction practices, safety precautions etc. stipulated in the Bid document including any correspondence between the bidder and the **CREDA** having bearing on execution of supply/works and payments of supply/works to be done under the contract.

20) The Bidder 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 High Court of Chhattisgarh.

I/We hereby state that we have provided information of our near relatives as stated in the affidavit attached at "Annexure – 03".

"Herewith everything and anything contained in Bid no. 203363/CREDA/ PDN WORKS/2026-27 Dated: 12-11-2026 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: **R. S. Bhakuni**
Designation: **Chief Engineer**

Witness:

1. Name:-……..
Address:-……
.....

2. Name:……
Address:- ……....
……..

7.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 Bidder 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 Chhattisgarh State: : Yes/No

a) If yes, write registration No. :
b) Whether documentary evidence Regarding registration enclosed :
c) Items for registration :
d) Period of registration :
d) Whether latest copy Competency/ Certificate furnished : Yes/No

06. Whether the firm is 100% owned by

a) State Government : Yes/No
b) Central Government : Yes/No
If yes, Notification/certificate issued from The competent authority to this effect is Enclosed : Yes/No

07. a) Whether the bidder is old participant with CREDA : Yes/No

b)If yes, whether documentary Evidence is enclosed. : Yes/No

08. Any other information that bidder may like to give in order to highlight his bid : If yes, give details

PLACE :

DATE :

SIGNATURE OF BIDDER

NAME IN FULL

DESIGNATION/STATUS

FIRM/COMPANY SEAL

8.SCHEDULE - II

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 Bidder : Yes/No

06. **COMPLETION PERIOD OF WORK**:
Whether Bidder is agreeing for completion period of work as Specified in the Bid : 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 BIDDER

DATE:

NAME IN FULL

DESIGNATION/STATUS

FIRM/COMPANY SEAL

9.SCHEDULE - III

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 from other State Nodal Agency or from other Organization for supply of inverters (if yes, give details) enclosed. : Yes/No

03. Whether pamphlets/technical details literatures along with drawing etc. furnished with the offer : Yes/No (if yes, give details)

04. Whether the Bidder agrees to furnish material test certificates in respect of chemical composition and physical properties from Govt./ Govt. approved lab with each batch of supplies. : Yes/No

05. Whether the Bidder has furnished details of manufacturing equipments and short history of plant :Yes/No (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

DATE

SIGNATURE OF BIDDER

NAME IN FULL

DESIGNATION/STATUS

FIRM/COMPANY

SEAL

10. SCHEDULE - IV

TECHNICAL DEVIATIONS

From,
Bidder Name & Address -

To,
The CE,
CREDA, HO,
Raipur

Sub – Technical Deviations.

Dear Sir,

The technical deviations & variations to the specifications stipulated in the Bid, for the item quoted are as under –

S.No	Condition and deviation	Clause no of Bid document	Page no of Bid document	Statement of Variation

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 Bid.

PLACE
DATE

SIGNATURE OF BIDDER
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.

11.SCHEDULE - V

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 -

Sl.No.	Purchaser's Name & Address	Order No. Date	Ordered Quantity	Qty. supplied (Nos.)	Value of Order

PLACE

DATE

SIGNATURE OF BIDDER

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.

12.ANNEXURE – 02

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

Ref. No…….....……. Date……....……..

CERTIFICATE OF SUPPLY AND PDN WORKS

This is to certify that **Name of Bidder, Address of Registered Office** has successfully completed the supply/works of **…….....**Items/works against various Sanction of Name of Agency at various locations in…….....……State, as per following details –

Details of Works/Supply	Year	Total Value of work (In Rs.)	Remarks
Total -			

The workmanship and performance of the above Items/work are found satisfactory and are in successful operation.

Seal & Sign
(Authorised Signatory)

13.ANNEXURE – 03

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 notice inviting bid number 203363/CREDA/PDN WORKS/2026-27 DT. 12-11-2026 issued by Chhattisgarh State Renewable Energy Development Agency (CREDA) (authority inviting bids) for supply of various electrical materials (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 31(A), 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)

…….

……..……..

1. 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.
2. 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 or my knowledge and believe and are based on my/our record.

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

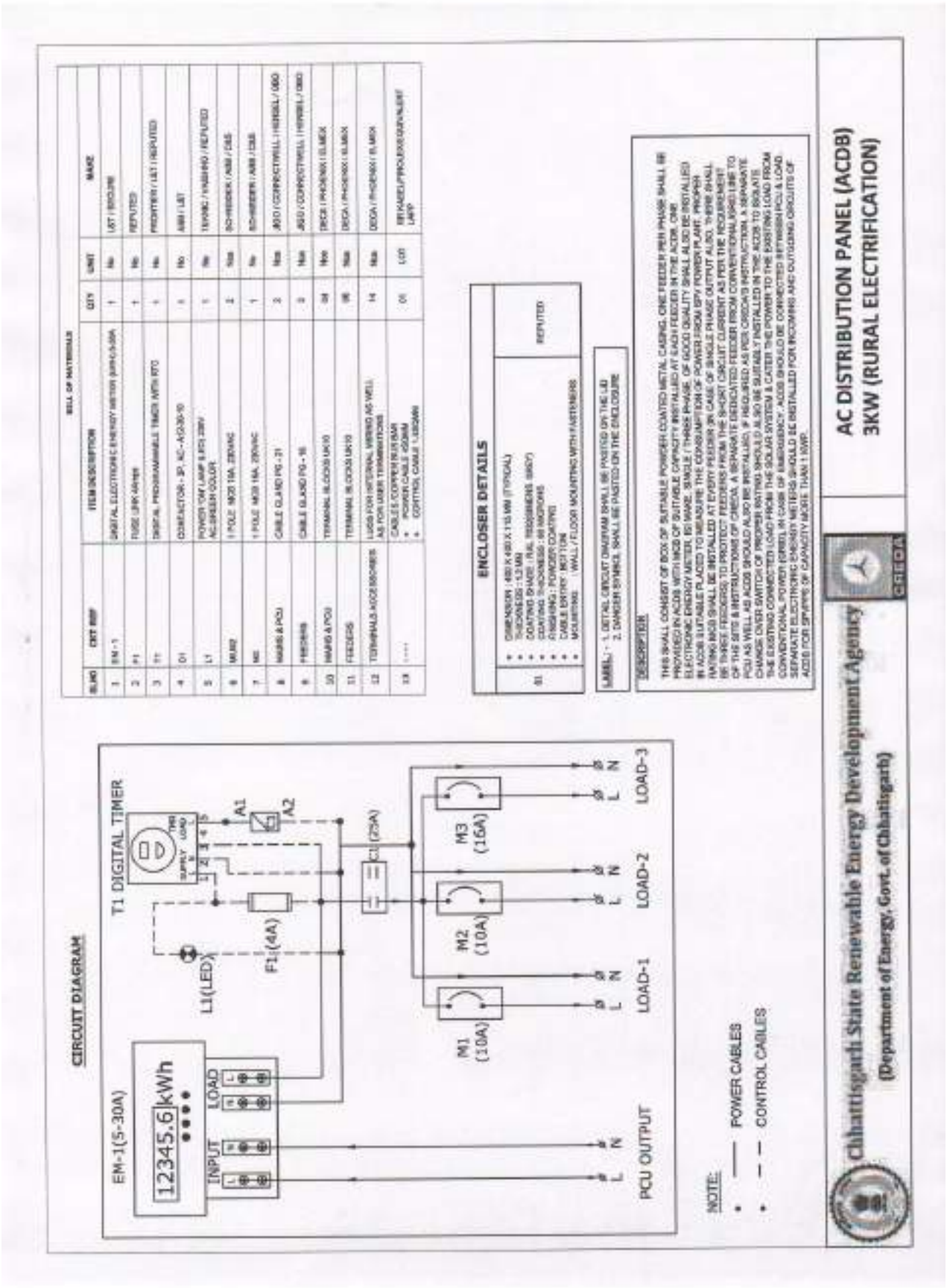
Deponent

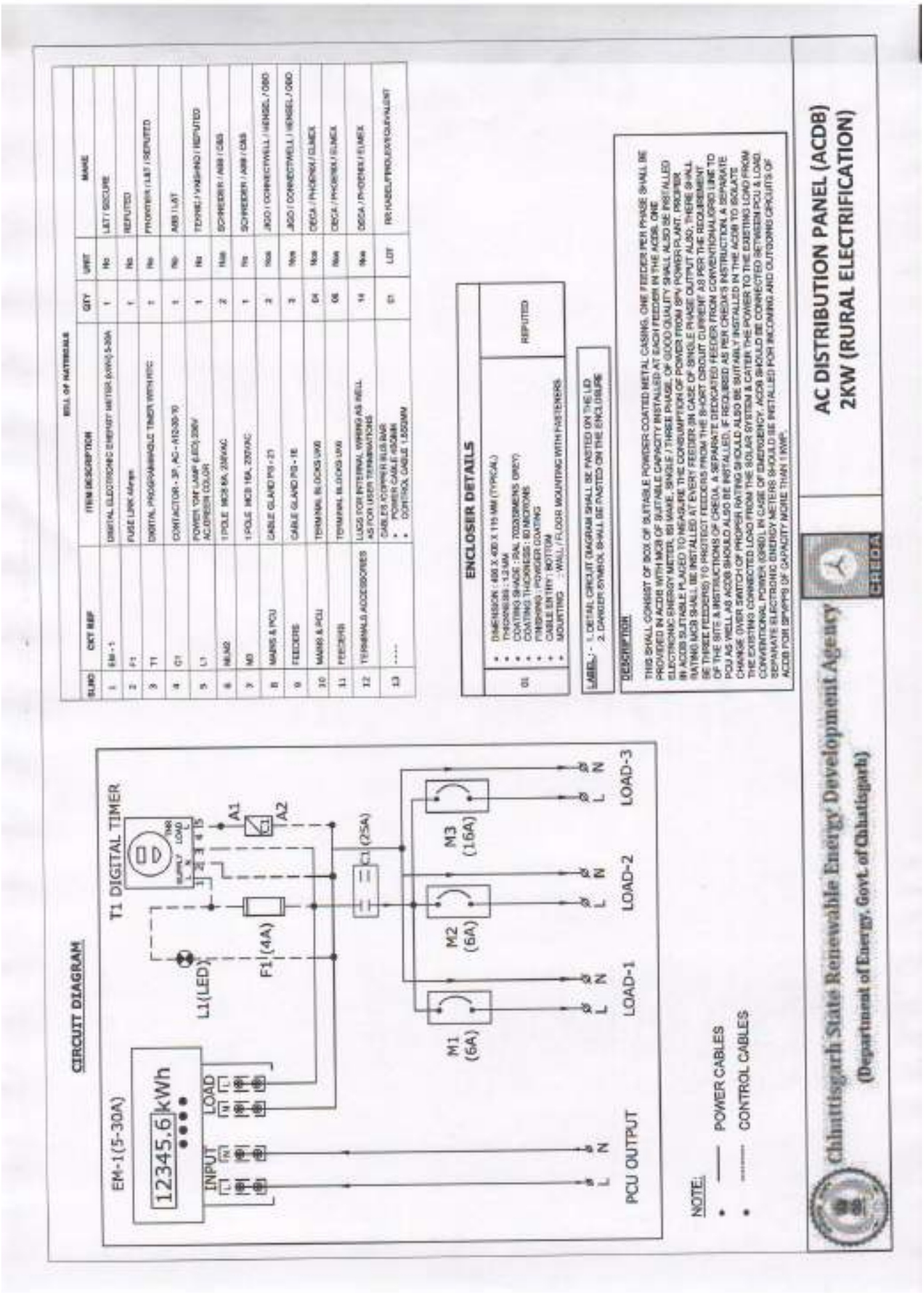
14. ANNEXURE – 04

MAF DETAIL SHEET FOR MAJOR COMPONENT

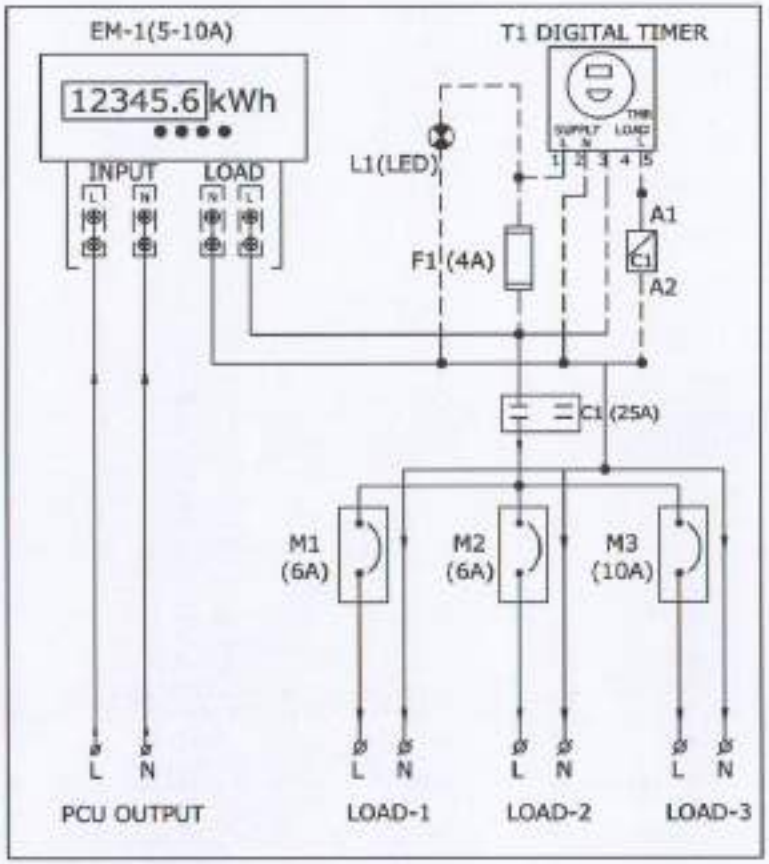
SN	Items Details	MAF No. and Date	Name of Company/ Manufacturer providing MAF
1	**ACDB/DCDB/AJB/MJB/CONTROL PANEL**		
2	**CABLE ARMOURED / UNARMOURED/ COPPER/ALUMINIUM/MULTISTAND**		
3	**OTHER ELECTRICAL BOS ITEMS SUCH AS DISTRIBUTION BOX, MCB, CHANGE OVER, HRC, JUNCTION BOX, ENERGY METER SPD, LIGHTENING ARRESTOR, EARTHING ETC**		
4	**LED STREET LIGHT LUMINARIES**		
5	**DIGITAL TIMER**		
6	**LED FLOOD LIGHT**		
7	**DC CAHRGE CONTROLLER**		
8	**BLDC FAN**		
9	**OCTAGONAL POLE**		
10	**MS POLE ISI B CLASS**		
11	**ISI MARK GI PIPE POLE**		
12	**SPECIAL TYPE PADESTRIAN POLES**		
13	**CABLE FIXTURE, STREET LIGHT BRACKET**		
14	**OTHER ITESM AS APPLICABLE**		

Section-5
Drawing of ACDB,DCDB,AJB,MJB


AC DISTRIBUTION PANEL (ACDB)
3KW (RURAL ELECTRIFICATION)
Chhattisgarh State Renewable Energy Development Agency
(Department of Energy, Govt. of Chhattisgarh)
CREDA
CIRCUIT DIAGRAM
EM-1(5-30A)
12345.6 kWh
INPUT
LOAD
T1 DIGITAL TIMER
L1(LED)
F1(4A)
A1
A2
C1 (20A)
M1 (10A)
M2 (10A)
M3 (16A)
PCU OUTPUT
LOAD-1
LOAD-2
LOAD-3
NOTE:
POWER CABLES
CONTROL CABLES
BILL OF MATERIALS
ENCLOSER DETAILS
DESCRIPTION


AC DISTRIBUTION PANEL (ACDB)
2KW (RURAL ELECTRIFICATION)
Chhattisgarh State Renewable Energy Development Agency
(Department of Energy, Govt. of Chhattisgarh)
CREDA
BILL OF MATERIALS
SLNO
DET REF
ITEM DESCRIPTION
QTY
UNIT
MAKE
ENCLOSER DETAILS
DESCRIPTION
CIRCUIT DIAGRAM
EM-1(5-30A)
12345.6 kWh
T1 DIGITAL TIMER
L1(LED)
F1 (4A)
C1 (25A)
M1 (6A)
M2 (6A)
M3 (16A)
LOAD-1
LOAD-2
LOAD-3
PCU OUTPUT
NOTE:
POWER CABLES
CONTROL CABLES

CIRCUIT DIAGRAM



NOTE:

- POWER CABLES
- CONTROL CABLES

BILL OF MATERIALS

SL.NO	CKT REF	ITEM DESCRIPTION	QTY	UNIT	MAKE
1	EM-1	DIGITAL ELECTRONIC ENERGY METER (kWh) 5-10A	1	No.	L&T / SECURE
2	F1	FUSE LINK 4Amps	1	No.	REPUTED
3	T1	DIGITAL PROGRAMMABLE TIMER WITH RTC	1	No.	FRONTIER / L&T / REPUTED
4	C1	CONTACTOR - 3P, AC - A12-30-10	1	No.	ABB / L&T
5	L1	POWER 'ON' LAMP (LED) 230V AC,GREEN COLOR	1	No.	TEKNIC / WASHNO / REPUTED
6	MUM2	1 POLE MCB 6A, 230VAC	2	Nos.	SCHNEIDER / ABB / C&S
7	M3	1 POLE MCB 10A, 230VAC	1	No.	SCHNEIDER / ABB / C&S
8	MAINS & PCU	CABLE GLAND PG - 21	2	Nos.	JIGO / CONNECTWELL / HENSEL / OBO
9	FEEDERS	CABLE GLAND PG - 16	3	Nos.	JIGO / CONNECTWELL / HENSEL / OBO
10	MAINS & PCU	TERMINAL BLOCKS UK6	04	Nos.	DEGA / PHOENIX / ELMEX
11	FEEDERS	TERMINAL BLOCKS UK6	06	Nos.	DEGA / PHOENIX / ELMEX
12	TERMINALS ACCESSORIES	LUGS FOR INTERNAL WIRING AS WELL AS FOR USER TERMINATIONS	14	Nos.	DEGA / PHOENIX / ELMEX
13	----	CABLES /COPPER BUS BAR • POWER CABLE 4SQMM • CONTROL CABLE 1.5SQMM	01	LOT	RR KABEL/FINOLEX/EQUIVALENT

ENCLOSER DETAILS

01	• DIMENSION : 400 X 400 X 115 MM (TYPICAL) • THICKNESS : 1.2 MM • COATING SHADE : RAL 7032(SIMENS GREY) • COATING THICKNESS : 60 MICRONS • FINISHING : POWDER COATING • CABLE ENTRY : BOTTOM • MOUNTING : WALL / FLOOR MOUNTING WITH FASTENERS	REPUTED

LABEL :- 1. DETAIL CIRCUIT DIAGRAM SHALL BE PASTED ON THE LID
2. DANGER SYMBOL SHALL BE PASTED ON THE ENCLOSURE

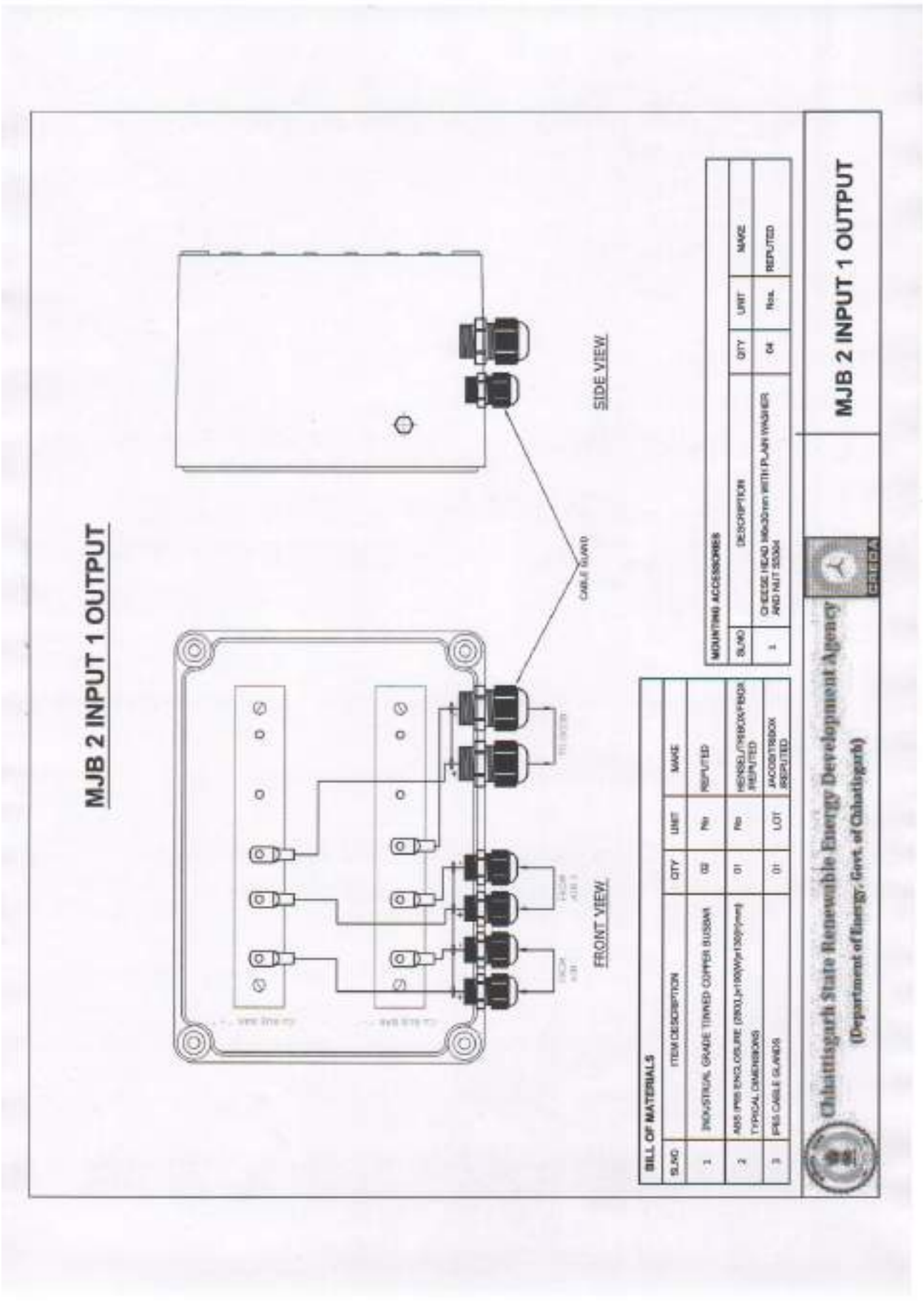
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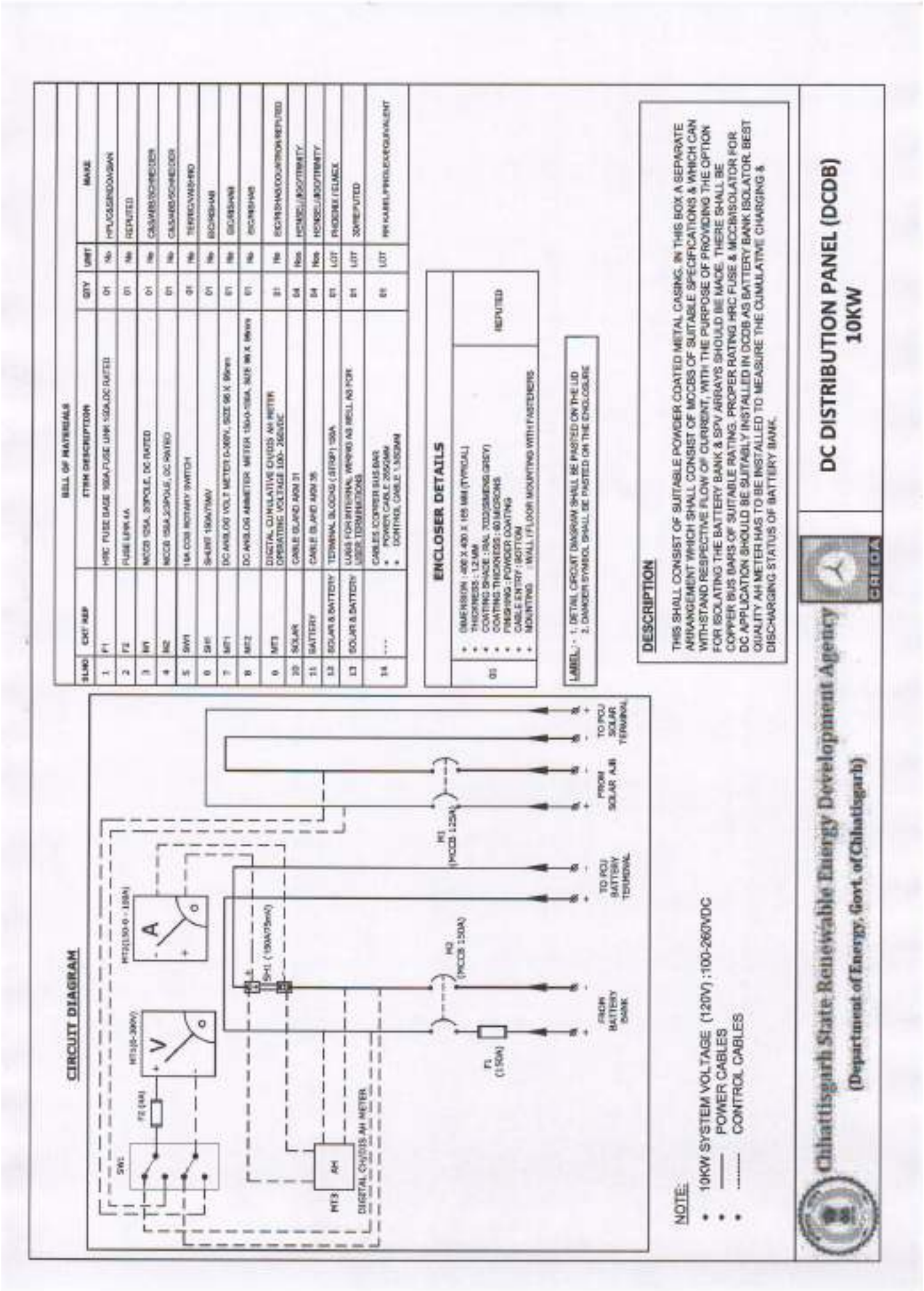
THIS SHALL CONSIST OF BOX OF SUITABLE POWDER COATED METAL CASING. ONE FEEDER PER PHASE SHALL BE PROVIDED IN ACDB WITH MCB OF SUITABLE CAPACITY INSTALLED AT EACH FEEDER IN THE ACDB. ONE ELECTRONIC ENERGY METER, ISI MARK, SINGLE / THREE PHASE, OF GOOD QUALITY SHALL ALSO BE INSTALLED IN ACDB SUITABLE PLACED TO MEASURE THE CONSUMPTION OF POWER FROM SPV POWER PLANT. PROPER RATING MCB SHALL BE INSTALLED AT EVERY FEEDER (IN CASE OF SINGLE PHASE OUTPUT ALSO, THERE SHALL BE THREE FEEDERS) TO PROTECT FEEDERS FROM THE SHORT CIRCUIT CURRENT AS PER THE REQUIREMENT OF THE SITE & INSTRUCTIONS OF CREDA. A SEPARATE DEDICATED FEEDER FROM CONVENTIONAL/GRID LINE TO PCU AS WELL AS ACDB SHOULD ALSO BE INSTALLED, IF REQUIRED AS PER CREDA'S INSTRUCTION. A SEPARATE CHANGE OVER SWITCH OF PROPER RATING SHOULD ALSO BE SUITABLY INSTALLED IN THE ACDB TO ISOLATE THE EXISTING CONNECTED LOAD FROM THE SOLAR SYSTEM & CATER THE POWER TO THE EXISTING LOAD FROM CONVENTIONAL POWER (GRID), IN CASE OF EMERGENCY. ACDB SHOULD BE CONNECTED BETWEEN PCU & LOAD. SEPARATE ELECTRONIC ENERGY METERS SHOULD BE INSTALLED FOR INCOMING AND OUTGOING CIRCUITS OF ACDB FOR SPV/PPS OF CAPACITY MORE THAN 1 KWP.

Chhattisgarh State Renewable Energy Development Agency
(Department of Energy, Govt. of Chhatisgarh)

CREDA

AC DISTRIBUTION PANEL (ACDB) 1KW (RURAL ELECTRIFICATION)


MJB 2 INPUT 1 OUTPUT
SIDE VIEW
CABLE GLAND
FRONT VIEW
MOUNTING ACCESSORIES
SLNO
DESCRIPTION
QTY
UNIT
MAKE
1
CHEESE HEAD M6x30mm WITH PLAIN WASHER AND NUT SS304
04
Nos.
REPUTED
BILL OF MATERIALS
SLNO
ITEM DESCRIPTION
QTY
UNIT
MAKE
1
INDUSTRIAL GRADE TINNED COPPER BUSBAR
02
No
REPUTED
2
ABS IP65 ENCLOSURE (280(L)x190(W)x130(H)mm) TYPICAL DIMENSIONS
01
No
HENSEL/HENDOK/HAGA /REPUTED
3
IP65 CABLE GLANDS
01
LOT
JACOB/TEBOK /REPUTED
Chhattisgarh State Renewable Energy Development Agency
(Department of Energy, Govt. of Chhattisgarh)
CREDA
MJB 2 INPUT 1 OUTPUT



BILL OF MATERIALS

SLNO	CKT REF	ITEM DESCRIPTION	QTY	UNIT	MAKE
1	F1	HRC FUSE BASE 100A,FUSE LINK 100A,DC RATED	01	No	HPL/GSS/INDOSWAN
2	F2	FUSE LINK 4A	01	No	REPUTED
3	MY	MCCB 125A, 3POLE, DC RATED	01	No	C&S/MEB/SCHNEIDER
4	M2	MCCB 100A 2POLE, DC RATED	01	No	C&S/MEB/SCHNEIDER
5	SW1	16A DOB ROTARY SWITCH	01	No	TEKNIC/VNB/IND
6	SH	SHUNT 150A/75MV	01	No	BCH/SEHAB
7	MT1	DC ANALOG VOLT METER 0-300V, SIZE 96 X 96mm	01	No	GUH/SHAB
8	MT2	DC ANALOG AMMETER METER 150-0-150A, SIZE 96 X 96mm	01	No	GUH/SHAB
9	MT3	DIGITAL CUMULATIVE CHYDIS AH METER OPERATING VOLTAGE 100- 260VDC	01	No	EQUIVISHAS/EQUIPMON/REPUTED
10	SOLAR	CABLE GLAND ANW 31	04	Nos	HPMB/LEAD/TRINITY
11	BATTERY	CABLE GLAND ANW 35	04	Nos	HPMB/LEAD/TRINITY
12	SOLAR & BATTERY	TERMINAL BLOCKS (STRIP) 100A	01	LOT	PHOENIX / ELMEX
13	SOLAR & BATTERY	LUGS FOR INTERNAL WIRING AS WELL AS FOR USER TERMINATIONS	01	LOT	3D/REPUTED
14	---	CABLES (COPPER BUS BAR • POWER CABLE 25SQMM • CONTROL CABLE 1.5SQMM	01	LOT	RR KABEL/FINOLEX/EQUIVALENT

ENCLOSER DETAILS

01	• DIMENSION : 400 X 400 X 165 MM (TYPICAL) • THICKNESS : 1.2 MM • COATING SHADE : RAL 7032(SMOKE GREY) • COATING THICKNESS : 60 MICRONS • FINISHING : POWDER COATING • CABLE ENTRY : BOTTOM • MOUNTING : WALL / FLOOR MOUNTING WITH FASTENERS	REPUTED

LABEL :- 1. DETAIL CIRCUIT DIAGRAM SHALL BE PASTED ON THE LID
2. DANGER SYMBOL SHALL BE PASTED ON THE ENCLOSURE

DESCRIPTION

THIS SHALL CONSIST OF SUITABLE POWDER COATED METAL CASING. IN THIS BOX A SEPARATE ARRANGEMENT WHICH SHALL CONSIST OF MCCBS OF SUITABLE SPECIFICATIONS & WHICH CAN WITHSTAND RESPECTIVE FLOW OF CURRENT, WITH THE PURPOSE OF PROVIDING THE OPTION FOR ISOLATING THE BATTERY BANK & SPV ARRAYS SHOULD BE MADE. THERE SHALL BE COPPER BUS BARS OF SUITABLE RATING. PROPER RATING HRC FUSE & MCCB/ISOLATOR FOR DC APPLICATION SHOULD BE SUITABLY INSTALLED IN DCDB AS BATTERY BANK ISOLATOR. BEST QUALITY AH METER HAS TO BE INSTALLED TO MEASURE THE CUMULATIVE CHARGING & DISCHARGING STATUS OF BATTERY BANK.

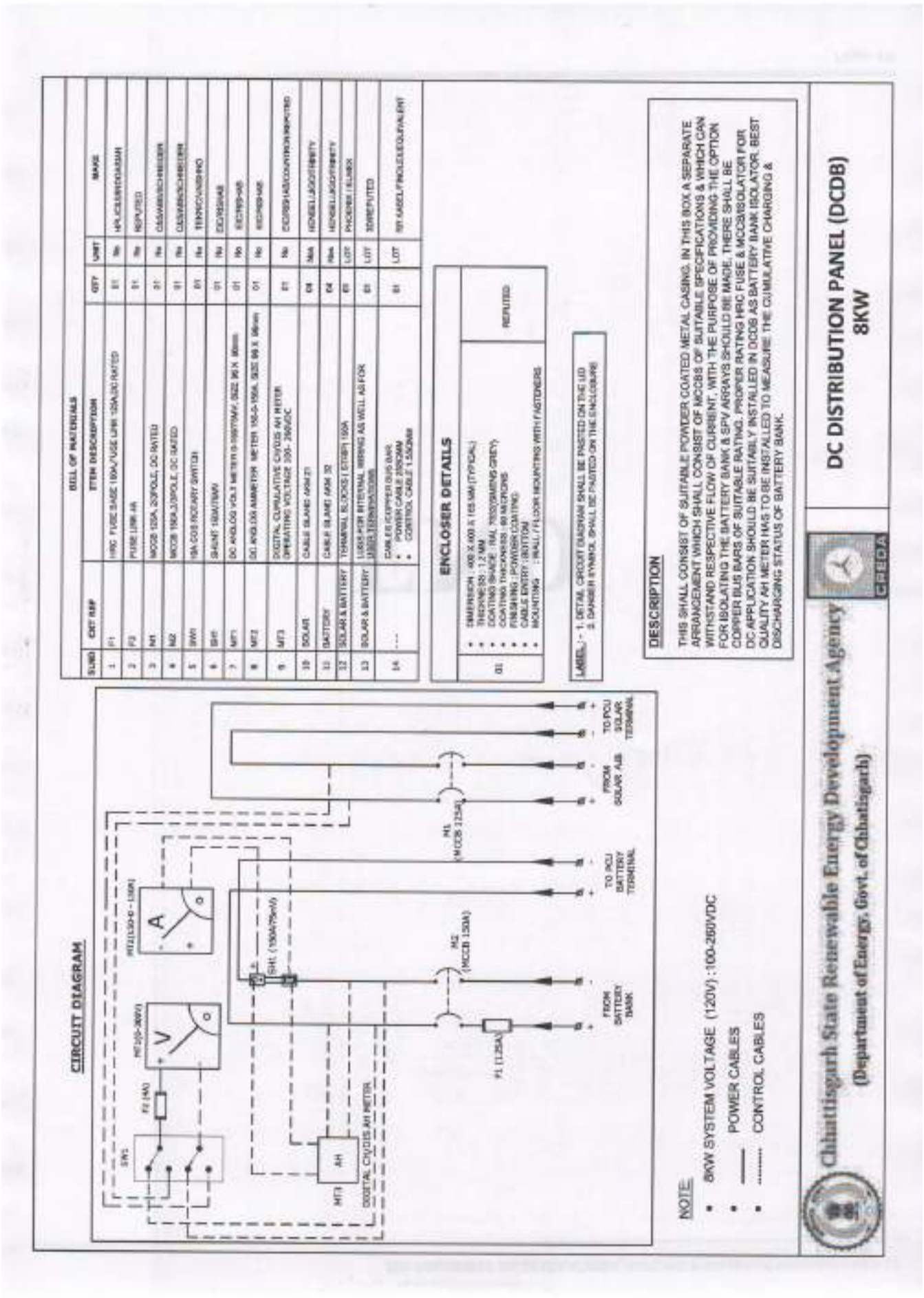
CIRCUIT DIAGRAM

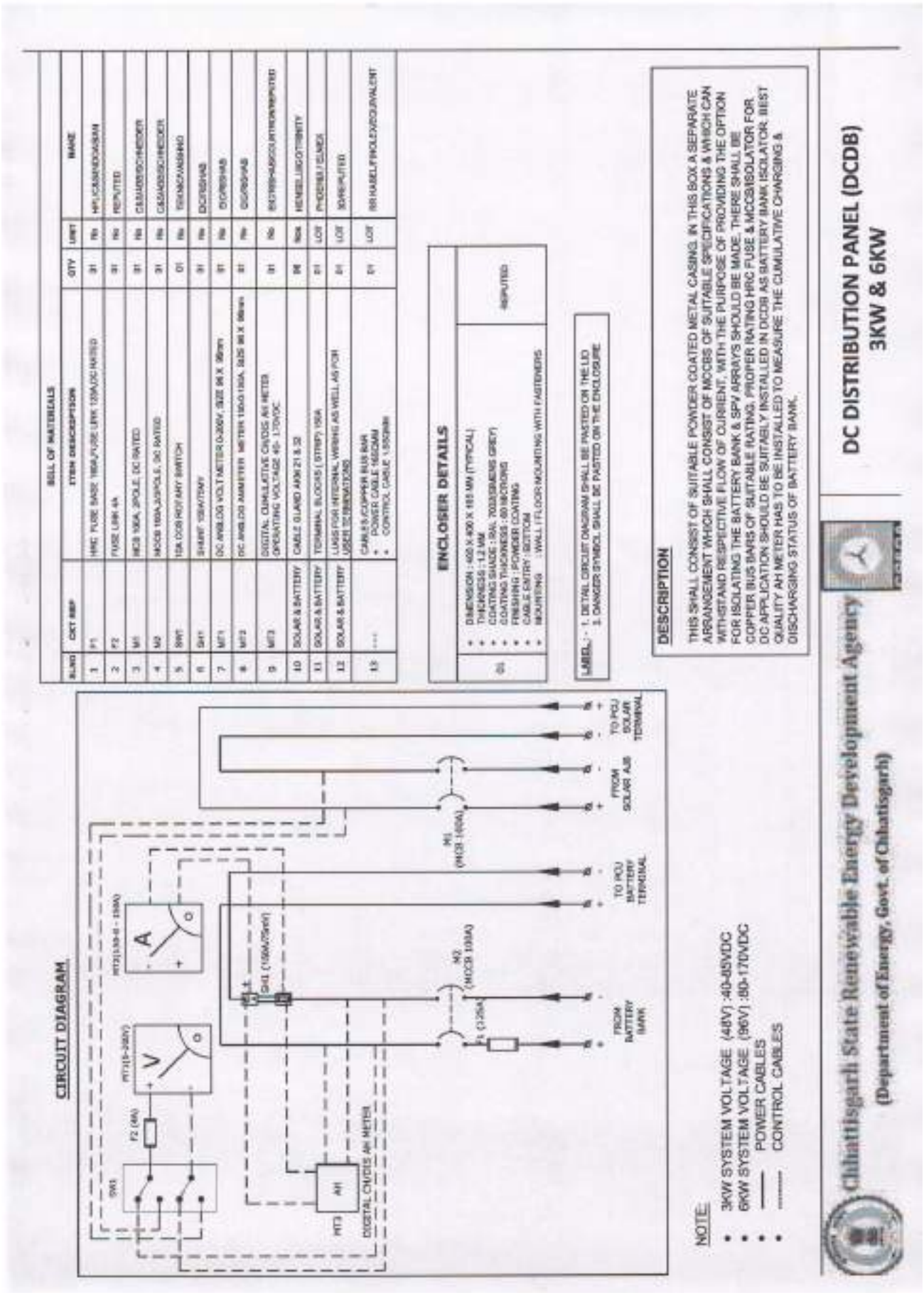
NOTE:

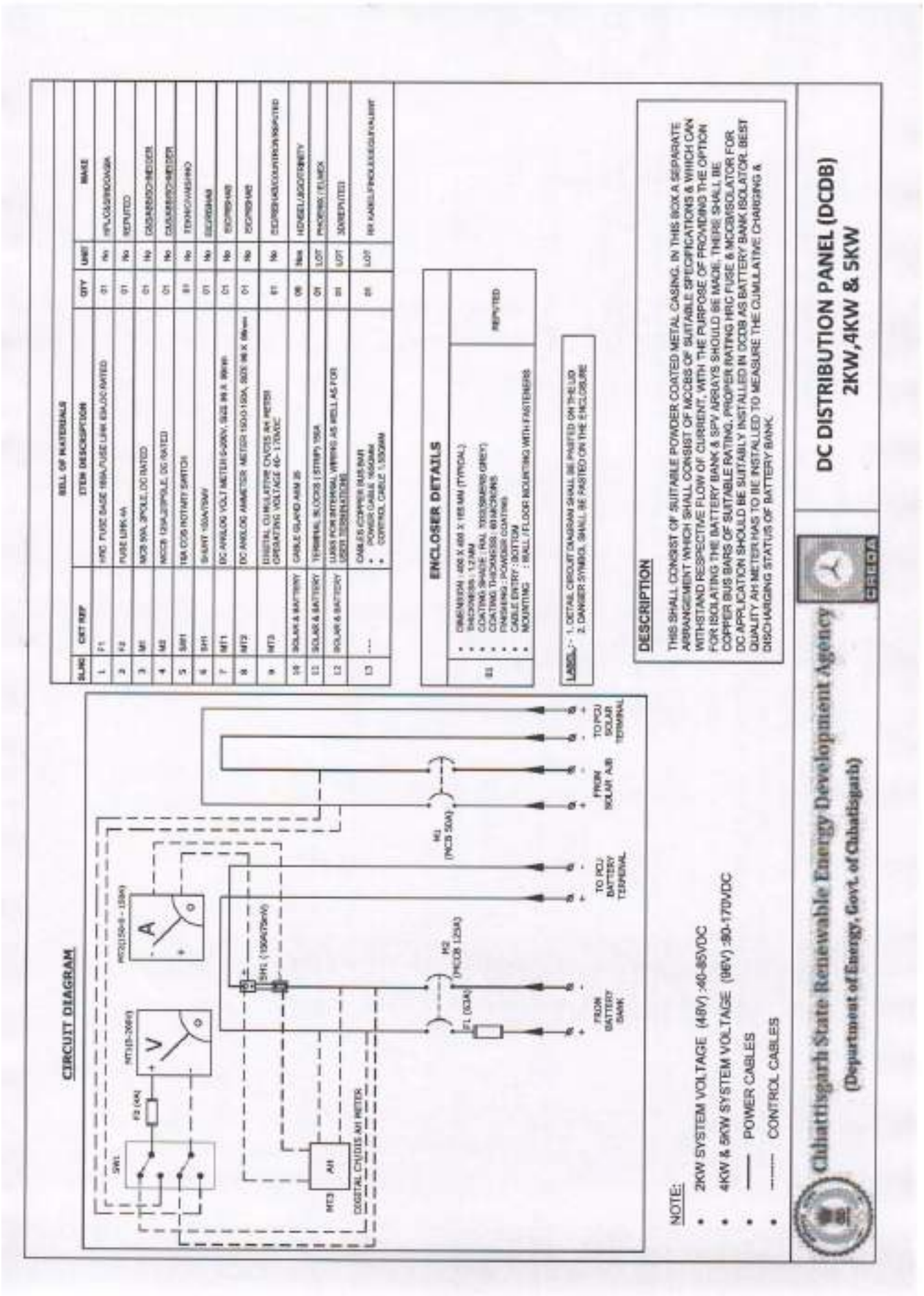
- 10KW SYSTEM VOLTAGE (120V) :100-260VDC
- ——— POWER CABLES
- ------ CONTROL CABLES

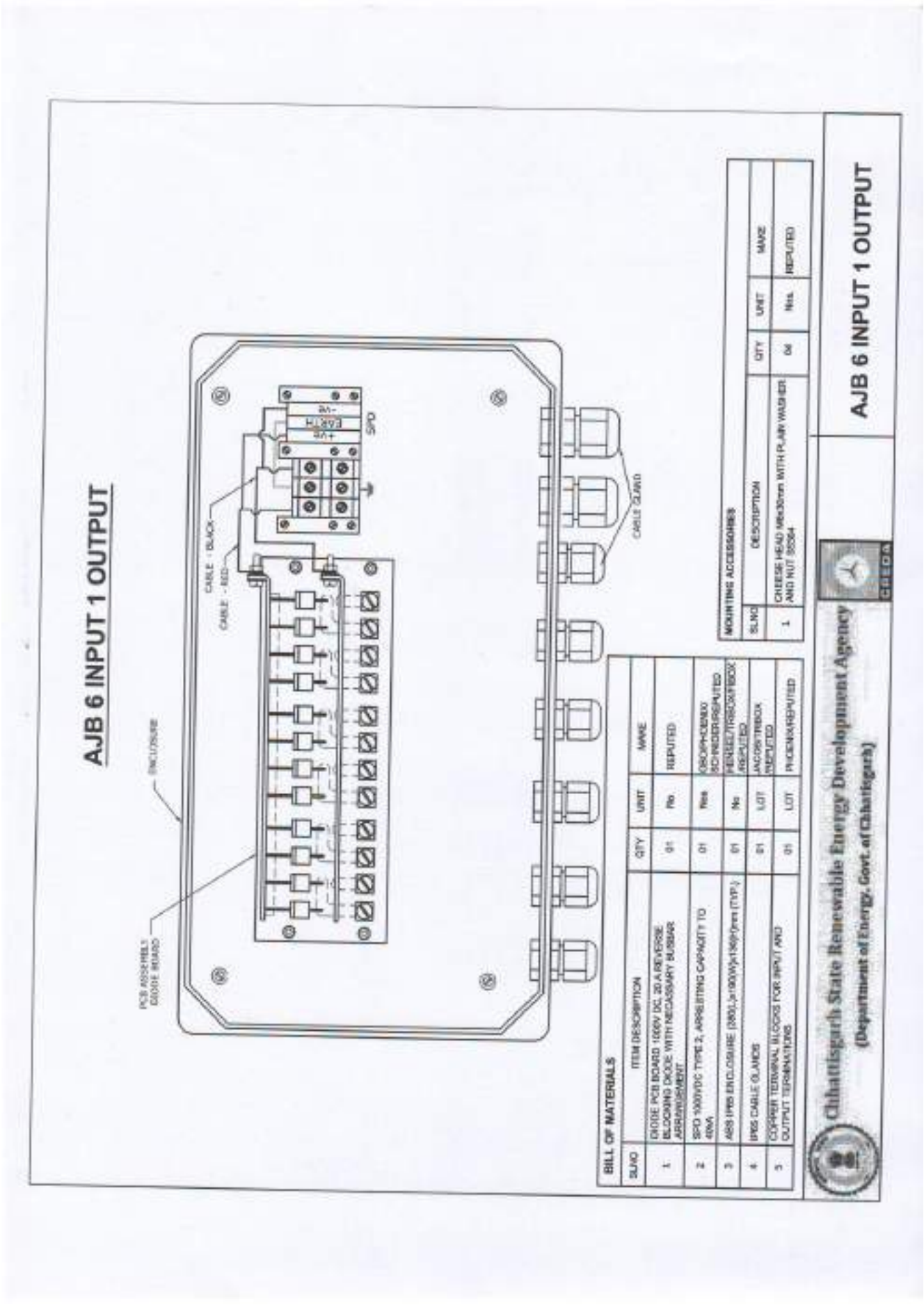
Chhattisgarh State Renewable Energy Development Agency
(Department of Energy, Govt. of Chhattisgarh)

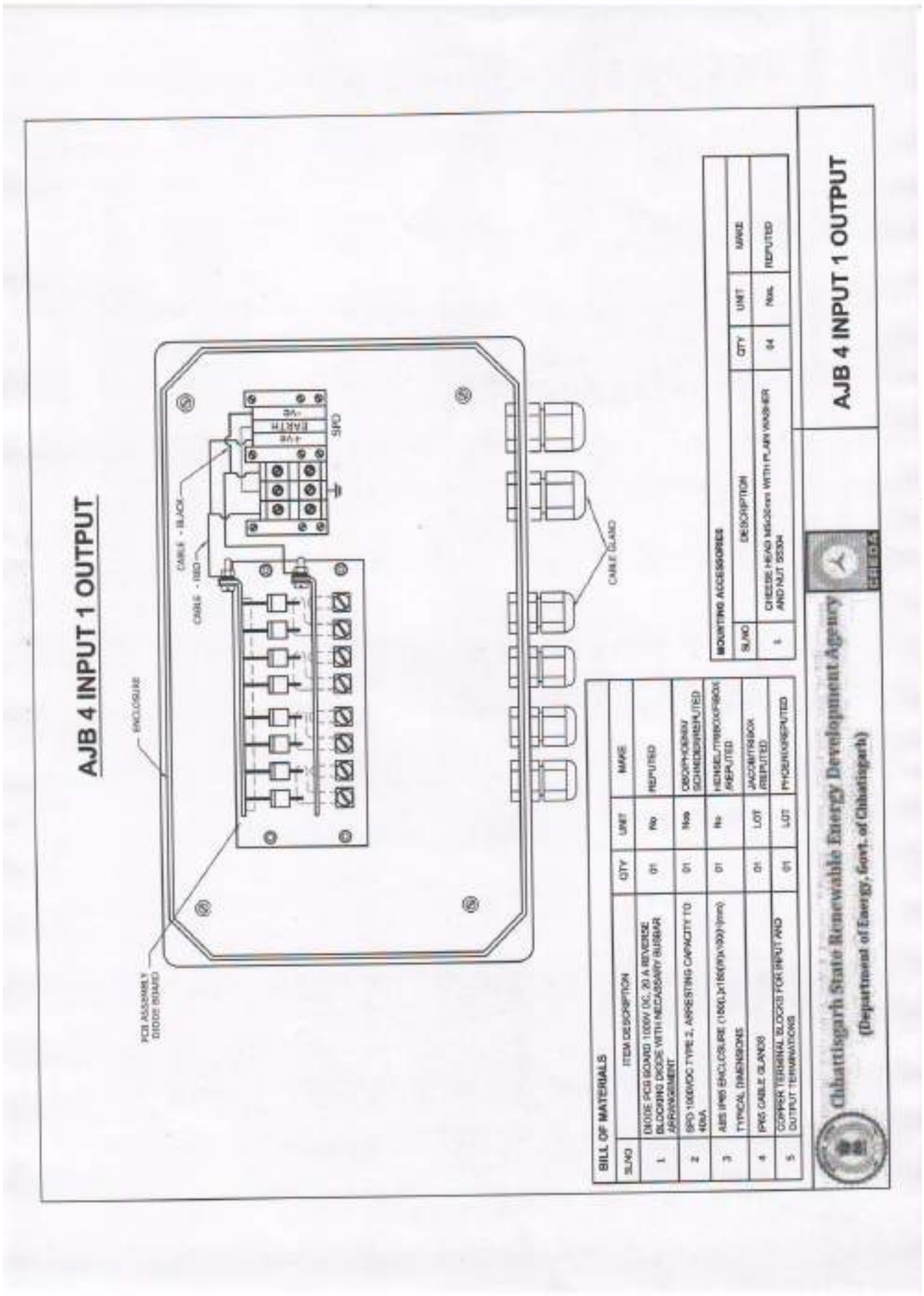
DC DISTRIBUTION PANEL (DCDB)
10KW


BILL OF MATERIALS
SLNO
CKT REF
ITEM DESCRIPTION
QTY
UNIT
MAKE
ENCLOSER DETAILS
DESCRIPTION
THIS SHALL CONSIST OF SUITABLE POWDER COATED METAL CASING. IN THIS BOX A SEPARATE ARRANGEMENT WHICH SHALL CONSIST OF MCCBS OF SUITABLE SPECIFICATIONS & WHICH CAN WITHSTAND RESPECTIVE FLOW OF CURRENT, WITH THE PURPOSE OF PROVIDING THE OPTION FOR ISOLATING THE BATTERY BANK & SPV ARRAYS SHOULD BE MADE. THERE SHALL BE COPPER BUS BARS OF SUITABLE RATING, PROPER RATING HRC FUSE & MCCB/ISOLATOR FOR DC APPLICATION SHOULD BE SUITABLY INSTALLED IN DCDB AS BATTERY BANK ISOLATOR. BEST QUALITY AH METER HAS TO BE INSTALLED TO MEASURE THE CUMULATIVE CHARGING & DISCHARGING STATUS OF BATTERY BANK.
CIRCUIT DIAGRAM
NOTE
8KW SYSTEM VOLTAGE (120V) :100-260VDC
POWER CABLES
CONTROL CABLES
Chhattisgarh State Renewable Energy Development Agency
(Department of Energy, Govt. of Chhattisgarh)
CREDA
DC DISTRIBUTION PANEL (DCDB)
8KW

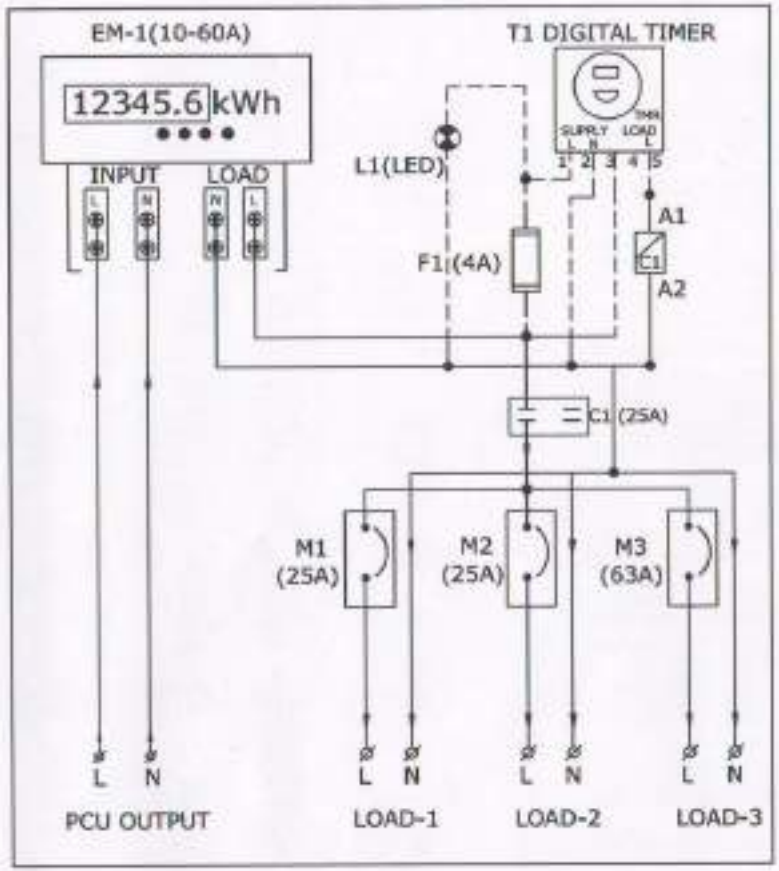

DC DISTRIBUTION PANEL (DCDB)
3KW & 6KW
Chhattisgarh State Renewable Energy Development Agency
(Department of Energy, Govt. of Chhatisgarh)
DESCRIPTION
THIS SHALL CONSIST OF SUITABLE POWDER COATED METAL CASING IN THIS BOX A SEPARATE ARRANGEMENT WHICH SHALL CONSIST OF MCCBS OF SUITABLE SPECIFICATIONS & WHICH CAN WITHSTAND RESPECTIVE FLOW OF CURRENT, WITH THE PURPOSE OF PROVIDING THE OPTION FOR ISOLATING THE BATTERY BANK & SPV ARRAYS SHOULD BE MADE. THERE SHALL BE COPPER BUS BARS OF SUITABLE RATING, PROPER RATING HRC FUSE & MCCBISOLATOR FOR DC APPLICATION SHOULD BE SUITABLY INSTALLED IN DCDB AS BATTERY BANK ISOLATOR. BEST QUALITY AH METER HAS TO BE INSTALLED TO MEASURE THE CUMULATIVE CHARGING & DISCHARGING STATUS OF BATTERY BANK.
LABEL :- 1. DETAIL CIRCUIT DIAGRAM SHALL BE PASTED ON THE LID
2. DANGER SYMBOL SHALL BE PASTED ON THE ENCLOSURE
ENCLOSER DETAILS
DIMENSION : 400 X 400 X 150 MM (TYPICAL)
THICKNESS : 1.2 MM
COATING SHADE : RAL 7032(SHADES GREY)
COATING THICKNESS : 60 MICRONS
FINISHING : POWDER COATING
CABLE ENTRY : BOTTOM
MOUNTING : WALL / FLOOR MOUNTING WITH FASTENERS
QTY : 01
REMARKS : REPUTED
BILL OF MATERIALS
SLNO
CKT REF
ITEM DESCRIPTION
QTY
UNIT
MAKE
1 F1 HRC FUSE BASE 160A,FUSE LINK 125A(DC RATED) 01 No HPC/CG/ENDEAVOUR
2 F2 FUSE LINK 4A 01 No REPUTED
3 M1 MCB 160A, 2POLE, DC RATED 01 No C&S/L&T/SCHNEIDER
4 M2 MCCB 100A,2POLE, DC RATED 01 No C&S/L&T/SCHNEIDER
5 SW1 125A DC(2) ROTARY SWITCH 01 No TEKNIC/VAISHNO
6 SH1 SHUNT 100A/75MV 01 No DOSHNI
7 MT1 DC ANALOG VOLT METER 0-300V, SIZE 96 X 96mm 01 No DOSHNI
8 MT2 DC ANALOG AMMETER METER 150-0-150A, SIZE 96 X 96mm 01 No DOSHNI
9 MT3 DIGITAL CUMULATIVE CHYDIS AH METER OPERATING VOLTAGE 40- 170VDC 01 No RISHABH/MECO/INTRONICS/EQUIVALENT
10 SOLAR & BATTERY CABLE GLAND ANW 21 & 32 06 Nos HENSEL/JIGOTI/BRITY
11 SOLAR & BATTERY TERMINAL BLOCK(S) (STRIP) 150A 01 LOT PHOENIX/ELMEX
12 SOLAR & BATTERY LUGS FOR INTERNAL WIRING AS WELL AS FOR USER INTERCONNECTIONS 01 LOT 3M/REPUTED
13 ... CABLES (COPPER BUS BAR
• POWER CABLE 16SQMM
• CONTROL CABLE 1.5SQMM 01 LOT RR KABEL/FINOLEX/EQUIVALENT
CIRCUIT DIAGRAM
SW1
F2 (4A)
MT2(0-50-0 - 150A)
MT1(0-300V)
DIGITAL CHYDIS AH METER
MT3
AH
SH1 (100A/75mV)
F1 (125A)
M2 (MCCB 100A)
M1 (MCB 160A)
FROM BATTERY BANK
TO PCU BATTERY TERMINAL
FROM SOLAR A/B
TO PCU SOLAR TERMINAL
NOTE
3KW SYSTEM VOLTAGE (48V) :40-55VDC
6KW SYSTEM VOLTAGE (96V) :80-117VDC
POWER CABLES
CONTROL CABLES


DC DISTRIBUTION PANEL (DCDB)
2KW,4KW & 5KW
Chhattisgarh State Renewable Energy Development Agency
(Department of Energy, Govt. of Chhattisgarh)
CREDA
BILL OF MATERIALS
SLNO
CKT REF
ITEM DESCRIPTION
QTY
UNIT
MAKE
ENCLOSER DETAILS
DESCRIPTION
THIS SHALL CONSIST OF SUITABLE POWDER COATED METAL CASING. IN THIS BOX A SEPARATE ARRANGEMENT WHICH SHALL CONSIST OF MCCBS OF SUITABLE SPECIFICATIONS & WHICH CAN WITHSTAND RESPECTIVE FLOW OF CURRENT, WITH THE PURPOSE OF PROVIDING THE OPTION FOR ISOLATING THE BATTERY BANK & SPV ARRAYS SHOULD BE MADE. THERE SHALL BE COPPER BUS BARS OF SUITABLE RATING, PROPER RATING HRC FUSE & MCCB/ISOLATOR FOR DC APPLICATION SHOULD BE SUITABLY INSTALLED IN DCDB AS BATTERY BANK ISOLATOR. BEST QUALITY AH METER HAS TO BE INSTALLED TO MEASURE THE CUMULATIVE CHARGING & DISCHARGING STATUS OF BATTERY BANK
CIRCUIT DIAGRAM
NOTE:
2KW SYSTEM VOLTAGE (48V) :40-85VDC
4KW & 5KW SYSTEM VOLTAGE (96V) :80-170VDC
POWER CABLES
CONTROL CABLES


AJB 6 INPUT 1 OUTPUT
ENCLOSURE
PCB ASSEMBLY DIODE BOARD
CABLE - BLACK
CABLE - RED
SPD
CABLE GLAND
BILL OF MATERIALS
SLNO
ITEM DESCRIPTION
QTY
UNIT
MAKE
1
DIODE PCB BOARD 1000V DC 20 A REVERSE BLOCKING DIODE WITH NECESSARY BUSBAR ARRANGEMENT
01
No
REPUTED
2
SPD 1000VDC TYPE 2, ARRESTING CAPACITY TO 40kA
01
Nos
OBJOPHOENIX/ SCHNEIDER/REPUTED
3
ABS (IP65 ENCLOSURE (300Lx190Wx136Hmm (TYP.)
01
No
HENSEL/TRISONIBOX/ REPUTED
4
BRASS CABLE GLANDS
01
LOT
JACOB/TRIBOX INTEPUTED
5
COPPER TERMINAL BLOCKS FOR INPUT AND OUTPUT TERMINATIONS
01
LOT
PHOENIX/REPUTED
MOUNTING ACCESSORIES
SLNO
DESCRIPTION
QTY
UNIT
MAKE
1
CHEESE HEAD M6x30mm WITH PLAIN WASHER AND NUT SS304
04
Nos.
REPUTED
Chhattisgarh State Renewable Energy Development Agency
(Department of Energy, Govt. of Chhattisgarh)
CREDA
AJB 6 INPUT 1 OUTPUT


AJB 4 INPUT 1 OUTPUT
ENCLOSURE
PCB ASSEMBLY DIODE BOARD
CABLE - BLACK
CABLE - RED
SPD
-VE
EARTH
+VE
CABLE GLAND
BILL OF MATERIALS
SL NO
ITEM DESCRIPTION
QTY
UNIT
MAKE
1
DIODE PCB BOARD 1000V DC, 20 A REVERSE BLOCKING DIODE WITH NECESSARY BUSBAR ARRANGEMENT
01
No
REPUTED
2
SPD 1000VDC TYPE 2, ARRESTING CAPACITY TO 40kA
01
Nos
OBDOPHOENIX/ SCHNEIDER/REPUTED
3
ABS IP65 ENCLOSURE (1550.3x185(H)x300(mm) TYPICAL DIMENSIONS
01
No
HENSEL/TYBOX/PHOENIX REPUTED
4
IP65 CABLE GLANDS
01
LOT
JACOB/TYBOX REPUTED
5
COPPER TERMINAL BLOCKS FOR INPUT AND OUTPUT TERMINATIONS
01
LOT
PHOENIX/REPUTED
MOUNTING ACCESSORIES
SL NO
DESCRIPTION
QTY
UNIT
MAKE
1
CHEESE HEAD M6x30mm WITH PLAIN WASHER AND NUT SS304
04
Nos.
REPUTED
Chhattisgarh State Renewable Energy Development Agency
(Department of Energy, Govt. of Chhattisgarh)
AJB 4 INPUT 1 OUTPUT

CIRCUIT DIAGRAM



NOTE:

- —— POWER CABLES
- — — CONTROL CABLES

BILL OF MATERIALS

SLNO	CKT REF	ITEM DESCRIPTION	QTY	UNIT	MAKE
1	EM - 1	DIGITAL ELECTRONIC ENERGY METER (kWH) 10-60A	1	No	L&T / SECURE
2	F1	FUSE LINK 4Amps	1	No	REPUTED
3	T1	DIGITAL PROGRAMMABLE TIMER WITH RTC	1	No	FRONTIER / L&T & REPUTED
4	C1	CONTACTOR - 1P, AC - A13-30-10	1	No	ABB / L&T
5	L1	POWER 'ON' LAMP (LED) 230V AC GREEN COLOR	1	No	TEKNIC / VAISHNO / REPUTED
6	M1,M2	1 POLE MCB 25A, 230VAC	2	Nos	SCHNEIDER / ABB / C&S
7	M3	1 POLE MCB 63A, 230VAC	1	No	SCHNEIDER / ABB / C&S
8	MAINS & PCU	CABLE GLAND PG - 21	2	Nos	JIGO / COMMECTWELL / HENSEL / OBO
9	FEEDERS	CABLE GLAND PG - 16	3	Nos	JIGO / COMMECTWELL / HENSEL / OBO
10	MAINS & PCU	TERMINAL BLOCKS UK16	04	Nos	DEGA / PHOENIX / ELMEX
11	FEEDERS	TERMINAL BLOCKS UK16	06	Nos	DEGA / PHOENIX / ELMEX
12	TERMINALS ACCESSORIES	LUGS FOR INTERNAL WIRING AS WELL AS FOR USER TERMINATIONS	14	Nos	DEGA / PHOENIX / ELMEX
13	----	CABLES /COPPER BUS BAR + POWER CABLE 10SQMM + CONTROL CABLE 1.5SQMM	01	LOT	RR KABEL/FINOLEX/EQUIVALENT MAKE

ENCLOSER DETAILS

01	+ DIMENSION : 400 X 400 X 210 MM (TYPICAL) + THICKNESS : 1.2 MM + COATING SHADE : RAL 7032(SIEMENS GREY) + COATING THICKNESS : 60 MICRONS + FINISHING : POWDER COATING + CABLE ENTRY : BOTTOM + MOUNTING : WALL / FLOOR MOUNTING WITH FASTENERS	REPUTED

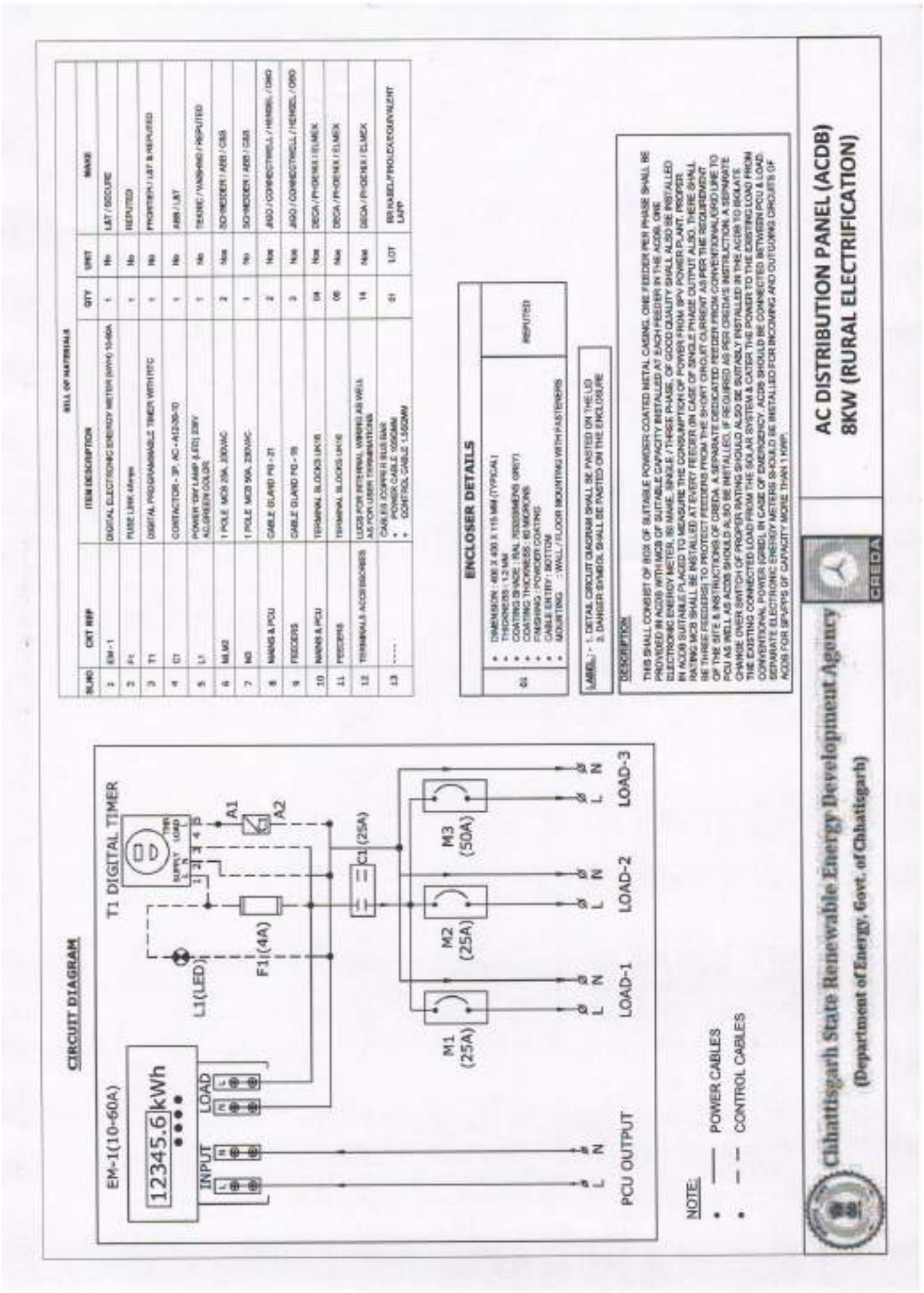
LABEL :- 1. DETAIL CIRCUIT DIAGRAM SHALL BE PASTED ON THE LID
2. DANGER SYMBOL SHALL BE PASTED ON THE ENCLOSURE

DESCRIPTION

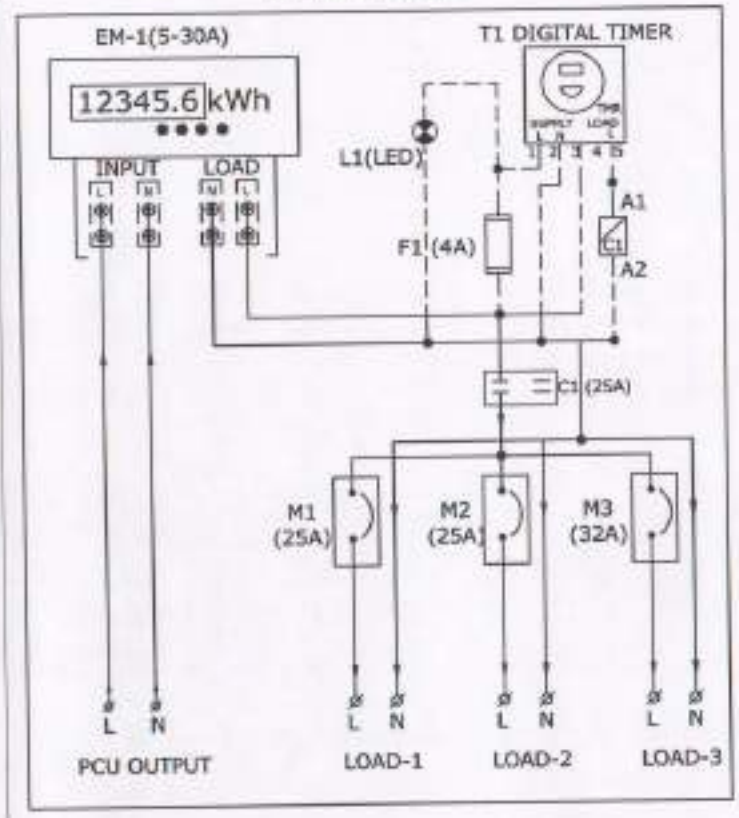
THIS SHALL CONSIST OF BOX OF SUITABLE POWDER COATED METAL CASING. ONE FEEDER PER PHASE SHALL BE PROVIDED IN ACDB WITH MCB OF SUITABLE CAPACITY INSTALLED AT EACH FEEDER IN THE ACDB. ONE ELECTRONIC ENERGY METER, ISI MAKE, SINGLE / THREE PHASE, OF GOOD QUALITY SHALL ALSO BE INSTALLED IN ACDB SUITABLE PLACED TO MEASURE THE CONSUMPTION OF POWER FROM SPV POWER PLANT. PROPER RATING MCB SHALL BE INSTALLED AT EVERY FEEDER (IN CASE OF SINGLE PHASE OUTPUT ALSO, THERE SHALL BE THREE FEEDERS) TO PROTECT FEEDERS FROM THE SHORT CIRCUIT CURRENT AS PER THE REQUIREMENT OF THE SITE & INSTRUCTIONS OF CREDA. A SEPARATE DEDICATED FEEDER FROM CONVENTIONAL/GRID LINE TO PCU AS WELL AS ACDB SHOULD ALSO BE INSTALLED. IF REQUIRED AS PER CREDA'S INSTRUCTION, A SEPARATE CHANGE OVER SWITCH OF PROPER RATING SHOULD ALSO BE SUITABLY INSTALLED IN THE ACDB TO ISOLATE THE EXISTING CONNECTED LOAD FROM THE SOLAR SYSTEM & CATER THE POWER TO THE EXISTING LOAD FROM CONVENTIONAL POWER (GRID), IN CASE OF EMERGENCY. ACDB SHOULD BE CONNECTED BETWEEN PCU & LOAD. SEPARATE ELECTRONIC ENERGY METERS SHOULD BE INSTALLED FOR INCOMING AND OUTGOING CIRCUITS OF ACDB FOR SPVPPS OF CAPACITY MORE THAN 1 KWP.

Chhattisgarh State Renewable Energy Development Agency
(Department of Energy, Govt. of Chhatisgarh)

AC DISTRIBUTION PANEL (ACDB)
10KW (RURAL ELECTRIFICATION)


AC DISTRIBUTION PANEL (ACDB)
8KW (RURAL ELECTRIFICATION)
Chhattisgarh State Renewable Energy Development Agency
(Department of Energy, Govt. of Chhattisgarh)
CREDA
BILL OF MATERIALS
SLNO
CKT REF
ITEM DESCRIPTION
QTY
UNIT
MAKE
ENCLOSER DETAILS
DESCRIPTION
CIRCUIT DIAGRAM
EM-1(10-60A)
12345.6 kWh
INPUT
LOAD
PCU OUTPUT
T1 DIGITAL TIMER
L1(LED)
F1(4A)
A1
A2
C1 (25A)
M1 (25A)
M2 (25A)
M3 (50A)
LOAD-1
LOAD-2
LOAD-3
NOTE:
POWER CABLES
CONTROL CABLES

CIRCUIT DIAGRAM



NOTE:

- ——— POWER CABLES
- ------- CONTROL CABLES

BILL OF MATERIALS

SL.NO	CKT REF	ITEM DESCRIPTION	QTY	UNIT	MAKE
1	EM - 1	DIGITAL ELECTRONIC ENERGY METER (kWh) 5-30A	1	No	L&T / SECURE
2	F1	FUSE LINK 4Amps	1	No	REPUTED
3	T1	DIGITAL PROGRAMMABLE TIMER WITH RTC	1	No	FRONTIER / L&T / REPUTED
4	C1	CONTACTOR - 3P, AC - A(12-30-10	1	No	ABB / L&T
5	L1	POWER ON/ LAMP (LED) 230V AC,GREEN COLOR	1	No	TEKNIC / YASHIKO / REPUTED
6	MUM2	1 POLE MCB 25A, 230VAC	2	Nos	SCHNEIDER / ABB / C&S
7	M2	1 POLE MCB 32A, 230VAC	1	No	SCHNEIDER / ABB / C&S
8	NMMS & PCU	CABLE GLAND PG - 21	2	Nos	JIGO / CONNECTWELL / HENSEL / OBO
9	FEEDERS	CABLE GLAND PG - 16	3	Nos	JIGO / CONNECTWELL / HENSEL / OBO
10	NMMS & PCU	TERMINAL BLOCKS UK25	04	Nos	DEGA / PHOENIX / ELMEX
11	FEEDERS	TERMINAL BLOCKS UK16	05	Nos	DEGA / PHOENIX / ELMEX
12	TERMINALS ACCESSORIES	LUGS FOR INTERNAL WIRING AS WELL AS FOR USER TERMINATIONS	16	Nos	DEGA / PHOENIX / ELMEX
13	----	CABLES (COPPER BUS BAR) • POWER CABLE 6SQMM • CONTROL CABLE 1.5SQMM	01	LOT	RR CABEL/FINOLEX/EQUIVALENT

ENCLOSER DETAILS

01	• DIMENSION : 400 X 400 X 115 MM (TYPICAL) • THICKNESS : 1.2 MM • COATING SHADE : RAL 7032/SIEMENS GREY • COATING THICKNESS : 60 MICRONS • FINISHING : POWDER COATING • CABLE ENTRY : BOTTOM • MOUNTING : WALL / FLOOR MOUNTING WITH FASTENERS	REPUTED

LABEL: - 1. DETAIL CIRCUIT DIAGRAM SHALL BE PASTED ON THE LID
2. DANGER SYMBOL SHALL BE PASTED ON THE ENCLOSURE

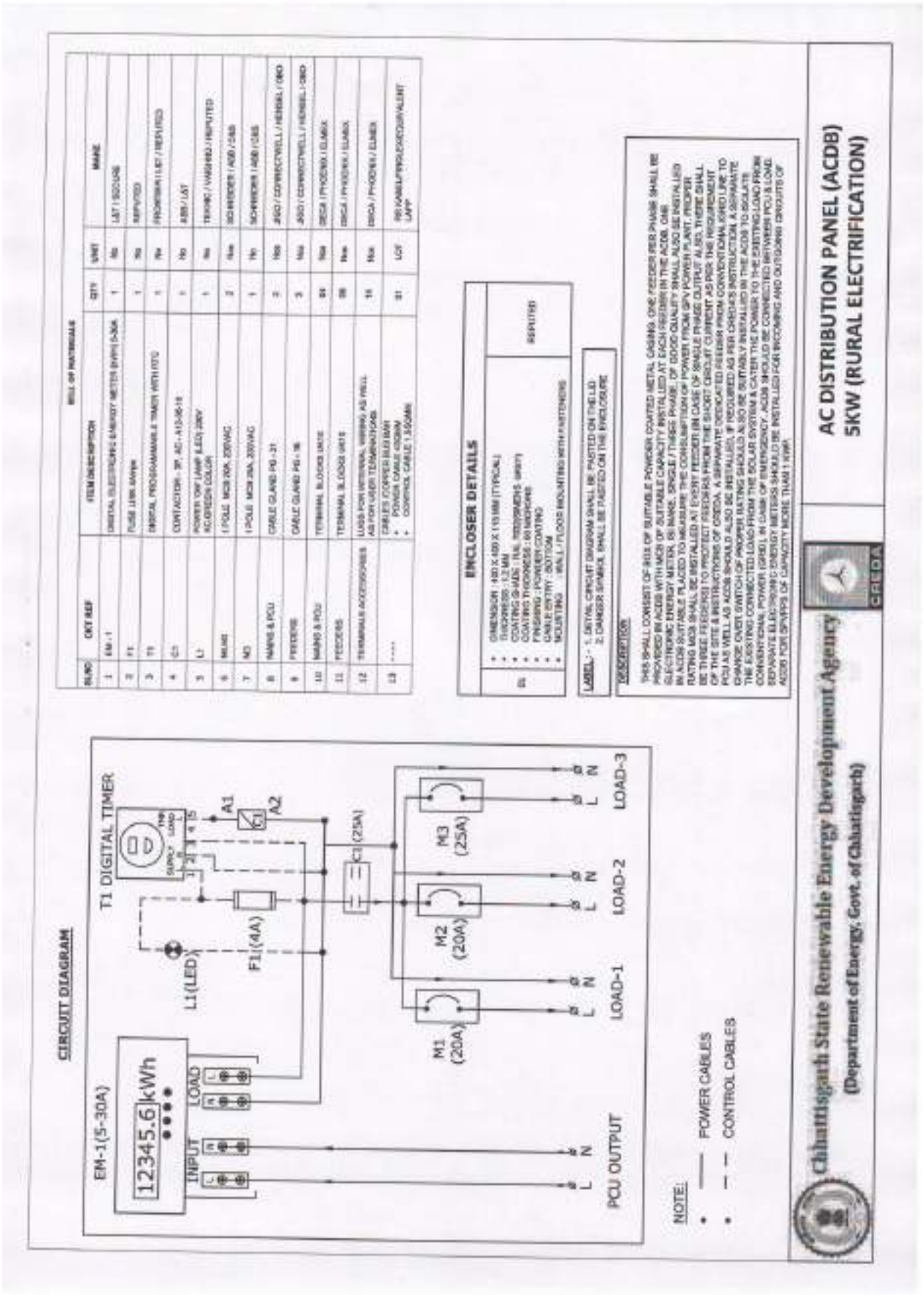
DESCRIPTION

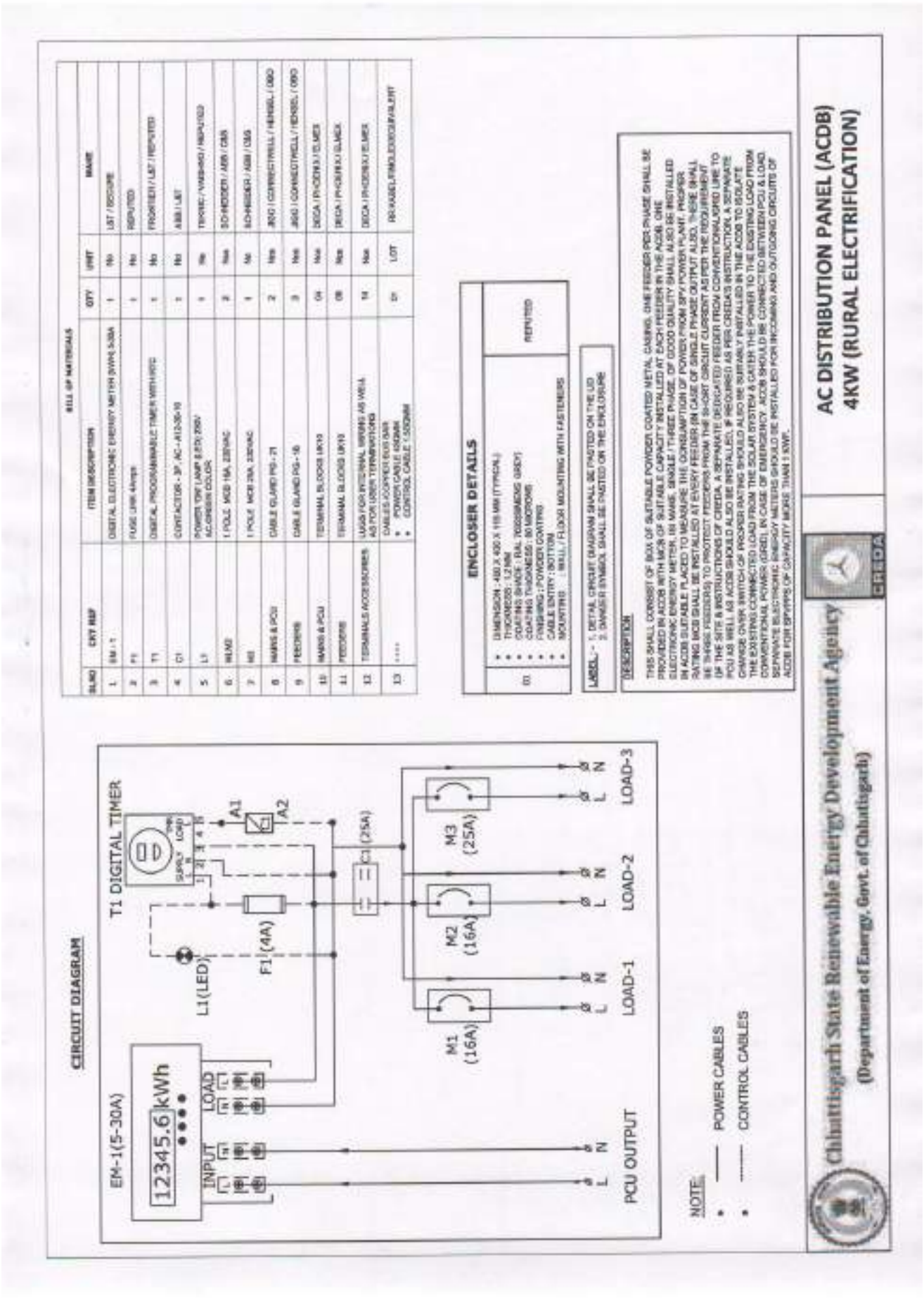
THIS SHALL CONSIST OF BOX OF SUITABLE POWDER COATED METAL CASING. ONE FEEDER PER PHASE SHALL BE PROVIDED IN ACDB WITH MCB OF SUITABLE CAPACITY INSTALLED AT EACH FEEDER IN THE ACDB. ONE ELECTRONIC ENERGY METER, ISI MARK, SINGLE / THREE PHASE, OF GOOD QUALITY SHALL ALSO BE INSTALLED IN ACDB SUITABLE PLACED TO MEASURE THE CONSUMPTION OF POWER FROM SPV POWER PLANT. PROPER RATING MCB SHALL BE INSTALLED AT EVERY FEEDER (IN CASE OF SINGLE PHASE OUTPUT ALSO, THERE SHALL BE THREE FEEDERS) TO PROTECT FEEDERS FROM THE SHORT CIRCUIT CURRENT AS PER THE REQUIREMENT OF THE SITE & INSTRUCTIONS OF CREDA. A SEPARATE DEDICATED FEEDER FROM CONVENTIONAL/GRID LINE TO PCU AS WELL AS ACDB SHOULD ALSO BE INSTALLED, IF REQUIRED AS PER CREDA'S INSTRUCTION. A SEPARATE CHANGE OVER SWITCH OF PROPER RATING SHOULD ALSO BE SUITABLY INSTALLED IN THE ACDB TO ISOLATE THE EXISTING CONNECTED LOAD FROM THE SOLAR SYSTEM & CATER THE POWER TO THE EXISTING LOAD FROM CONVENTIONAL POWER (GRID), IN CASE OF EMERGENCY. ACDB SHOULD BE CONNECTED BETWEEN PCU & LOAD. SEPARATE ELECTRONIC ENERGY METERS SHOULD BE INSTALLED FOR INCOMING AND OUTGOING CIRCUITS OF ACDB FOR SPV/PS OF CAPACITY MORE THAN 1 KWP.

Chhattisgarh State Renewable Energy Development Agency
(Department of Energy, Govt. of Chhattisgarh)

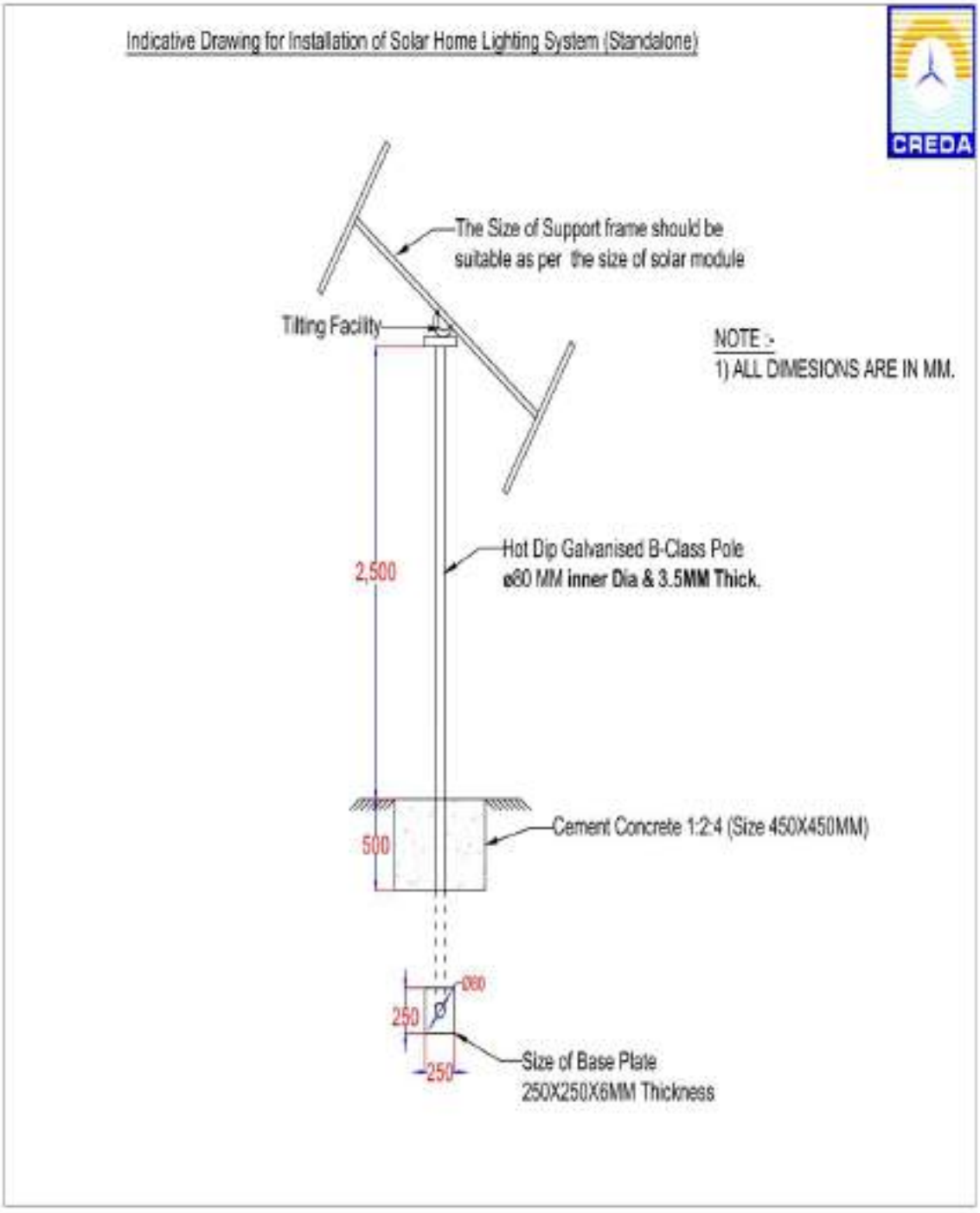
CREDA

AC DISTRIBUTION PANEL (ACDB)
6KW (RURAL ELECTRIFICATION)


AC DISTRIBUTION PANEL (ACDB)
5KW (RURAL ELECTRIFICATION)
Chhattisgarh State Renewable Energy Development Agency
(Department of Energy, Govt. of Chhattisgarh)
CREDA
CIRCUIT DIAGRAM
T1 DIGITAL TIMER
EM-1(5-30A)
12345.6 kWh
INPUT
LOAD
L1(LED)
F1(4A)
C1 (25A)
A1
A2
M1 (20A)
M2 (20A)
M3 (25A)
PCU OUTPUT
LOAD-1
LOAD-2
LOAD-3
NOTE:
POWER CABLES
CONTROL CABLES
BILL OF MATERIALS
ENCLOSER DETAILS
DESCRIPTION
LABEL :-


BILL OF MATERIALS
SL.NO
CKT REF
ITEM DESCRIPTION
QTY
UNIT
MAKE
1. EM-1 DIGITAL ELECTRONIC ENERGY METER (5-30A) 1 No L&T / EQUIVALENT
2. F1 FUSE UNIT 4Amps 1 No REPUTED
3. T1 DIGITAL PROGRAMMABLE TIMER WITH RTC 1 No FRONTECH / L&T / REPUTED
4. C1 CONTACTOR - 3P, AC - A12-30-10 1 No ABB / L&T
5. L1 POWER ON LAMP (LED) 230V AC-GREEN COLOR 1 no TRIVEC / VAISHNO / REPUTED
6. MAIN 1 POLE MCB 16A, 230VAC 2 Nos SCHNEIDER / ABB / C60
7. M3 1 POLE MCB 25A, 230VAC 1 No SCHNEIDER / ABB / C60
8. MAINS & PCU CABLE GLAND PG - 21 2 Nos JIGO / CONNECTWELL / HENSEL / GEO
9. FEEDERS CABLE GLAND PG - 16 3 Nos JIGO / CONNECTWELL / HENSEL / GEO
10. MAINS & PCU TERMINAL BLOCKS (4KV) 04 Nos DEGA / PHOENIX / ELMEX
11. FEEDERS TERMINAL BLOCKS (2KV) 08 Nos DEGA / PHOENIX / ELMEX
12. TERMINALS ACCESSORIES LUGS FOR INTERNAL WIRING AS WELL AS FOR USER TERMINATIONS 14 Nos DEGA / PHOENIX / ELMEX
13. ..... CABLES ACCORDING TO BOM
• POWER CABLE 4SQMM
• CONTROL CABLE 1.5SQMM
01 LOT REPUTED/EQUIVALENT
ENCLOSER DETAILS
• DIMENSION - 450 X 400 X 115 MM (TYPICAL)
• THICKNESS : 1.2 MM
• COATING SHADE : RAL 7035(SMOOTH) GREY
• COATING THICKNESS : 80 MICRONS
• FINISHING : POWDER COATING
• CABLE ENTRY : BOTTOM
• MOUNTING : WALL / FLOOR MOUNTING WITH FASTENERS
LABEL :- 1. DETAIL CIRCUIT DIAGRAM SHALL BE PASTED ON THE LID
2. DANGER SYMBOL SHALL BE PASTED ON THE ENCLOSURE
DESCRIPTION
THIS SHALL CONSIST OF BOX OF SUITABLE POWDER COATED METAL CASING, ONE FEEDER PER PHASE SHALL BE PROVIDED IN ACDB WITH MCB OF SUITABLE CAPACITY INSTALLED AT EACH FEEDER IN THE ACDB. ONE ELECTRONIC ENERGY METER, 05 MARK, SINGLE / THREE PHASE, OF GOOD QUALITY SHALL ALSO BE INSTALLED IN ACDB SUITABLE PLACED TO MEASURE THE CONSUMPTION OF POWER FROM SPV POWER PLANT. PROPER RATING MCB SHALL BE INSTALLED AT EVERY FEEDER (IN CASE OF SINGLE PHASE OUTPUT ALSO), THERE SHALL BE THREE FEEDERS) TO PROTECT FEEDERS FROM THE SHORT CIRCUIT CURRENT AS PER THE REQUIREMENT OF THE SITE & INSTRUCTIONS OF CREDA. A SEPARATE DEDICATED FEEDER FROM CONVENTIONAL/GRID LINE TO PCU AS WELL AS ACDB SHOULD ALSO BE INSTALLED, IF REQUIRED AS PER CREDA'S INSTRUCTION. A SEPARATE CHANGE OVER SWITCH OF PROPER RATING SHOULD ALSO BE SUITABLY INSTALLED IN THE ACDB TO ISOLATE THE EXISTING CONNECTED LOAD FROM THE SOLAR SYSTEM & CATER THE POWER TO THE EXISTING LOAD FROM CONVENTIONAL POWER (GRID). IN CASE OF EMERGENCY, ACDB SHOULD BE CONNECTED BETWEEN PCU & LOAD. SEPARATE ELECTRONIC ENERGY METERS SHOULD BE INSTALLED FOR INCOMING AND OUTGOING CIRCUITS OF ACDB FOR BYPASS OF CAPACITY MORE THAN 5 KWP.
CIRCUIT DIAGRAM
T1 DIGITAL TIMER
EM-1(5-30A)
12345.6 kWh
INPUT
LOAD
L1(LED)
F1 (4A)
A1
A2
C1 (25A)
M1 (16A)
M2 (16A)
M3 (25A)
PCU OUTPUT
LOAD-1
LOAD-2
LOAD-3
NOTE:
• —— POWER CABLES
• ------ CONTROL CABLES
Chhattisgarh State Renewable Energy Development Agency
(Department of Energy, Govt. of Chhattisgarh)
CREDA
AC DISTRIBUTION PANEL (ACDB)
4KW (RURAL ELECTRIFICATION)

14.DRAWING OF POLE OF SOLAR HOME LIGHT SYSTEMS



END