



छत्तीसगढ़ राज्य ग्रामीण बैंक

(भारत सरकार, राज्य शासन एवं भारतीय स्टेट बैंक का संयुक्त उपक्रम)

CHHATTISGARH RAJYA GRAMIN BANK

(Joint Venture of Govt. of India, State Govt. & State Bank of India)

Ref. No. – CRGB/CO/Infra/Notice-2/2023-24

Dated 19.02.2024

Notice Inviting Tender

Chhattisgarh Rajya Gramin Bank invites Tenders from reputed Contractors/Vendors for **“Installation of 84 KW Solar Power System”** at Corporate Office building, Atal Nagar, Nava Raipur (CG). For details please visit Bank website www.cgbank.in or www.etender.sbi . Tenders must be downloaded from websites. The last date for submission of Tenders is 11.03.2024.

General Manager (IT, FI & Infra)



कॉर्पोरेट ऑफिस - प्लॉट नं. - 47, सेक्टर 24 अटल नगर, नवा रायपुर (छत्तीसगढ़) - 492018

Corporate Office - Plot No. - 47, Sector 24 Atal Nagar, Nava Raipur (C.G.) 492018

Phone No. - +91 0771 2288101 | Toll Free - 18002332300 | Email - cms.ho@cgbank.in | website - www.cgbank.in



TENDER FOR INSTALLATION OF 84KW (40KW ON PARKING AREA AND BALANCE ON ROOF TOP) SOLAR POWER SYSTEM FOR ENERGY CONSERVATION AT COPORATE OFFICE PLOT NO 47 SECTOR 24 IN ATAL NAGAR, NAYA RAIPUR, CHHATTISGARH STATE.

**CHHATTISGARH RAJYA GRAMIN BANK
CORPORATE OFFICE, CHHATTISGARH**

TECHNICAL BID

Ref No. CRGB/CO/Infra/N-2/2023-24

Dated 19/02/2024

CONSULTANTS:



3-6-134 FLAT NO 302 SVC-ROYAL DM APARTMENTS
STREET NO 18, HIMAYATNAGAR
HYDERABAD – 500 0029.
Tel. / Fax. : 040 -35561296.
E-mail: abhikramarchitects@gmail.com

Last date for submission of Sealed Tender: 14.00 Hrs. (IST) on 11/03/2024
Opening of Technical bids: 15:00 Hrs. (IST) on 11/03/2024

TO BE SUBMITTED TO:

THE GENERAL MANAGER (admin),
CHHATTISGARH RAJYA GRAMIN BANK,
CORPORATE OFFICE, PLOT NO 47
SECTOR 24 ATAL NAGAR NAYA RAIPUR
CHHATTISGARH.

Signature of contractor

CRGB HO RAIPUR

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ANNEXURE

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INSTRUCTIONS TO THE TENDERER

Signature of contractor

CRGB HO RAIPUR

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The CRGB reserves the right to accept or reject any or all the tenders without assigning any reason whatsoever.

M/S _____

Dear Sirs,

TENDER FOR INSTALLATION OF 84KW(40KW ON PARKING AREA AND BALANCE ON ROOF TOP) SOLAR POWER SYSTEM FOR ENERGY CONSERVATION AT COPORATE OFFICE PLOT NO 47 SECTOR 24 IN ATAL NAGAR, NAYA RAIPUR ,CHHATTISGARH STATE.

SEALED TENDERS ON ITEM RATE BASIS ARE INVITED IN TWO BID SYSTEM I.E., TECHNICAL BID PART1 AND PRICE BID PART 2 FOR TENDER FOR INSTALLATION OF 84KW (40KW ON PARKING AREA AND BALANCE ON ROOF TOP) SOLAR POWER SYSTEM FOR ENERGY CONSERVATION AT COPORATE OFFICE PLOT NO 47 SECTOR 24 IN ATAL NAGAR, NAYA RAIPUR ,CHHATTISGARH STATE.

1. Contract documents consist of **PART 1 Technical bid** Notice Inviting Tender, Form of Submission of tender General Notes, General Conditions of Contract, Special Conditions of Contract, Form Of Agreement, General Specifications of Materials Technical Specification, Schedule of Approximate Quantities and Rates, Abstract of General conditions of contract and Declaration, **PART 2 Price bid** General Specifications of Materials, Schedule of quantities of work (BOQ) ,Drawings of the various items of work to be done.
2. Tenders which should always be placed in Three envelopes, with the name of the project written on the envelopes will be received till **11/03/2024 up to 2:00pm Hrs** in the office of **CRGB, Corporate office, Plot No 47, Sector 24 Atal Nagar Naya Raipur, Chhattisgarh. Envelope-1: Superscribed as TECHNICAL BID** should consist of Cost of tender document, **Earnest money**, Notice Inviting Tender, , Form of Submission of tender ,General Notes, General Conditions of Contract, Special Conditions of Contract, Form Of Agreement, Technical Specifications, Schedule of Approximate Quantities and Rates ,Abstract of General conditions of contract and Declaration. **Envelope-2: Superscribed as PRICE BID** should consist of General Specifications of Materials , Schedule of quantities of work , Drawings of the various items of work to be done. **Envelope 3 Superscribed with Name of the Project** Should contain **Envelope 1** and **Envelope 2**. The Envelop -1 **TECHNICAL BID** will be opened on **11/03/2024 at 3:00pm Hrs**. The Envelop -2 **PRICE BID** of the qualified contractors shall be opened on a given day, the date and time and will be intimated separately.
3. The Contractors must quote in figures as well as in words. If any rates written in figures is different from the rate written in words, the rate mentioned in words will be considered.
4. The tender document must be filled in English and all the entries must be made by the hand and Written in ink. If any of the documents are missing or un-signed, the tender shall be considered invalid.
5. Earnest money amounting to **Rs :55,000.00 /- (RUPEES FIFTY FIVE THOUSAND ONLY)** is to be deposited with the tender in the form of Demand Draft in favor of **CRGB payable at Raipur**. otherwise the tender is liable for rejection.

PROVISIONS FOR MICRO & SMALL ENTERPRISES (MSES):- As per Government of India's Public Procurement Policy act 2012, certain benefits will be given for MSE Units. The details are as under:

Signature of contractor

CRGB HO RAIPUR





- A) The Public Procurement Policy shall apply to MSEs registered with District Industries Centers or Khadi Village Industries Commission or Khadi & Village Industries Board or Coir Board or National Small Industries Corporation or Directorate of Handicrafts & Handloom or any other body specified by Ministry of Micro, Small & Medium Enterprises.
- B) MSEs are exempted from paying Tender/RFP fee/cost, EMDs. For getting the benefits in case of MSE firms, shall submit relevant documents such as valid MSE registration Certificates and exemption certificate from relevant authorities. (Note for Relevant trade only)

NOTE: THE MSME CERTIFICATE OF RELAVANT TRADE ONLY WILL BE ACCEPTED OTHER WISE WILL BE SUMARILY REJECTED (Only for EMD.)

6. The successful tenderer will have to pay an amount of initial security deposit, which shall be 2.0% of the accepted value of the tender including the EMD, by means of D.D. in favour of the **CRGB payable at Raipur**. The initial security deposit is to be paid by the Contractor to CRGB within 7 days of intimation to him of the acceptance of the tender. The initial security deposit will be invested with the CRGB for the duration of the contract period and will be returned to the contractor without any interest, after issue of the virtual completion certificate. No interest is allowed on the retention money.

7. The acceptance of a tender will rest with the Competent Authority, who does not bind himself to accept the lowest tender, and reserves to himself the authority to reject any or all of the tenders received, without assigning any reasons. All tenders in which any of the prescribed conditions are not fulfilled, or are incomplete in any respect are liable to be rejected.

8. All compensation or other sums of money payable by the Contractor to Clients under the terms of this contract may be deducted from the security deposit, or from any sum that may be or may become due to the Contractor on any account whatsoever and in the event of the Security Deposit being reduced by reasons of any such deductions, the Contractor shall within 10 days of being asked to do make good in cash or by cheque any sum which have been deducted from his security deposit.

9. Tender containing any condition leading to unknown / indefinite liability, are liable to be summarily rejected.

10. If at all any rebate(s) is/are to be offered the tenderer shall first quote his rates strictly on the terms and conditions stipulated in tender document and then show separately rebate(s) offered specifying the conditions for such rebate(s). failure to follow this procedure will render the tender liable to summarily rejection.

11. Canvassing in connection with tenders is strictly prohibited and the tenders submitted by the contractors who resort to canvassing will be liable to rejection.

12. The tenderer should quote their (own) rates for undertaking the work.

13. Time is the essence of the contract. The work should be completed in **4 months** from the date of the work order issued to the contractor to commence the work. The successful Contractor will have to give CPM/PERT chart of various activities of works to be done so that the work gets completed within the stipulated time. The chart shall be submitted within 3 days from the date of acceptance of the tender.

14. Tenders for works shall remain open for acceptance for a period of **60 days** from the date of opening of tenders. If the tenderer withdraws his tender before the expiry of the said period or makes any modifications in terms and condition of the

Signature of contractor

CRGB HO RAIPUR

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tender which are not acceptable to the **CRGB**, then the **CRGB** without prejudice to any other right or remedy be at liberty to forfeit the earnest money.

15. It will be obligatory on the part of the tenderer to tender and sign the tender documents for all the component parts and that, after the work is awarded, he will have to enter into an agreement for each component with the competent authority in the **CRGB**

16. The tenderer should visit the site to ascertain the working conditions and local authority regulations / restrictions if any and other information required for the proper execution of the work.

17. The quantities of various items given in the schedule of quantities are approximate. The quantities of work may vary at time of allotment / execution of work. **CRGB** reserves the right to omit / delete any item(s) of work from the schedule at the time of allotment / before. Contractor will be paid for the actual work done at the site duly verified by the concerned official of the **CRGB**.

18. The unit price shall be deemed to be fixed price. In case of extra items, a record of labour charges paid shall be maintained and shall be presented regularly to **CRGB** for checking. The settlement will be made based on figures arrived at jointly and taking unit price given in the contract assigned to the successful Tenderer. In case of extra items where similar or comparable items are quoted in the tender, extra rates shall be based on tender rates.

19. If the rate quoted by the contractor for any item / items are not workable or abnormally lower than the market rate, the **CRGB** may demand Bank guarantee from the contractor for satisfactory completion of these work. The bank guarantee amount will be not less than 50% of the estimated amount of the items for which the rates are not workable or abnormally low. This bank guarantee will be released after completion of these works (unworkable and abnormally low rated items (below 25% of Estimated rate)) to the satisfaction of **CRGB**

20. No employee of the **CRGB** is allowed to work as a contractor for a period of 2 years of his/her retirement from **CRGB** Services without previous permission of the **CRGB**. This contract is liable to be cancelled, if either the contractor or any of his employee is any time to be such a person who had not obtained the permission of **CRGB** as aforesaid before submission of the tender or engagement in the contractor's service.

21. Sealed tenders in prescribed form in Three envelopes (**Envelope-1** superscribed as **TECHNICAL BID PART 1** should contain cost of tender document, Earnest Money in the form of DD, Notice Inviting Tender, Form of Submission of tender General Notes, General Conditions of Contract' Special Conditions of Contract, Form Of Agreement, Technical Specifications, Technical Schedule of Approximate Quantities and Rates, Abstract of General conditions of contract and Declaration. **Envelope 2** superscribed as **PRICE BID PART 2** should contain General Specifications of Materials, Schedule of quantities of work, Drawings of the various items of work to be done, and these two put in Another **Envelope 3** superscribed as Name of the project **TENDER FOR INSTALLATION OF 84KW(40KW ON PARKING AREA AND BALANCE ON ROOF TOP) SOLAR POWER SYSTEM FOR ENERGY CONSERVATION AT COPORATE OFFICE PLOT NO 47 SECTOR 24 IN ATAL NAGAR, NAYA RAIPUR ,CHHATTISGARH STATE**. are to be addressed and sent to General manager –I admin, **CRGB**, Corporate office, plot no 47,sector 24 Atal Nagar Naya,Raipur,Chhattisgarh.

22. Pre bid meeting shall be conducted to clarify all the technical queries regarding the tender on 01/03/2024 3.00 PM on site **CRGB** Corporate office PLOT NO 47 IN SECTOR 24 IN ATAL NAGAR, NAYA RAIPUR ,CHHATTISGARH STATE, besides PUNJAB NATIONAL BANK at 3.00 PM

23. No technical Clarifications shall be entertained after the Pre bid Meeting.

Signature of contractor

CRGB HO RAIPUR

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24.No Conditional Tenders shall be allowed, if any shall be summarily rejected.

25. Estimated Cost: **Rs.54,60,000.00** Plus GST as applicable.

General Manager (Admin),
CRGB, Corporate Office ,
Plot No 47, Sector 24
Atal Nagar
Naya Raipur Chhattisgarh.

ELIGIBILITY CRIETERIA

Signature of contractor

CRGB HO RAIPUR

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SECTION – 1

S.No	Criteria	Documents Required to be submitted.
1	The Contractor should have minimum of 07 (Seven) years' experience in the field as on 31.12.2023.	Copy of Registration of the Firm or Copy of incorporation At least one copy of the work order from the clients prior to 01.01.2017.
2	Bidder should have a minimum of Rs.16.38 Lakhs annual average turnover per year during last three financial years i.e. 2020-21, 2021-22, 2022-2023 from the related business.	Audited balance sheet and P&L account for years mentioned and certificate from the Chartered Accountant.
3	The Tenderer should have executed any of the following work in a single contract during the last Seven (7) years ending with 31.12.2023 for at least, One (1) similar work costing Rs.43.68 LAKHS (80% of Tender value) OR Two (2) similar works each costing Rs.27.30 LAKHS (50% of Tender value) OR. Three (3) similar works each costing Rs.21.84 LAKHS (40% of Tender value) Similar work means "INSTALLATION OF SOLAR POWER SYSTEM FOR ENERGY CONSERVATION, (DESIGN, MANUFACTURE, SUPPLY, ERECTION, TESTING AND COMMISSIONING INCLUDING WARRANTY, OPERATION & MAINTENANCE OF 83KWp GRID CONNECTED SOLAR ROOFTOP and Above Parking PHOTOVOLTAIC WITH NET METERING ARRANGEMENT) etc for Government, Nationalized banks, PSU's, Reputed Corporate companies, MNC's, IT companies.	Order copies and satisfactory completion certificates clearly indicating the cost & nature of work executed, date of commencement & completion issued by the Clients From Government, Nationalized banks, PSU's, Reputed Corporate companies, MNC's, IT companies.
4	The contractor must have valid GST registration, PAN number.	Mandatory to submit a Copy of the GST registration certificate and copy of the PAN card.
5	The bidder should not have been black-listed/ barred by any Public Sector Bank, RBI or IBA or any other Government/PSU agencies during last Seven years.	An undertaking in this regard is to be submitted to Bank by Bidder on Rs.500/- Stamp Paper. Bank has right to verify the same from concerned authorities/agencies.
6	The contractor should submit the Labour License .	Copy of the certificate of Central Labour License shall be Submitted by the successful tenderer .
7	Site Visit for the subject tender is mandatory. The Bidder shall visit the site and acquaint themselves of	For visiting the site, the Bidder shall contact the following officer:

Signature of contractor

CRGB HO RAIPUR

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	<p>the prevailing local conditions before submitting their bid. Tenderers have to enclose a certificate issued by the General Manager, Administration of CRGB at site for having visited the site or else the offer may be liable for rejection.</p>	<p>Senior Manager, GAD, CRGB, Corporate Office , Plot No 47, Sector 24 Atal Nagar, Naya Raipur Chhattisgarh. Phone:- +91 771 2288130 +91 771 2288127 +91 771 2288157 +91 7974052311</p>

NOTE : 1. The work will be supervised by the Project Architect and Consultant Engineer of the Bank.

2. The Contractor has to work in the Premises of an office which is functional and no in convenience to be created for effective functioning of office during office hours and the office staff. The Contractor should make necessary arrangements for this.

Signature of Contractor

Signature of contractor

CRGB HO RAIPUR



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SECTION – 2

FINANCIAL DETAILS

ANNUAL TURNOVERS FOR THE LAST THREE YEARS

S.No.	Year	Turnover from Similar works (in lakhs)	Turnover from all other sources (in lakhs)	Remarks
1				
2				
3				

1. List your sources of finance

- Own resources _____
- Bank credit _____
- Other sources specifies if any? _____

2. Name and address of Bank from whom reference can be obtained.

Name : _____

Address : _____

Phone: _____

Note :

1. Please attach certified/attested copies of the latest IT and/or Profit and Loss account statement to support the information furnished, failing which your firms will be summarily rejected.
2. Please attach certified Certificate of financial Soundness by Bank.

Signature of Contractor

Signature of contractor

CRGB HO RAIPUR

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SECTION – 3

EXPERIENCE PROFILE

<u>DETAILS OF SIMILAR WORKS COMPLETED IN LAST SEVEN YEARS</u>									
S.No.	Description of the work	Name and address of the Employer	Contract No. and date.	Date of award of work	Stipulated date of completion	Actual date of completion	Value of completed work (in lakhs)	Reasons for delay	Penalty if any
SIMILAR WORKS									
1									
2									
3									
4									

Note:

1. Tenderer must attach copies of the certificates issued by the Client.
2. Only those works shall be considered for evaluation for which copies of the certificates issued by the client are attached

Relevant certificates of having completed similar works issued by competent authority must be enclosed failing which your tender will be summarily rejected.

Signature of Contractor

Signature of contractor

CRGB HO RAIPUR





S.No.	Description of the work	Name and address of the Employer	Contract No. and date.	Date of award of work	Stipulated date of completion	Actual date of completion	Value of completed work (in lakhs)	Reasons for delay	Penalty if any
OTHER WORKS									
1									
2									
3									

Note:

1. Tenderer must attach copies of the certificates issued by the Client.

2. Only those works shall be considered for evaluation for which copies of the certificates issued by the client are attached

DETAILS OF OTHER WORKS COMPLETED IN LAST SEVEN YEARS

Relevant certificates of having completed similar works issued by competent authority must be enclosed failing which your tender will be summarily rejected.

Signature of Contractor

Signature of contractor

CRGB HO RAIPUR





SECTION - 4

RESOURCES PERSONNEL

**DETAILS OF SKILLED AND TRAINED MANPOWER INCLUDING ENGINEERS AND TECHNICAL STAFF
PRESENTLY EMPLOYED**

S.No.	Name	Qualification	Designation	Total Experience (in years)	Remarks
1					
2					
3					
4					
5					
6					
7					
8					
9					
10					

Signature of Contractor

Signature of contractor

CRGB HO RAIPUR





DETAILS OF ENGINEERS AND TECHNICAL STAFF PROPOSED TO BE DEPLOYED ON THE PROJECT ALONGWITH BIO-DATA OF KEY PERSONNEL

S.No.	Name	Qualification	Designation	Total Experience (in years)	Remarks
1					
2					
3					
4					
5					
6					
7					
8					
9					
10					

Note :

Tenderers are also required to attach the complete organization chart of the Engineering and Technical Staff proposed to be deployed on the project.

Signature of Contractor

Signature of contractor

CRGB HO RAIPUR



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SECTION – 5

RESOURCES PLANT & EQUIPMENT

DETAILS OF TOOLS, PLANT AND MACHINERY (IN WORKING CONDITIONS)
OWNED BY THE TENDERER

S.No	Description	Make	Model & Year of Manufacture	Capacity	Condition	Nos. Available	Any other relevant information	Remarks
1								
2								
3								
4								

Note :

Signature of Contractor

Signature of contractor

CRGB HO RAIPUR

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DETAILS OF TESTING, MEASURING AND INSPECTION EQUIPMENT AND FACILITIES FOR CALIBRATION OWNED

S.No	Description	Make	Model & Year of Manufacture	Capacity	Condition	Nos. Available	Any other relevant information	Remarks
1								
2								
3								
4								

Note :

Signature of Contractor

Signature of contractor

CRGB HO RAIPUR

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DETAILS OF SAFETY APPLIANCES AND EQUIPMENT OWNED

S.No	Description	Make	Model & Year of Manufacture	Capacity	Condition	Nos. Proposed to be deployed	Any other relevant information	Remarks
1								
2								
3								
4								

Note :

Signature of Contractor

Signature of contractor

CRGB HO RAIPUR





SECTION – 6

DETAILS OF ON GOING WORKS

S.No.	Description of the work	Name and address of the Employer	Contract No. and date.	Date of award of work	Stipulated date of completion	Value of work as per order (in lakhs)	Value of work completed so far (in lakhs)	Remarks
1								
2								
3								
4								
5								

Note :

1. Please attach copies of the certificates issued by the Client.
2. Only those works shall be considered for evaluation for which copies of the certificates issued by the client are attached

Signature of contractor

CRGB HO RAIPUR





SECTION – 7

DOCUMENTS TO BE ATTACHED WITH THE TENDER BY THE TENDERER

1. Details of all works and similar works completed in last Seven years.
2. Annual Turnover for the last three years with supporting documents.
3. Registration of Company.
4. Partnership deed/Memorandum and Articles of Association of the firm.
5. Registration under Labour Laws.
6. GST Registration Certificate.
7. Details of Skilled and Trained Manpower including Engineers and Technical staff presently employed.
8. Details of Tools, Plants and Machinery (in working conditions) owned.
9. Details of Testing, Measuring and Inspection Equipment and facilities for calibration owned.
10. Details of Safety Appliances and Equipment owned
11. ISO 9000 certificate (if any).
13. **General Service tax registration certificate to be enclosed COMPULSORY**
14. Original Power of Attorney of the person signing the tender documents or photocopy duly attested by Notary Public.
15. Details of on-going works & supporting Documents.
16. Details of Plants and Machinery proposed to be deployed on the project.
17. Details of Engineers and Technical staff proposed to be deployed on the project along with organization chart and bio-data of key personnel.
18. Programme for execution of works.
19. Month wise Cash flow requirements.

Signature of Contractor

Signature of contractor

CRGB HO RAIPUR





LETTER OF TRANSMITAL

TO
THE GENERAL MANAGER (admin)
CHHATTISGARH RAJYA GRAMIN BANK,
CORPORATE OFFICE,
Plot No 47, Sector 24
Naya Raipur, Chhattisgarh,
Pin .492013.

Sir,
SUB: TENDER FOR INSTALLATION OF 84KW(40KW ON PARKING AREA AND BALANCE ON ROOF TOP) SOLAR POWER SYSTEM FOR ENERGY CONSERVATION AT COPORATE OFFICE PLOT NO 47 SECTOR 24 IN ATAL NAGAR, NAYA RAIPUR ,CHHATTISGARH STATE.

Having examined the details given in invitation and technical note for the work **TENDER FOR INSTALLATION OF 84KW(40KW ON PARKING AREA AND BALANCE ON ROOF TOP) SOLAR POWER SYSTEM FOR ENERGY CONSERVATION AT COPORATE OFFICE PLOT NO 47 SECTOR 24 IN ATAL NAGAR, NAYA RAIPUR ,CHHATTISGARH STATE.**

hereby submit the Technical information and relevant documents

1. We hereby certify that all the statements made as information supplied in the enclosed forms and Annexure are true and correct.

2. We have furnished all information and details necessary as per check list for pre-qualification and have no further pertinent information to supply.

3. We submit the following certificates in support of our suitability, technical Knowledge, Capability for having successfully completed the following works.

Name of the work

Client / Owner

1.

2.

3.

Enclosures:

Signature of the tenderer

Seal of Tenderer

Date of Submission

Signature of Contract

Signature of contractor

CRGB HO RAIPUR

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FORM OF SUBMISSION OF TENDER

TO
THE GENERAL MANAGER (admin)
CHHATTISGARH RAJYA GRAMIN BANK,
CORPORATE OFFICE,
Plot No 47, Sector 24
Naya Raipur, Chhattisgarh,
Pin .492013.

Dear Sir/s,

Ref: TENDER FOR INSTALLATION OF 84KW(40KW ON PARKING AREA AND BALANCE ON ROOF TOP) SOLAR POWER SYSTEM FOR ENERGY CONSERVATION AT COPORATE OFFICE PLOT NO 47 SECTOR 24 IN ATAL NAGAR, NAYA RAIPUR ,CHHATTISGARH STATE.

I / We the undersigned have carefully gone through and clearly understood, after visiting the site, Contract documents consist of **PART 1** Notice Inviting Tender, Form of Submission of tender General Notes, General Conditions of Contract' Special Conditions of Contract, Form Of Agreement, Technical Specifications, Schedule of Approximate Quantities and Rates, Abstract of General conditions of contract and Declaration **PART 2** General Specifications of Materials , price Schedule of Probable Quantities Tender Drawings prepared by your Architects **M/s.abhikram-S, 3-6-134, Flat no.302, SVC-ROYAL DM Apartments, street no.18, Himayatnagar Hyderabad 500029**

I / we do here by undertaken to execute and complete the whole or part of the work (as desired by you) at the respective rates quoted.

I / We are depositing as earnest of money sum of **Rs.55,000 /- (RUPEES FIFTY FIVE THOUSAND ONLY)** by demand draft in favour of **CRGB ,payable at Raipur, Chhattisgarh** along with this tender for due execution of the work at my / our tendered rates together with any variations which shall be adjusted at prices based by the Architects / Employer on our tendered rates.

In the event of this Tender being accepted I / we agree to enter into an agreement as and when required and executed the contract according to your form of Agreement, in default whereof, I / we do hereby bind my-self / ourselves to forfeit the aforesaid deposit.

I / we further agree to complete the work included in the said schedule of quantities within ____ days from the date of the work order issued to commence the same.

Date of commencement shall be either one-week, from the date, the acceptance letter is issued to the contractor or day on which the contractor is instructed to take possession of site whichever is latter.

I / we agree not to employ sub-contractors other than those that may be approved by Architects / Employer.

I / We agree to pay Government, General and Sales Tax (State and Central), Excise and Octroi duties, service tax , insurance and all other taxes including works contract extra, turnover tax, VAT etc as prevailing foretime to time, on such items for whom same is to be levies, and the rates quoted by me / us are inclusive of the same.

Signature of contractor

CRGB HO RAIPUR





Yours Faithfully,

Contractor's Signature_____

Designation _____

Address_____

1.

2.

3.

Signature of contractor

CRGB HO RAIPUR

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GENERAL NOTES

1. PROCEDURE OF FILLING AND SUBMISSION OF TENDER

i) The tenderers should quote their rates in figures and words where the quantities have been indicated in the relevant items of the schedule of quantities, failures to do so may invalidate the tender. Erasing or over writing shall not be allowed. Corrections in the tender should be avoided if this becomes unavoidable, the entire rate (and not a portion only) shall be scored out and signed (not simply initiated) by the tenderer as token of such cancellation. A fresh rate in specified manner shall then be correctly written.

ii) In the event of the tender being submitted by a firm, it must be signed by a member or members of the firm having legal authority to do so, and if called for, the legal documents in support thereof must be produced for inspection and the same in the case of the firm carried out by one member of a joint family. It must disclose, that the firm is duly registered under the India Partnership Act. Any tender signed by a member not holding a power of attorney shall be treated as informal.

iii) All corrections are to be initiated.

iv) The tenderer is to quote this rate in ink both in words and figures in English. In case of any variation, the rates quoted in the words in the "Original" copy of the tender shall only be valid. The tender shall be clearly and legibly written and whole writing must be by the hand of the person signing the tender and with the same pen and ink. Failure to do so may invalidate the tender.

The employer reserves to itself the right to accept the lowest or any tender or split up and distribute any items of work to any specialist firm or firms without assigning any reason. The employer reserves the right to split up and distribute the work to more than one tenderer, if necessary. Person tendering shall submit and return together with his tender, this condition of contract, specifications and the priced schedule of quantities and all set of papers signed on all the pages in a sealed cover. Signature will be deemed to be the acceptance of the contents of these tender papers by the tenderer. All enclosures to the tender shall be in duplicate.

Tenderer shall note that their tenders shall remain open for acceptance for a minimum period of 2 months from the date of opening the tenders. The tender must be unconditional. Conditional tenders may be summarily rejected.

Submission of tenders:

The tenders are to be submitted along with the copy of "General Clause of Contract and Technical Specifications" duly signed by the tenderer in a sealed cover at the office as mentioned in the tender notice. The authorized representatives of tenderer are present during opening of the tender.

2. RATES TO INCLUDE:

While quoting their rates the tenderer should include the following if otherwise not stated herein before.

- Necessary cost of taking samples of materials supplied by them for construction including cement and steel, wood/tiles etc., testing of the same at Govt.'s / approved laboratory including transportation, cost of the samples, as and when required.
- Submission of test reports of other materials as may be specified by Architects / PMC

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3. STORAGE OF MATERIALS:

As The work has to be executed in the Premises of an office which is functional and no in convenience to be created for effective functioning of office during office hours. The Contractor should make his own necessary arrangements for Shelter or stay for the labourers like Labour hutment, material, machinery Etc., out side of the premises at his own expense and responsibility.

4. LABOUR HUTMENT:

As The work has to be executed in the Premises of an office which is functional and no in convenience to be created for effective functioning of office during office hours. The Contractor should make his own necessary arrangements for Shelter or stay for the labourers like Labour hutment, material, machinery Etc., out side of the premises at his own expense and responsibility.

5.IDLE LABOUR:

In case the construction work is held up for any site conditions not attributable to the contractors or for any decisions instructions / want of details from Employer / Architects or for any of the conditions as per Article 30, the contractor shall be allowed reasonable extension of time by the employer but any claim for idle labour shall lie under the above conditions. Contractor's quoted rates should include for all such contingencies.

6. The contractor shall engage one competent person at site who shall take the instructions from the Architects. The work should not suffer due to lack of supervision, manpower and materials.

9. The contractor is required to fabricate a sample where required, or any item so installed for approved. Any changes made by the Architect's / Employers, in the sample to the specifications as mentioned in the tender, shall not be deducted or paid extra. The bulk production of the furniture can only be taken up after the final approval of the sample of the item.

10. The partitions shall be so fixed that all joinery work is in plumb and true in line. The partition frame shall be firmly fixed to the floor and ceiling by using suitable wall plugs and screws.

11. The contractor shall check all dimensions before fabricating and fixing the partitions or ceiling in position at site.

12. All measurements given in the schedule hereunder are for the purpose of tender only. Payment will be made on actual measurement of the work done.

Signature of contractor

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GENERAL CONDITIONS OF CONTRACT

Except where provided for in the description of the individual items in the schedule of quantities and in the specifications and conditions laid down hereinafter and in the drawings, the work shall be carried out as per standard specifications and under the direction of Employer / Architect.

1. INTERPRETATION

In constructing these conditions, the specifications, the schedule of quantities, tender and agreement, the following words shall have the meaning herein assigned to them except where the subject or context otherwise requires.

I. Employer: The term employer shall denote **CRGB** with their Corporate Office Plot No 47, sector 24 ,Atal Nagar,Naya Raipur,Chhattisgarh and any of its employees representative authorized on their behalf.

II. Architects / PMC Consultants: The term Architects shall mean **M/s. abhikram-s**,

III. Contractor: The term contractor shall mean _____ (Name and address of the contractor) and his / their heirs, legal representatives, assigns & successors.

IV. Site: The site shall mean the site where the works are to be executed as shown within boundary in red border on the site plan including any building and erection thereon, allotted by the employer for the contractors use.

V. Site Supervision: Supervision by the Architect .

VI. Drawings: The work is to be carried out in accordance with drawings, specifications, the schedule of quantities and any further drawings, which may be supplied, or any other instruction, which may be given by the Employer during the execution of the work.

All drawings relating to work given to the contractor together with a copy of schedule of quantities are to be kept at site and the Employer / Architects shall be given access to such drawings or schedule of quantities wherever necessary.

In case any detailed Drawings are necessary contractor shall prepare such detailed drawings and / or dimensional sketches therefore and have it confirmed by the Employer / Architects as case may be prior to taking up such work.

The contractor shall ask in writing for all clarifications on matters occurring anywhere in drawings, specifications and schedule of quantities or to additional instructions at least 10 days ahead from the time when it is required for implementation so that the Employer may be able to give decision thereon.

VII. "The Works" shall mean the work or works to be executed or done under this contract.

VIII. "Act Of Insolvency" shall mean any act as such as defined by the Presidency Towns Insolvency Act or in Provincial Insolvency act or any amending status.

IX. "The Schedule Of Quantities" shall mean the schedule of quantities as specified and forming part of this contract.

Signature of contractor

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X. **"Priced Schedule Of Quantities"** shall mean the schedule of quantities duly priced with the accepted quoted rates of the contractor.

XI. **"Contract"** shall mean Contract documents consist of Notice Inviting Tender, Eligibility criteria Form of Submission of tender General Notes, General Conditions of Contract' Special Conditions of Contract, Form Of Agreement, Technical Specifications, Schedule of Approximate Quantities and Rates General Specifications of Materials , Abstract of General conditions of contract and Declaration the schedule of quantities, specifications and drawings attached here to and duly signed.

XII. **'Contract Price'** shall mean the sum named in the Tender subject to such additions thereto or deductions their from as may be made under the provisions hereafter contained.

XIII. **'Notice in Writing'** or written notice shall mean a notice in writing, type or printed characters sent (unless delivered personally or otherwise provided to have been received) by registered post to the last known private or business address or registered office of the addressee and shall be deemed to have been received when in the ordinary course of post it would have been delivered.

XIV. **'Net Prices'** any arriving at the Contract amount the Contractor shall have added to or deducted from the total of the items if the Tender any sum, either as a percentage or otherwise, then the net price of any item in the tender shall be the sum arrived at by adding to or deducting from the actual figure appearing in the tender as the price of that item a similar percentage or proportionate sum. Providing always that in determining the percentage or proportion of the sum so added or deducted by the contractor, the total amount of any Prime Cost items and provisional sums of money shall be deducted from the total amount of the Tender. The expression 'net rates' or 'net prices' when used with reference to the contract or account shall be hold to mean rates or prices so arrived at.

XV. **'Virtual Completion'** shall mean the building is in the opinion of the Architect and Employer fit for occupation.

XVI. Words importing persons include firms and corporations. Words importing the singular only, also include the plural and vice verse where the Context requires.

2. SCOPE OF CONTRACT

The Contractor shall carry out and complete the said work in every respect in accordance with this Contract and with the directions of and to the satisfaction of the Architect and Employer. The Architect with approval of Employer issue further drawings and / or written instructions, details directions and explanations which hereafter collectively referred to as 'Architect's Instructions'. In regard to:

- a) The variation or modification of the design quality or quantity of works or the addition or omission or substitution of any work.
- b) Any discrepancy in the drawings or between the schedule of quantities and / or drawings and / or specification.
- c) The removal from the site of any defective material brought thereon by the contractor and the substitution of any other material thereof.
- d) The demolition removal and / or re-execution of any work executed by the contractor/s.
- e) The dismissal from the work of any persons employed there upon.

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- f) The opening up for inspection of any work covered up.
- g) The rectification and making good of any defects under clauses hereinafter mentioned and those arising during the maintenance period (Defect Liability Period).

The contractor shall forthwith comply with and duly execute any work comprised in such Employer's or his agent / Architect's instructions, provided always that verbal instructions, directions and explanations given to the contractor's or his representative upon the works by the Employer's or his agent / Architects shall, if involving a variation, be confirmed in writing to the contractor/s within seven days. No works for which rates are not specifically mentioned in the priced schedule of quantities, shall be taken up without written permission of the Employer or his agent / Architects. The employer in consultation with the Architects as provided in clause "variation" shall fix rates of items not mentioned in the priced schedule of quantities.

Regarding all factory made products for which ISI marked products are available, only products bearing ISI marking shall be used in the work.

3. TENDERS SHALL VISIT THE SITE

Intending tenderer shall visit the site and make himself thoroughly acquainted with the local site condition, nature and requirements of the works, facilities of transport conditions, effective labour and materials, access and storage for materials and removal of rubbish. The tenderer shall provide in their tender for cost of carriage, freight and other charges as also for any special difficulties and including police restriction for transport etc., for proper execution of work as indicated in the drawings. The successful tenderer will not be entitled to any claim of compensation for difficulties faced or losses incurred on account of any site condition which existed before the commencement of the work or which in the opinion of the employer or his agent / Architect might be deemed to have reasonably been inferred to be so existing before commencement of work.

4. TENDERS

The entire set of tender paper issued to the tenderer should be submitted fully priced and also signed on the last page together with initials on every page. Initial / signature will indicate the acceptance of the tender papers by the tenderer.

(Also see general rules and instructions for the guidance of Tenderers)

The schedule of quantities shall be filled in as follows:

Amount column to be filled in for each item and the amount for each sub head as detailed in the "Schedule Of Quantities".

The Employer reserves the right to reject the lowest or any tender and also to discharge any or all of the tenders of each section or to split up and distribute any item of work to any specialist firm or firms, without assigning reasons.

The tenderers should note that the tender is strictly on the item rate basis and their attention is drawn to the fact that the rates for each and every item should be correct, workable and self-supporting. If called upon by the

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Employer / Architects detailed analysis of any or all the rates shall be submitted. The Employer / Architects shall not be bound to recognize the contractor's analysis. All corrections are to be initialed.

The works will be paid for as "measured work" on the basis of actual work done and not as "lumpsum" contract, unless otherwise specified.

All items of work described in the schedule of quantities are to be deemed and paid as complete works in all respects and details including preparatory and finishing works involved, directly related to and reasonably detectable from the drawings, specifications and schedule of quantities and no further extra charges will be allowed in this connection. In the case of lumpsum charges in the tender in respect of any items of work will be made for the actual work done on the basis of lumpsum charges as will be assessed to be payable by the Employer / Architects.

The employer has power to add to, omit from any work as shown in drawings or described in specifications or include in schedule of quantities and intimate the same in writing but no addition, omission or variation shall be made by the contractor without authorization from the Employer. No variation shall vitiate the contract.

The tenderer shall note that his tender shall remain open for consideration for a period of three months from the date of opening of the tender.

5. AGREEMENT

The successful contractor will be required to sign agreement in accordance with the draft agreement from enclosed and the schedule conditions. The contractor shall pay for all stamps and legal expenses, incidental thereto. However the written acceptance by the employer of a tender will constitute a binding contract between the employer and the person so tendering whether such formal agreement is or is not subsequently executed.

6. AUTHORITIES, NOTICES, PATENT RIGHTS AND ROYALTIES:

The Contractor shall confirm to the provisions of the statutes relating to the works, and so to the regulation and bylaws of an local authority, and of any water, lighting and other companies on authorities with whose systems the structures are proposed to be connected and shall before making any variation from the drawings or specifications, that may be necessitated by so conforming given to the Architect's written notice, specifying the variations proposed to be made and the reason for making it apply for instruction thereon. In case, the Contractor shall not within the 10 days receive such instruction, he shall proceed with the work conforming to the provisions, regulations or bylaws in questions.

The Contractor shall bring to the attention of the Architect all notices required by the said acts, regulations or bylaws to be given to any Authority, and pay to such authority or to any Public Officer all fees that may be properly chargeable in respect of the works, and lodge the receipts with the Architect /Employer.

The Contractor shall identify the Employer against all claims in respect of patent rights, designs, trade marks or name or the protected rights in respect of any constructional plant, machine, work or material used for or in

connection with the works or temporary works and from and against all claims, demands, proceedings, damages, costs, charges, and expenses whatsoever in respect thereof or in relation thereto. The Contractor shall defend all actions arising from such claims, unless he has informed the Architects, before any such infringement and received their permission to proceed and shall himself pay all royalties, license fees, damages, coat and charges of all and every sort that may be legally incurred in respect thereof.

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7. NOTICES AND STATUTORY REGULATIONS:

The contractor shall give all notices and pay all fees and shall comply all Acts and Regulations for the successful completion of the contract works. The whole of the work is to be complied with as per the requirements and bylaws of the relevant statutory authorities including contract labour (Regulation and Abolition) Act 1970.

8. QUANTITY OF WORK TO BE EXECUTED

The Schedule of Quantities unless otherwise stated shall be deemed to have been prepared in accordance with the Standard Procedure of the Architects shall be considered to be approximate and no liability shall attach to the Architect for any error may be discovered therein. The Employer reserves the right to execute only a part or the whole or any excess thereof without assigning any reason therefore.

The Contractor shall be deemed to have satisfied himself before tendering to the correctness and sufficiency of his tender for the works and of the prices stated in the Schedule of Quantities and / or the Schedule of Rates and Prices, which rates and prices shall cover all things necessary for the completion of the works.

9. OTHER PERSONS ENGAGED BY THE EMPLOYER

The Employer reserves the right to execute any part of the work included in this contract or any work, which is not included in this contract by the other Agency, or persons and contractor shall allow all reasonable facilities and use of his scaffoldings for the execution of such work. The main contractor shall extend all cooperation in his regard.

10. EARNEST MONEY AND SECURITY DEPOSITS

The tenderer will have to deposit an amount of **RS. 55,000.00 (RUPEES FIFTY FIVE THOUSAND ONLY)** in the form of **Demand draft drawn in favour of CRGB PAYABLE AT RAIPUR**, at the time of submission of tender as an Earnest money. The employer is not liable to pay any interest on the earnest money. The Earnest money of the unsuccessful tenderers will be refunded without any interest soon after the decision to award the work is taken after the expiry of the validity period of the tender. The successful tender to whom the contract is awarded will have to deposit as initial security deposit a further sum to make up 2.0 % of the value of the accepted tender including the Earnest Money. The initial security deposit will have to be made within 14 days from the date of acceptance of tender, failing which the employer at his discretion may revoke the letter of acceptance and forfeit the earnest money deposit furnished along with the tender. Apart from the initial security deposit made as above, retention money shall be deducted from progressive running bills @ 8% of the gross value of each running bill until the total security deposit, i.e., the initial security deposit plus the retention money equals to (Total Security Deposit EMD (2.0 %) + FSD 5.0 %)

50% of the above security deposit will be refunded on completion of the work and after issue of virtual completion . The balance 50% will be refunded after defects liability period of 1year from the date of virtual completion subject to no defects/ defects are rectified.

Apart from defective work replacement the efficiency of the Solar system installed will be assessed based on the generation at the rate of 4 to 4.5 Units per 1Kw per day. The balance 50% Retention money will be refunded after 1 year from the date of installation and commissioning based on the norm of Generation of 4 to 4.5 Units per 1Kw per day.

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11. CONTRACTOR TO PROVIDE EVERYTHING NECESSARY

The Contractor shall provide everything necessary for the proper execution of the work according to the intent and meaning of the drawings, schedule of quantities and specifications taken together whether the same may

or may not be particularly shown or described therein provide that the same can reasonably be inferred there from and if the contractor finds any discrepancies therein he shall immediately and in writing, refer the same to the Employer / Architects whose decision shall be final and binding.

12. TIME OF COMPLETION, EXTENSION OF TIME & PROGRESS CHART

The Contractor shall be allowed admittance to the site on the 'Date of Commencement' stated in the Appendix, and he shall thereupon and forthwith begin the works and shall regularly proceed with to complete the same (except such painting or other decorative work as the Architect may desire to delay). On or before the 'Day of Completion' stated in the Appendix subject nevertheless the provision for the extension of time hereinafter contained.

If in the opinion of the Architect the works be delayed:

- a) By force major or
- b) By reason of any exceptionally inclement weather or
- c) By reason of proceedings taken or threatened by or dispute with adjoining or neighboring owners of public authorities arising, than through the Contractor's won default or
- d) By the works or delays of the contractors tradesmen engaged or nominated by the Employer / Architect and not referred in the Schedule of Quantities and / or specifications or
- e) By reason of civil, commotion, local combination of workmen or strike or lock-out effecting any of the buildings traders or
- f) By reason of the Architect's instructions as per clause 2, or
- g) In consequence of the Contractor not having in due time, necessary instructions from the Architect for which he shall have specifically applied in writing ahead of time, giving the Architect reasonable time to prepare such instructions, the Architects shall make a fair and reasonable extension of time for completion of the Contract works. In case of such strike or lock-out, the Contractor shall as soon as possible, give written notice thereof the Architect, but the Contractor shall nevertheless constantly use his endeavors to prevent delay and shall do all they may reasonably be required, to the satisfaction of the Architect to proceed with the work. The Contractor on starting the works shall furnish to the Employer / Architect a PERT / CPM Programme for carrying out the work stage in the stipulated time fore the approval of Architect / Employer and follow strictly the approved time schedule incorporating charges if any, to ensure the completion of the work in stipulated time. A graph or chart on individual work shall be maintained showing the proportionate progress of work week by week by Architect a weekly progress report stating the number of skilled and un skilled laborers employed on the work, working hours done, place, type, and quantity of work done during the period.

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The Contractor must inform the Architect within 10 days in advance of all drawings and detailed required by him from time to time. The Contractor shall Adhere to the approved program and arrange for the materials and labour etc accordingly. Despite repeated instructions, if the Contractor fails to show proportionate progress of the work, the Architect / Employer may take suitable action and deemed fit without prejudice to any terms and conditions of the contract.

13. LIQUIDATED DAMAGES

Should the work be not completed to the satisfaction of the Employer / Architects within the stipulated period, the contractor shall be bound to pay to the Employer a sum calculated as given below by way of liquidated damages and not as penalty during which the work remains uncompleted or unfinished after the expiry of the completion date. If the contractor fails to complete the work by the Scheduled date of completion or within any sanctioned extended time, he will have to pay liquidated damages at 0.5% of contract amount for each week beyond the date that the work remains incomplete subject to maximum of 5% of the contract value (without extra items).

14. NOTICE AND PATENTS OF APPROPRIATE AUTHORITY AND OWNERS

The contractor shall conform to the provisions of any Acts of the Legislature relating to the work, and to the Regulations and Bye-Laws of any authorities, and / or any water, lighting and other companies, and / or authorities with whose systems the structures were proposed to have connection and shall before making any variations from the drawings or specifications that may be associated to so conform, give the Employer / Architects written notices specifying the variations proposed to be made and reasons for making them and apply for instruction thereon. The Employer / Architects written notices specifying the variations proposed to be made and reasons for making them and apply for instruction thereon. The Employer / Architects on receipt of such intimation shall give a decision within a reasonable time.

The contractor/s shall arrange to give all notices required for by the said Acts, Regulations or Bye-laws to be given to any authority, and to pay to such authority or to any public officer all fees that may be properly chargeable in respect of the work and lodge the receipts with the Employer.

The contractor shall indemnify the Employer against all claims in respect of patent rights, royalties, damages to buildings, roads or members of public in course of execution of work and shall defend all actions arising from such claims and shall keep the Employer saved harmless and indemnified in all respects from such actions, costs and expenses.

16. REMOVAL OF IMPROPER WORK

The Employer shall during the progress of the work have power to order in writing from time to time the removal from the work within such reasonable time or times as may be specified in the order of any materials which in the opinion of the Employer / Architects are not in accordance with specification or instructions, the substitution or proper re-execution of any work executed with materials or workmanship not in accordance with the drawings and specifications or instructions. In case the contractor refuses to comply with the order the Employer shall have the power to employ and pay other agencies to carry out the work and all expenses consequent thereon or incidental thereto as certified by the Employer / Architects shall be borne by the contractor or may be deducted from any money due to or that may become due to the contractor. No certificate, which may be given by the Architects, shall relieve the contractor from his liability in respect of unsound work or bad materials.

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17. SITE SUPERVISION



The Architect may appoint a Site supervisor or clerk of works who shall be representative of the Architect. The duties of the supervisor representative are to watch and supervise the works and to test any materials to be used of workmanship employed in connection with the works. He shall have no authority either to relieve the Contractor of any of his duties or obligations under the Contract, or except those expressly provided hereunder, to order any work involving delay or any extra payment by the Employer or any variation of or in the works.

The contractor shall afford the Employer's representative every facility and assistance for examining the works and materials and checking the measuring time and materials. Neither the Employer's representative nor any assistant to the Architect shall have power to revoke, alter enlarge or relax the requirements of this Contract, or to Sanction any day-work, additions, alterations, deviations or omissions unless such an authority may be specially conferred by a written order of the Architect / Employer.

The Employer's Representative shall have to give notice to the Contractor or his foremen about the non-approval of any work or materials and such works shall be suspended or the use of such material should be discontinued until the decision of the Architect is obtained, the work will from time to time be examined by the Architect or the Employer's representative but such examinations shall not in any way exonerate the Contractor from the obligation to remedy defects which may be found to exist at any stage of the work of after the same is completed. Subject to the limitations of this cause, the Contractor shall take instruction from the Architect / Employer.

18. CONTRACTOR'S EMPLOYEES

The Contractor shall employ technically qualified and competent supervisors for the work who shall be available (by turn) throughout the working hours to receive and comply with instructions of the Employer / Architects. The contractor shall engage at least one experienced Engineer as site-in-charge for execution of the work. The contractor shall employ in connection with the work persons having the appropriate skill or ability to perform their job efficiently.

The contractor shall employ local labourers on the work as far as possible. No labourer below the age of sixteen years and who is not an Indian National shall be employed on the work.

Any labourer supplied by the contractor to be engaged on the work on day work basis either wholly or partly under the direct order or control of the Employer or his representative shall be deemed to be a person employed by the contractor.

The contractor shall comply with the provisions of all central labour legislation including the requirements of

- a) The payment of Wages Act.
- b) Employer's Liability Act.
- c) Workmen's Compensation Act.
- d) Contract Labour (Regulation & Abolition) Act. 1970 and Central Rules 1971
- e) Apprentices Act 1961
- f) Minimum Wages Act
- g) Any other Act or enactment relating thereto and rules framed there under from time to time.

The contractor shall keep the Employer saved harmless an indemnified against claims if any of the workmen and all costs and expenses as may be incurred by the Employer in connection with any claim that may be made by any workmen.

The contractor shall comply at his own cost with the order for requirement of any Health Officer of the State or any local authority or of the Employer regarding the maintenance of proper environmental sanitation of the area where the contractor's labourers are housed or accommodated, for the prevention of small pox, cholera, plague, typhoid, malaria and

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other contagious diseases. The contractor shall provide, maintain and keep in good sanitary condition adequate sanitary accommodation and provide facilities for pure drinking water at all times for the use of men engaged on the works and shall remove and clear away the same on completion of the works. Adequate precautions shall be taken by the contractor to prevent nuisance of any kind on the works or the lands adjoining the same.

The contractor shall arrange to provide first aid treatment to the labourers engaged on the works. He shall within 24 hours of the occurrence of any accident at or about the site or in connection with execution of the works report such accident to the Employer and also to the competent Authority where such report is required by law

.19. DISMISSAL OF WORKMEN

The contractor shall on the request of the Employer immediately dismiss from works any person employed thereon by him, who in the opinion of the Employer be unsuitable or incompetent or who may misconduct him.

Such discharges shall not be the basis of any claim for compensation or damages against the Employer or any of their officer or employee.

20. ASSIGNMENT

The whole of the works included in the contract shall be executed by the contractor and the contractor shall not directly or indirectly transfer, assign or underlet the contract or any part, share or interest therein nor, shall take

a new partner, without written consent of the Employer and no subletting shall relieve the contractor from the full and entire responsibility of the contract or from active superintendence of the work during their progress.

21. DAMAGE TO PERSONS AND PROPERTY INSURANCE ETC (third party)

The contractor shall be responsible for all injury to the work or workmen to persons, animals or things and for all damages to the structural and / or decorative part of property which may arise from the operations or neglect of himself or of any sub-contractor or of any of his or a sub-contractor's employees, whether such injury or damage arise from carelessness, accident or any other cause whatsoever in any way connected with the carrying out of this contract. The clause shall be held to include inter-alia, any damage to buildings whether immediately adjacent or otherwise, and any damage to roads, streets, foot paths or ways as well as damages caused to the buildings and the works forming the subject of this contract by rain, wind or other inclemency of the weather. The contractor shall indemnify the Employer and hold harmless in respect of all and any expenses arising from any such injury or damages to the person or property as aforesaid and also in respect of any claim made in respect of injury of damage under any acts on compensation or damage consequent upon such claim.

The contractor shall reinstate all damages of every sort mentioned in this clause so as to deliver the whole of the contract works complete and perfect in every respect and so as to make good or otherwise satisfy all claims for damages to the property of third parties.

The contractor shall affect the insurance necessary and indemnify the Employer entirely from all responsibility in this respect. The insurance must be placed with a company approved by the Employer and must be effected jointly in the name of the Employer and contractor and the policy lodged with the Employer. The scope of insurance is to include damage or loss to the contract itself till this is made over in a complete state. Insurance is compulsory and must be affected from the very initial stage. The contractor shall also be responsible for any thing, which may be excluded from damage to any property arising out of incidents, negligence or defective carrying out of this contract.

The Employer shall be at liberty and is hereby empowered to deduct the amount of any damages, compensations, costs, charges and expenses arising or accruing from or in respect of any such claim or damages from any sums due to or to become due to the contractor.

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22. MEASUREMENTS

Before taking any measurement of any work the Site Engineer or a subordinate deputed by him shall give reasonable notice to the contractor. If the contractor fails to attend at the measurements after such notice or fails to countersign or to record the difference within a week from the date of measurement in the manner required by Site Engineer or by the subordinate deputed by him as the case may be is final and binding on the contractor and contractor shall have no right to dispute the same.

23. PAYMENTS

All bills shall be prepared by the contractor in the form prescribed by the Employer's / Architects. Normally one interim bill shall be prepared each month subject to minimum value for interim certificate as stated in these documents. The bills in proper form must be duly accompanied by detailed measurements in support of the quantities of work done and must show deductions for all previous payments, retention money, etc.

The work done will be physically recorded by the contractor and shall be check measured by the architect/representative in the presence of the contractor and also check measured by the Engineer in charge CRGB.

The bill prepared by the Architect will be Scrutinized by the department and will be recommended to the competent Authority for Payment duly deducting at source retention Money ,IT and other taxes as applicable , as mentioned in the clauses.

If the Employer has supplied any materials or goods to the contractor, the cost of any such materials or goods will be progressively deducted from the amount due to the contractor in accordance with the quantities consumed in the work.

All the interim payments shall be regarded as payments by way of advance against the final payment only and not as payments for work actually done and completed, and shall not preclude the requiring of bad, unsound, and imperfect or unskilled work to be removal and taken away and reconstructed, or re-erected or be considered as and admission of the due performance of the contract, or any part thereof in any respect or the accruing of any claim, nor shall, it conclude, determine or affect in any way the power of the Employer under these conditions or any of them as to the final settlement and adjustment of the accounts or otherwise or in any other way vary or affect the contract. The final bill shall be submitted by the contractor within one week of the date fixed for completion of the work or of the date of certificate of completion furnished by the Architect and payment shall be made within one week from the date of receipt of Architect's certificate.

Final Payment

The final bill shall be accompanied by a certificate of completion from the Architects. Payments of final bill shall be made after scrutiny by the department which will be recommended to the competent authority for payment after deduction of Retention Money as specified in clause 11 of these conditions, which shall be refunded after the completion of the Defects Liability Period after receiving the Architect's certificate that the contractor has rectified all defects to the satisfaction of the Architects. The acceptance of the payment of the final bill by the contractor would indicate that he has no further claim in respect of the work executed.

24. VARIATION / DEVIATION

The tender rates shall be fixed and applicable for any increase or decrease in the tendered quantities. The Architect can increase or decrease any quantities to any extend or even delete particular item as per the site requirements and the contractor shall not be paid any thing extra on this account. Nothing extra will be paid by the CRGB on account of omission /

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deletion of items or decrease in the quantity of items. The CRGB shall not entertain any claim whatsoever from the contractor on this account.

The price of all additional items / non-tendered items will be worked out on the basis of rates quoted for similar items in the contract wherever existing. If similar items are not available, the rates for such items will be derived as per standard method of rate analysis based on prevalent fair price of labour, material and other components as required with 15% towards contractor's profit and overheads.

25. SUBSTITUTION

Should be contractor desire to substitute any materials and workmanship, he/they must obtain the approval of the Employer / Architects in writing for any such substitution well in advance. Materials designated in this specification indefinitely by such term as "Equal" or "Other approved" etc. specific approval of the Employer / Architect has to be obtained in writing.

26. CLEARING SITE ON COMPLETION

On completion of the works the contractor shall clear away and remove from the site all constructional plant, surplus materials, rubbish and temporary works of every kind and leave the whole of the site and the works clean and in a workmanlike condition to the satisfaction of the Employer/Architects.

27. DEFECTS AFTER COMPLETION

The contractor shall make good at his own cost and to the satisfaction of the Employer all defects, shrinkage, settlements or other faults, which may appear within 12 months after completion of the work. In the default, the Employer may employ and pay other persons to amend and make good such damages, losses and expenses consequent thereon or incidental thereto shall be made good and borne by the contractor and such damages, loss and expenses shall be recoverable from him by the Employer or may be deducted by the employer, in lieu of such amending and making good by the contractor, deduct from any money due to the contractor a sum equivalent to the cost of amending such work and in the event of the amount retained being insufficient recover that balance from the contractor from the amount retained under clause no.11 together with any expenses the Employer may have incurred in connection therewith.

28. CONCEALED WORK

The contractor shall give due notice to the Employer/Architects whenever any work is to be buried in the earth, concrete or in the bodies of walls or otherwise becoming inaccessible later on, in order that the work may be inspected and correct dimensions taken before such burial, in default whereof the same shall, at the opinion of the Employer/ Architect be either opened up for measurement at the contractor's expenses or no payment may be made for such materials. Should any dispute or differences arise after the execution of any work as to measurements etc., or other matters which cannot be conveniently tested or checked, the notes of the Employer / Architects shall be accepted as correct and binding on the contractor.

29. IDLE LABOUR

Whatever the reasons may be, no claim for idle labour, additional establishment cost of hire and labour charges of tools and plants would be entertained under any circumstances.

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30. SUSPENSION OF WORKS

If the contractor except on account of any legal restraint upon the Employer preventing the continuance of the work or in the opinion of the Employer shall neglect or fail to proceed with due diligence in the performance of his part of the contract or if he shall more than once make default, the Employer shall have the power to give notice in writing to the contractor requiring the work to be proceeded within a reasonable manner and with reasonable dispatch, such notice purport to be a notice under this clause.

After such notice shall have been given, the contractor shall not be at liberty to remove from the site of the works or from any ground contiguous thereto any plant or materials to subsist from the date of such notice being given until the notice shall have been complied with. If the contractor fails to start the work within seven days after such notice has been given to proceed with the works as therein prescribed, the employer may proceed as provided in clause 43. (Termination of Contract by Employer)

31. TERMINATION OF CONTRACT BY EMPLOYER

If the contractor being a company go into liquidation whether voluntary or compulsory or being a firm shall be dissolved or being an individual shall be adjudicated insolvent or shall make an assignment or a composition for the benefit of the greater part, in number of amount of his creditors or shall enter into a Deed or arrangement with his creditors, or if the Official Assignee in insolvency, or the Receiver of the contractor in insolvency, shall repudiate the contract, or if a receiver of the contractor's firm appointed by the court shall be unable within fourteen days after notice to him requiring him to do so, to show to the reasonable satisfaction of the employer that he is able to carry out and fulfill the contract, and if so required by the employer to give reasonable security

therefore, or if the contractor shall suffer execution to be issued, or shall suffer any payment under this contract to be attached by or on behalf of and of the creditors of the contractor, or shall assign, charge or encumber this contract or any payments due or which may become due to contractor, there under, or shall neglect or fail to observe and perform all or any of the acts matters of things by this contract, to be observed and performed by the contractor within three clear days after the notice shall have been given to the contractor in manner hereinafter mentioned requiring the contractor to observe or perform the same or shall use improper materials of workmanship in carrying on the works, or shall in the opinion of the employer not exercise such due diligence and make such progress as would enable the work to be completed within due time agreed upon, and shall fail to proceed to the satisfaction of the employer after three clear das notice requiring the contractor so to do shall have been given to the contractor as hereinafter mentioned or shall abandon the contract, then and in any of the said cases, the Bank may notwithstanding previous waiver determine the contract by a notice in writing to the effect as hereinafter mentioned, but without thereby effecting the powers of the employer of the obligations and liabilities of the contractor the whole of which shall continue in force as fully as if the contract, had not been so determine and as if the works subsequently executed by or on behalf of the contractor (without thereby creating any trust in favour of the contractor) further the employer or his agent, or servants, may enter upon and take possession of the work and all plants tools scaffolding sheds machinery, steam, and other power, utensils and materials lying upon premises or the adjoining lands or roads and sell the same as his own property or may employ the same by means of his own servants and workmen in carrying on and completing the works or by employing any other contractors or other persons or person to complete the works, and the contractor shall not in any way interrupt or do any act, matter or thing to prevent or hinder such other contractors or other persons or person employed from completing and finishing or using the materials and plants for the works when the works shall be completed, or as soon thereafter as conveniently may be the employer shall give notice in writing to the contractor to remove his surplus materials and plants and should the contractor to remove his surplus materials after receipt by him the employer may sell the same by Public Auction and shall give credit to the contractor for the amount so realized. Any expenses or losses incurred by the contractor for the amount so realized. Any expenses or

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losses incurred by the employer in getting the amount payable to the contractor by way of selling his tools and plants or due on account of work carried out by the contractor prior to engaging other contractors or against the Security Deposit.

32. ARBITRATION

All disputed or differences of any kind whatsoever which shall at any time arise between the parties hereto touching or concerning the works or the execution or maintenance thereof this contract or effect thereof or to the rights or liabilities of the parties or arising out of or in relation thereto whether during or after determination foreclosure or breach of the contract (other than those in respect of which the decision of any person is by the contract expressed to be final and binding) shall after written notice by either party to the contract to the other of them and to the Employer hereinafter mentioned be referred for adjudication to a sole Arbitrator to be appointed as hereinafter provided.

For the purpose of appointing the sole Arbitrator referred to above, the Employer will send within thirty days of receipt of the notice, to the contractor a panel of three names of persons who shall be presently unconnected with the organization for which the work is executed from the following categories of Arbitrators”:-

- a. Retired High Court/Supreme Court judge who have experienced in handling Arbitration Cases.
- b. Member of Council of Arbitrators
- c. Fellow of the Institution of Engineers
- d. Eminent Retired Chief Engineer from State/Central PWD/Public sector undertaking of good reputation and integrity
- e. Fellow of Indian Institute of Architects

The contractor shall on receipt of the names as aforesaid, select any one of the persons name to be appointed as a sole Arbitrator and communicate his name to the Employer within thirty days of receipt of the names. The Employer shall thereupon without any delay appoint the said person as the Sole Arbitrator. If the contractor fails to communicate such selection as provided above within the period specified, the Competent Authority should make the selection and appoint the selected person as the Sole Arbitrator.

If the Employer fails to send to the contractor the panel of three names as aforesaid within the period specified, the contractor shall send to the Employer a panel of three names of persons who shall all be unconnected with either party. The Employer shall on receipt appoint him as the Sole Arbitrator. If the Employer fails to select the person and appoint him as the Sole Arbitrator within 30days of receipt of the panel and inform the contractor accordingly, the contractor shall be entitled to appoint one of the persons from panel as the Sole Arbitrator and communicate his name to the Employer.

If the Arbitrator so appointed is unable or unwilling to act or resigns his appointment or vacates his office due to any reason whatsoever another Sole Arbitrator shall be appointed as aforesaid.

The work under the Contract shall, however, continue during the arbitration proceedings and no payment due or payable to the contractor shall be withheld on account of such proceedings.

The Arbitrator shall be deemed to have entered on the reference on the date he issued notice to both the parties fixing date of the first hearing.

The Arbitrator may from time to time, with the consent of the parties, enlarge the time for making and publishing the award.

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The arbitrator shall give a separate award in respect of each dispute or difference referred to him. The Arbitrator shall decide each dispute in accordance with the terms of the contract and give a reasoned award. The venue of arbitration shall be such place as may be fixed by the Arbitrator in his Sole discretion.

The award of the Arbitrator shall be final and binding on the both the parties.

Subject to aforesaid the provisions to the Arbitration Act. 1992 or any statutory modification or re-enactment thereof and the rules made there under, and for the time being in force, shall apply to the arbitration proceeding under this clause.

The Employer and the contractor hereby also agree that arbitration under clause shall be condition precedent to any right to action under the contract with regard to the matters hereby expressly agreed to be so referred to arbitration.

The Employer's decisions, opinions, directions, certificates with respect to all or any of the matters under clause No.5.2, 5.9, 5.12, 5.13, 5.14, 5.22, 5.23, 5.27, 5.32 & 5.43 of GENERAL CONDITIONS OF CONTRACT shall be final, conclusive and binding on the parts hereto and shall be without any appeal.

SETTLEMENT OF DISPUTES AND ARBITRATION

Except where otherwise provided in the contract all questions and disputes relating to the meaning of the specifications, design, drawings and instructions herein before mentioned and as to the quality of workmanship or materials used on the work or as to any other question, claim, right, matter or thing whatsoever in any way arising out of or relating to the contract, designs, drawings, specifications, estimates, instructions orders, or these conditions or otherwise concerning the work or the execution or failure to execute the

same whether arising during the progress of the work or after the cancellation, termination, completion or abandonment thereof shall be dealt with as mentioned hereinafter.

1 If the Contractor considers that he is entitled to any extra payment or compensation in respect of the works over and above the amounts admitted as payable by the Architect or in case the Contractor wants to dispute the validity of any deductions or recoveries made or proposed to be made from the contract or raise any dispute, the Contractor shall forthwith give notice in writing of his claim, or dispute to the General Manager I CRGB head office Raipur Chhatisgarh. and endorse a copy of the same to the Architect within 30 days from the date of disallowance thereof or the date of deduction or recovery. The said notice shall give full particulars of the claim, grounds on which it is based and detailed calculations of the amount claimed and the Contractor shall not be entitled to raise any claim nor shall the Bank be in any way liable in respect of any claim by the Contractor unless such claim shall have been given by the Contractor to the General Manager GRGB in the manner and within the time as aforesaid. The Contractor shall be deemed to have waived and extinguished all his rights in respect of any claim not notified to the General Manager ADMIN CRGB in writing in the manner and within the time aforesaid.

2 The General Manager ADMIN CRGB shall give his decision in writing on the claims notified By the Contractor. The Contractor may within 30 days of the receipt of the decision of the General Manager ADMIN CRGB submit his claims to the conciliating authority namely the Chairman CRGB HEAD OFFICE Raipur Chhatisgarh Local for conciliation along with all details and copies of correspondence exchanged between him and the General Manager admin CRGB

3 If the conciliation proceedings are terminated without settlement of the disputes, the Contractor shall, within a period of 30 days of termination thereof shall give a notice to th concerned CHAIRMAN of the bank for appointment of an arbitrator to

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adjudicate the notified claims falling which the claims of the Contractor shall be deemed to have been considered absolutely barred and waived.

4 Except where the decision has become final, binding and conclusive in terms of the contract, all disputes or differences arising out of the notified claims of the Contractor as aforesaid and all claims of the Bank shall be referred for adjudication through arbitration by the Sole Arbitrator appointed by the Chief General Manager/Managing Director. It will also be no objection to any such appointment that the Arbitrator so appointed is a Bank Officer and that he had to deal with the matters to which the Contract relates in the course of his duties as Bank Officer. If the arbitrator so appointed is unable or unwilling to act or resigns his appointment or vacates his office due to any reason whatsoever another sole arbitrator shall be appointed in the manner aforesaid by the said Chief General Manager/Managing Director. Such person shall be entitled to proceed with the reference from the stage at which it was left by his predecessor.

5 It is a term of this contract that the party invoking arbitration shall give a list of disputes with amounts claimed in respect of each dispute alongwith the notice for appointment of arbitrator.

6 It is also a term of this contract that no person other than a person appointed by such General Manager/Managing Director as aforesaid should act as arbitrator.

7 The conciliation and arbitration shall be conducted in accordance with the provisions of the Arbitration & Conciliation Act 1996 or any statutory modification or re-enactment thereof and the rules made there under.

8 It is also a term of this contract that if any fees are payable to the arbitrator these shall be paid equally by both the parties. However, no fees will be payable to the arbitrator if he is a Bank Officer.

9 It is also a term of the contract that the arbitrator shall be deemed to have entered on the reference on the date he issues notice to both the parties calling them to submit their statement of claims and counter statement

of claims. The venue of the arbitration shall be such place as may be fixed by the arbitrator in his sole discretion. The fees, if any, of the arbitrator shall, if required to be paid before the award is made and published, be paid half and half by each of the parties. The cost of the reference and of the award (including the fees, if any of the arbitrator) shall be in the discretion of the arbitrator who may direct to any whom and in what manner, such costs or any part thereof, shall be paid and fix or settle the amount of costs to be so paid.

33. WATER SUPPLY, TOILETS ETC.

The selected tenderer shall make his own arrangements at his own costs for the supply of approved quality water require for construction and for drinking purposes and shall provide at his costs all tubes, fittings and temporary plumbing work required and on completion of the works, shall remove all temporary appliances and make good any work disturbed by making such arrangements to the satisfaction of the Employer.

34. ELECTRIC POWER

The Contractor shall make a **sub meter arrangement from Existing power meter** for electric consumption done by the for driving plant and machinery for the work and for lighting purpose at his own cost. The cost of running and maintenance of the plants are to be included in his tender prices. He shall pay all fees and charges legally demandable and include the same in his tendered rates and hold the Employer free from all such costs. As bank already secured electric power connection the contractor shall pay the power charges as per the usage.

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35. MATERIAL HEAD LOAD

The Contractor shall make his own arrangements for Materials to be carried out by head load. The price quoted shall be inclusive of all the lead and lift of materials to various floors. No extra payment will be made by the Bank.

36. INSURANCE (CONTRACTOR'S ALL RISK POLICY)

Unless otherwise instructed the Contractor shall insure the works and keep them insured until the virtual completion of the contract against loss or damage (incl. third party) by fire and earthquake, flood, wars, storms etc. The insurance must be placed with a company approved by the Employer, in the joint names of the

Employer and the Contractor (the name of former being placed first in the policy) for full amount of contract and for any further sum if called to do so by the Employer, the premium of such being allowed to the Contractor as an authorized extra.

The Contractor shall deposit the policy and receipt for premiums paid with the Employer within 21(twenty one) days from the date of issue of work order unless otherwise instructed. In default of the Contractor insuring as provided above, the Employer on his behalf may so insure and may deduct the premiums paid from any money due, or which may become due to the Contractor. The Contractor shall as soon as the claim under the policy is settled or the work reinstated by the Insurance Company should they elect to do so, proceed with due diligence with the completion of the works in the same manner as though the fire has not occurred and in all respects under the conditions of the contract. The Contractor in case of rebinding or reinstatement after fire shall be entitled to extension of time for completion as the Employer may deem fit.

37. ADVANCE PAYMENT.

No advance or mobilization advance shall be paid in any circumstances.

38. As The work has to be executed in the Premises of an office which is functional and no in convenience to be created for effective functioning of office during office hours. The Contractor should make his own necessary arrangements like Labour, material, machinery Etc., outside of the premises.

39. 50% of the invoice cost (Not exceeding tender rate cost) will be paid after the supply of Materials such as Panels, Cables etc.,

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SPECIAL CONDITIONS OF CONTRACT

1. DRAWINGS AND SPECIFICATIONS

The works shall be carried out to the entire satisfaction of the EMPLOYER and the Architect, in accordance with the signed drawings and specifications and such further drawings and details as may be provided by the Architect, and in accordance with such written instructions, directions and explanations as may from time to time be given by the Architect, whose decision as to the sufficiency and quality of the work and materials shall be final and binding upon all parties. If the work shown on any such further drawings or work that may be necessary to comply with any such instructions directions or explanations, be in the opinion of the contractor extraction that comprised in or reasonably to be inferred from the contract he shall before proceedings with such work, give notice in writing to this effect to Architect, and in the event of the Architects agree to the same in writing the contractor shall be entitled to an allowance in respect of such extra work as on authorized extra. If the Architect and the contractor fail to agree as to whether or to there is an extra, then, if the Architect decided that the contractor is to carry out the said work, the contractor shall do so, and the question whether or not there is any extra, and it so the amount thereof, shall failing agreement, be settled by Arbitration as hereinafter provided, but such references shall in no way delay the fulfillment of this contract.

No drawings shall be taken as in itself on order for variation unless, in addition to the Architect's signature, it bears express words stating that is intended to be such an order or bears a remark **'VALID FOR EXECUTION'**. No claim for payment for extra work shall be allowed unless the said work shall have been executed under the provisions of clause 6 (Authorities notices, patent right and royalties) or by the Authorities of directions in drawing of the Architect as herein mentioned.

One complete set of the signed drawings and specification and scheduled of quantities shall be furnished by the Architect to the Contractor. The Architect shall furnish within such time, as he may consider reasonable, one copy of any additional drawing, which is his opinion, may be necessary for the execution of any part of work. Such copies shall be kept at the works, and the architect or his representatives shall, at all reasonable time have access to the same and shall be return to the Architect by the contractor before the issue of the Final certificate. The contract shall remain in the custody of the Architect, and shall be produced by him at his office as and when required by the Employer or by the contractor.

2. INSPECTION OF DRAWINGS

Before filling in the tender, the contractor will have to check up all drawings and schedule of quantities, and will have to get an immediate clarification from the Architect on any point that he feels is vague or uncertain. No claim of damages or compensation will be entertained on this account.

3. EXECUTION OF WORK (PRICES TO INCLUDE)

The whole of the work is described in the contract a (including the schedule of Quantities, the specifications and all drawing pertaining there to) and as advised by Architect from time to time is to be carried out and completed in all its parts to the entire satisfaction of the Architect. Any minor details of the work which may not have been definitely referred to in this contract, but which are usual in practice and essential to the work, are deemed to be include in this contract. Rates quoted in the Schedule shall be inclusive of all freights, taxes, such as octroi, sales tax, Royalties, duties, excise, turnover tax, sales tax on works contract, etc., as well as transportation, so as to execute the contractor as per the rules and regulations of Local Bodies, State Government and Government of India.

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The rates quoted in the tender should include all charges for:

- a. Labor, maintenance fixing, carrying, cleaning, making good, hauling, watering etc
- b. Plant, machinery, scaffolding, framework, English ladders, ropes, nails, spikes, tools, materials and workmanship protection from weather, shuttering, temporary supports, platform and maintenance of the same.
- c. Covering for the walling and other works during inclement weather or striking or whenever directed as necessary.

4. SITE SUPERVISION

The contractor shall appoint at his own cost competent and adequate number of qualified Engineers at site, for (1) joint measurements and preparations of bills, (2) for testing materials at site and outside laboratory, (3) for other general supervision. Their appointment shall be approved by the Employer / Architect. The site Engineers shall not be removed from the site without the written consent of the Employer / Architect.

5. DIMENSIONS

Figures, dimensions, are in all case to be accepted preferences to scaled sizes. Large-scale details take precedence over small-scale drawings. In case of discrepancy, the contractor is to ask for a clarification before proceeding with the work. Accordingly if any work is executed without prior clarification it is liable to be rejected and shall not be paid for.

6. PROGRAMME OF WORKS

Contractor shall have to prepare and submit the CPM/PERT charges for Architect's approval immediately after issue of the work order and display the approved charts in the site office. He shall also make bar charts indicating individual items and during the progress of work he shall update the bar charts showing the proportionate progress of work every week.

He shall strictly adhere to the programme of works as per CPM/PERT charts showing the proportionate progress of work.

7. PROCUREMENT OF MATERIALS

Contractor shall procure all the materials for the work from the open market. Time is the essence of the contract. Acceptance of the completion date by the contractor shall mean that he has taken into consideration the availability of all material of approved make and quality in sufficient quantities at site to enable him to complete the entire work in the stipulated period.

Contractor will get sample of all materials approved by the Employer / Architect before placing order / purchase / procurement. They shall conform to I.S. codes and or tender specification as applicable.

For all materials the contractor shall quote for the best quality of the materials of best make / source or supply and it will be got approved by Employer / Architect before procurement.

In case sufficient quantities of approved quality materials from approved source are not available in time, contractor may have to procure the same for neighboring area with longer leads as required and directed at no extra cost. The material will be, however as per relevant I.S code as and wherever applicable.

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8. UNFIXED MATERIALS

When any materials intended for the works shall have been placed at site by the Contractor, such material shall not be removed there from (except for the purposes of being used on the works) without the written authority of the Employer / Architect. **No payment will be made for unfixed material.**

9. CUSTODY AND SECURITY OF MATERIALS

The contractor shall be responsible for the custody and security of all materials and equipment at site and he will provide full time watchman / watchmen to look after his materials, stores equipments etc.

10. RATES

Contractor shall quote all the rates both in figures and in words and any alterations shall have to be initiated by the contractor. Rates quoted by the contractor for the same item in different schedules will be same and in case different rates are quoted, the lowest will be taken as correct and the schedule corrected accordingly. In case of discrepancy between figures and the words the rate quoted in words shall be taken as correct one. All quoted rates should be inclusive of sales tax on works contract. Rates quoted by the contractor shall hold good for all the work carried out to any height and depth as shown in detailed drawings and as required and directed by the Architect.

Rates quoted by the contractor shall also hold good for any small work at any place at site.

11. PRICES FOR EXTRAS ETC., ASCERTAINMENT OF

Should it be found after the completion of the works from measurements taken (in accordance with the previous paragraph) that any of the quantities or amounts of the work thus ascertained are less or greater than the amounts specified for the works in the priced schedule of quantities and / or tender or that any variations, is made, the valuation of such quantities, amounts or variations, unless previously or otherwise agreed upon, shall be made accordance with the following rules

- a. The net rates or prices in the original tender shall determine the valuation of the extra work, where extra work is of a similar character and executed under similar conditions the work priced therein.
- b. The net prices the original tender shall determine the value of the item omitted, provided if omissions vary the conditions under which any remaining items of work are carried out, the prices for the same shall be valued under thereof
- c. Where extra works are not of similar character and / or executed under similar conditions as aforesaid or where the omissions vary, the conditions under which any remaining items of work are carried out of it the amount of any omission or additions relative to the amount of the whole of the contract works or to be any part thereof shall be such that in the opinion of the Architects the net rate or price contained in the priced schedule of quantities or tender or for any item of work involves loss or expenses beyond that reasonably contemplated by the contractor or is by reason of such omission or addition rendered unreasonable or inapplicable, the Architect shall fix in consultation with the Employer such other rate or prices as in the circumstances he shall think reasonable and proper, which shall be final and binding on the contractor.
- d. Where extra work cannot be properly measured or valued, the contractor shall be allowed any work prices at the net rates stated in the tender or the priced schedule of quantities, or if not so stated, then in accordance with the local day work rates and wages for the district, provided that in either case vouchers specifying the

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daily time (and if required by the Architect, the workmen's name) and materials employed at or before the end of the week following that in which the work has been executed.

The measurements and valuations in respect of the extra items of contract shall be completed within the 'period of final measurement' or within three months of the completion of the contract works as defined under clause no 16 (Certificate of Virtual Completion)

12. EXTRA ITEMS RATES

The work or extra items shall be started only after the approval of extra items rates by client / Architect. Rates for additional or extra items of construction work, which can be derived from the contract item rates and are not covered in the contract, shall be calculated on the basis of actual cost plus 10 % for profit.

13. ARCHITECT'S DRAWINGS AND INSTRUCTIONS

A set of major drawings along with the contract documents shall be provided to the contractor. For any clarifications or further drawings are required by the contract, during or before the start of construction work, the Contractor shall inform the Architects in writing to provide the same. Working details will be given to the contractor from time to time during the progress of work as and when required. In case of other drawing is required by the contractor he will give a minimum ten days notice to the Employer / Architect.

14. FAILURE BY CONTRACTOR COMPLY WITH ARCHITECT INSTRUCTIONS

If the contractor after receipt of written notice from the architect requiring compliance with such further drawings and / or Architects instruction, fails within seven days to comply with the same, the Employer / Architect may employ and pay other persons to execute any such work whatsoever as may be necessary to give effect thereto and all cost incurred in connection therewith shall be recoverable from the contractors by the Employer on a Certificate by the Architect as a debit or may be deducted by him from any money due or which become due to the Contractors.

15. INFORMATION TO BE SUPPLIED BY THE CONTRACTOR

- a. The contractor shall furnish the Employer / Architect the following:
- b. Detailed industrial statistics regarding the labor employed by him etc
- c. The Power of Attorney, name and signature of his authorized representative who will be in charges for the execution of work
- d. The list of technically qualified persons employed by him for the execution of this work.
- e. The total quantity and quality of materials used for the works.
- f. The list of plant and machinery employed for this work.

16. ARCHITECT'S DELAY IN PROGRESS

The Architect may delay the progress of the works in case of rains or otherwise, without vitiating the contract and grant such extension of time with the approval of the employer for the completion of the contract as he may think proper and sufficient in consequences of such delay, and the contractor, shall not make any claim for compensation or damage in relation thereto.

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17. CERTIFICATE AND PAYMENTS

The contractor shall be paid by the Employer from time to time, by installments under interim Certificates to be issued by the Architect to the contractor on account of the works executed by the contractor when in the opinion of the Architect, work to the approximate value, named in the Appendix as 'Value of work for interim Certificates' (or less at the reasonable discretion of the Employer / Architect) has been executed in accordance with this contract, subject however, to a retention of the percentage of such value need in the Appendix hereto

mentioned as 'retention percentage for interim Certificates' until the total amount retained shall reach the sum named in the appendix as Total Retention money after which time the installments shall be up to the full value of the work subsequently so executed in the interim Certificate, such amount as he may consider proper on account materials delivered upon the site by the Contractor for use in the work. And when the works have been virtually completed and the Architect shall have certified in writing that they have been completed, the contractor shall be paid in accordance with the Certificate issued by the Architect the sum of money named in the Appendix after satisfying themselves as 'Installment after Virtual Completion' being a part of the said 'Total Retention Money'.

The Contractor shall be entitled to the payment of the final balance in accordance with the final Certificate to be issued in writing by the Architect at the expiration of the period refer to as 'The Defect Liability Period' in the Appendix hereto, from the date of Virtual Completion or as soon as after the expiration of such period as the work shall have been finally completed and all defect made good according to the true intent and meaning hereof, whichever shall happen, provided always that the issue by the Architect of any certificate during the progress of the works or after the completion shall not relieve the Contract from his liabilities in cases of fraud, dishonesty or fraudulent concealment relating to the works of materials or any matter dealt within the certificate, and in case of all defects and insufficiency in the works or materials which reasonable examination would have disclosed. No certificate of the Architect shall of itself be conclusive evidence that any works and materials to which it relates are in accordance with the contract.

The Architect shall have power to withhold any certificate if the works or any part thereof are not being carried out to his / employer satisfaction.

The Architect may by any Certificate make any correction in any previous Certificate, which shall have been issued by him.

Payment upon the Architect's Certificates shall be made within a period named in the Appendix as 'Period of honoring of Certificates' after such Certificates have been delivered to Employer.

18. DELAYED PAYMENTS

Any amounts payable by the Employer to the contractor in pursuance of any Certificate given by the Architect hereunder shall, if not paid within the 'Period of honoring of Certificate' no interest paid by the Employer.

19. FORCE MAJEURE

Neither party shall be held responsible by the other for breach of any condition of this agreement attributable to any 'Act of God' Act of state, lockout of control or any other reason, beyond the control of the parties and any breach of clauses arising from much force majeure conditions as aforesaid shall not be regarded as a breach of the provision of this Agreement.

20. INCOME-TAX AND GST

Income Tax and GST shall be deducted at source by the client from the contractor's interim and final bill payments as per Statutory Regulations.

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21. SITE MEETINGS

A senior representative of the contractor shall attend weekly meetings at works site and in addition meetings as and when arranged by Architect to discuss the progress of the work and sort out problems, if any and ensure that the work is completed in the stipulated time.

22. ACTION WHERE THERE IS NO SPECIFICATION

In case of any class of work for which is there is no specification mentioned, the same will be carried out in accordance with the Indian Standards Specifications subject to the approval of the Architect.

23. REPORTING OF ACCIDENT TO

The contractor shall be responsible for the safety of persons employed by him on the works and shall reports serious accidents to any of them whenever and wherever occurring on the works to employer who shall make every arrangement to render all possible assistance. This shall be without prejudice to the responsibility of the contractor under the Insurance Clause of the general conditions. Contractor shall take all precaution detailed in the safety code attached separately.

24. TYPOGRAPHICAL CLERICAL ERRORS

The Employer / Architect clarification regarding partially omitted particulars of typographical or Clericals errors shall be final and binding on the contractors.

25. WORK PERFORMED AT CONTRACTOR'S RISK

The contractor shall take all precautions necessary and shall be responsible for the safety of the work and shall maintain all lights, goods, signs, temporary passages or other protection necessary for the purpose. All works shall be done by the contractor's risk and if any loss or damage shall result from fire or from others cause, the contractor shall promptly repaid or replace such loss or damage free from all expenses to the employer.

The contractor shall be responsible for any loss or damage to materials, tools or other articles used held for use in connection with the work. The work shall be carried on to completion without interferences with the operations of existing machinery or equipment, if any.

26. SPECIAL CONDITIONS OF CONTRACT

In the event of any discrepancy with clauses mentioned anywhere else in the tender with the clauses mentioned within special conditions of contract, the clauses mentioned within the special conditions of contract shall supersede those mentioned elsewhere.

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FORM OF AGREEMENT.

ARTICLES of AGREEMENT made this _____ day of _____ year 2024 between the CRGB Corporate office ,Plot no 47,sector 24,Naya Raipur, Chhattisgarh (Hereinafter referred to as the "Employer / Owner" which expression shall, unless excluded by or repugnant to the context, includes its successors and assigns) of the ONE PART and _____ of _____ (Hereinafter referred to as "Contractor" unless excluded by or repugnant to the context, includes its successors and assigns) of the OTHER PART.WHEREAS the Employer intends to carry out **TENDER FOR TENDER FOR INSTALLATION OF 84KW(40KW ON PARKING AREA AND BALANCE ON ROOF TOP) SOLAR POWER SYSTEM FOR ENERGY CONSERVATION AT COPORATE OFFICE PLOT NO 47 SECTOR 24 IN ATAL NAGAR, NAYA RAIPUR ,CHHATTISGARH STATE.**

(Herein referred to as "Project"). AND WHEREAS the Employer in order to effectively carry out the said works has engaged M/s. ABHIKRAM-S (Hereinafter referred to as "Architects") to prepare plans, drawings and specifications describing the works to be executed by the contractors for the project, to open tenders received at the office of the Employer, to scrutinize and recommend to the Employer the name(s) of the Contractor(s) from whom tenders were received and recommended to the Employer for the issue of work order to the contractor.

AND WHEREAS for the purpose of the said project, the Employer invited sealed tenders from experienced, resourceful and bonafide contractors vide his Notice Inviting Tender (NO. _____ dated. _____).

WHEREAS the contractor submitted his Tender Documents containing General Notes, General Conditions of the Contract, Technical Specifications and Schedule of Quantities etc. for the works, prepared with the assistance of Consultants (Hereinafter collectively referred to as the "said conditions"),duly signed on each page as a token of his acceptance of the same , along with requisite Earnest Money Deposit of Rs. _____ (Copy enclosed Vide Annexure-1).

AND WHEREAS out of the Tenders received, the Tender of the contractor was found to be most suitable for the project.

AND WHEREAS the Architect has accordingly recommended to the employer for issue of work order to the contractor subject to his furnishing the requisite Security Deposit (Copy enclosed Vide Annexure-II).

AND WHERE AS the employer has issued the Work Order (No. _____ dated. _____) to the contractor.

AND WHEREAS the Contractor has accepted the aforesaid Work Order vide his letter of acceptance NO. _____ dt. _____ (Copy enclosed Vide Annexure III) and has also deposited with the Employer a sum of Rs. _____ which with the Earnest Money of RS. _____ forms the requisite Security Deposit @ 1 % of the accepted Tender Value of Rs. _____.

AND WHEREAS the Employer has caused the plans, drawings, specifications, schedule of quantities etc. relating to the project at the work site at to be issued to the Contractor.

NOW , therefore, it is hereby agreed to and between the parties as follows:

- 1) Contract documents

The following documents shall constitute the Contract Documents.

- I. This Article of Agreement.
- II. Tender submitted by the Contractor included the N.I.T and Tender Documents(Vide Annexure-I).
- III. All correspondence between the Bank/Architects and the Contractor from the date

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of issue of N.I.T and the date of issue of work order.

IV. Work order No. _____ dt. _____ (Vide Annexure-II).

2) In consideration of the payments to be made to the Contractor as hereinafter provided the Contractor shall upon and subject to the said conditions, execute and complete the contracted works shown upon the said drawings etc. and such further detailed drawings as may be furnished to the contractor by the said Owner/Employer through the Architects and described in the said Specifications and the said Schedule of Quantities.

3) Notwithstanding what are stated in the N.I.T conditions of Tendering, Conditions of Contract of herein before stated by the Employer through the Architects, reserves itself the right of altering the drawings and the nature of the work and addition to or omitting any items of work or of having portions of same carried out departmentally or otherwise and such alterations or variations shall be carried out without prejudice to this contract.

4) As mentioned in Article 1 above, the said conditions shall be read and be treated as forming part of this agreement and parties hereto will respectively be bound thereby and to abide by and submit themselves to the conditions and stipulations and perform the same on their parts to be respectively observed and preferred.

5) Any dispute arising under this agreement shall be referred to the Arbitration in a manner specified in the General Conditions of the Contract and all legal disputes shall be limited within the territorial jurisdiction of the Hyderabad thereto. The decision of the arbitration shall be final and binding on both the parties.

IN WITNESS WHEREOF THE PARTIES to there present have hereunder set and subscribed their hands, the _____ day, month and year first above written.

Signed and delivered for and on behalf of
CRGB
Shri. _____

Its duly authorized official
In the presence of –

1. (Name and Address)

2. (Name and Address)

Signed and delivered for and on behalf of The Contractor _____ by Shri _____ his
Duly authorized official In the presence of –

1. (Name and Address)

2. (Name and Address)

Signature of contractor

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TECHNICAL SPECIFICATIONS OF SOLAR WORKS

The proposed projects shall be commissioned as per the technical specifications given below. Any shortcomings will lead to cancelation of contract in full or part as decided by CRGB & Competent Authority's decision will be final and binding on the bidder.

1.0 DEFINITION

A Grid Tied Solar Roof Top Photo Voltaic (SPV) system shall consist of following equipment's/compo- nents.

- Solar PV modules consisting of required number of PV modules.
 - Grid interactive Power Conditioning Unit (Inverter, MPPT and Controls & Protections)
 - ✓ Mounting structures.
 - ✓ Junction Boxes.
 - ✓ Interconnection cables &links.
 - ✓ Cable trays/ UPVC Pipes for cable supports.
 - Remote Data Monitoring System.
 - IR/UV protected PVC Cables, Interconnect switches and accessories.
 - Solar Photo Voltaic (SPV) modules consisting of required number of Crystalline PV modules should be in the range of 500 - 650 Watts.
 - Inverter/PCU (5 NOS or more)
 - Module Mounting structures
 - Energy Meter
 - Array Junction Boxes
 - DC Distribution Box
 - AC Distribution Box
 - Protections – Individual Earthing (3nos or more for Phase, Neutral, Earthing) for each Inverter , Lightning and Surge protection
 - Cables
 - **Shop Drawing & Manuals**
 - Miscellaneous
- Each Inverter should be controlled by the App and Vendor should provide the same. Necessary SIM should be provided by the Vendor.

Grid tied SPV system is without battery and should be designed with necessary features to supplement the grid power during daytime. Components and parts used in the SPV power plants including the PV modules, metallic structures, cables, junction box, switches, PCUs etc., should conform to the BIS or IEC or international specifications, wherever such specifications are available and applicable.

2.0 PLANNING AND DESIGNING:

1. The bidder should carryout Shadow Analysis at the site and accordingly design strings & arrays layout considering optimal usage of space, material and labor. The bidder should submit the array layout drawings along with Shadow Analysis Report to CRGB for approval.
2. CRGB reserves the right to modify the landscaping design, Layout and specification of sub-systems and components at any stage as per local site conditions/requirements.

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3. The bidder shall submit preliminary drawing for approval & based on any modification or recommendation, if any. The bidder submits three sets and soft copy in CD of final drawing for formal approval to proceed with construction work.

3.0 DRAWINGS TO BE FURNISHED BY BIDDER AFTER AWARD OF CONTRACT

Apart from Shadow analysis report of the roof & wind load calculation sheet, bidder must submit following drawings

- i The Contractor shall furnish the following drawings Award/Intent and obtain approval
- ii General arrangement and dimensioned layout
- iii Schematic drawing showing the requirement of SV panel, Power conditioning Unit(s)/ inverter, Junction Boxes, AC and DC Distribution Boards, meters etc.
- iv. Structural drawing along with foundation details for the structure.
- iv Layout of solar Power Array

V. Single line diagram related to electrical infrastructure including wiring of existing campus for CEA approval

On approval of the General Arrangement drawings bidder shall be responsible for submission two sets of Engineering, electrical drawings and Installation and O&M manuals, technical data sheets for each equipment giving details of the specifications along with make/makes in their bid along with basic design of the power plant and power evacuation, synchronization along with protection equipment.

4.0 SOLAR PHOTOVOLTAIC MODULES:

- i. The PV modules used should be made in India.
- ii. The PV modules used must qualify to the latest edition of IEC PV module qualification test or equivalent BIS or equivalent IS. Crystalline Silicon Solar Cell Modules IEC 61215/IS14286. In addition, the modules must conform to IEC 61730 Part-2- requirements for construction & Part 2 – requirements for testing, for safety qualification or equivalent IS.
- iii. For the PV modules to be used in a highly corrosive atmosphere throughout their lifetime, they must qualify to IEC 61701/IS 61701

iv. The total solar PV array capacity should not be less than allocated capacity (kWp) and should comprise of solar crystalline modules of minimum 500-650 Wp and above wattage. Module capacity less than minimum 500 watt peak will not be accepted.

- vi. Protective devices against surges at the PV module shall be provided. Low voltage drop bypass diodes shall be provided.
- vii. PV modules must be tested and approved by one of the IEC authorized test centers.
- viii. The module frame shall be made of corrosion resistant materials, preferably having anodized aluminum.
- ix. The bidder shall carefully design & accommodate requisite numbers of the modules to achieve the rated power in his bid. Bank shall allow only minor changes at the time of execution.

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x. Other general requirement for the PV modules and subsystems shall be the Following:

- 1) The rated output power of any supplied module shall have tolerance of +/- 3%.
- 2) The peak-power point voltage and the peak-power point current of any supplied module and/or any module string (series connected modules) shall not vary by more than 2 (two) per cent from the respective arithmetic means for all modules and/or for all module strings, as the case may be.
- 3) The module shall be provided with a junction box with either provision of external screw terminal connection or sealed type and with arrangement for provision of by-pass diode. The box shall have hinged, weather proof lid with captive screws and cable gland entry points or may be of sealed type and IP-65 rated.
- 4) IV curves at STC should be provided by bidder

Xi Modules deployed must use a RF identification tag. The following information must be mentioned in the RFID used on each modules (This can be inside or outside the laminate, but must be able to withstand harsh environmental conditions).

- A) Name of the manufacturer of the PV module
- B) Name of the manufacturer of Solar Cells.
- C) Month & year of the manufacture (separate for solar cells and modules)
- D) Country of origin (separately for solar cells and module)
- E) I-V curve for the module Wattage, I_m , V_m and FF for the module
- F) Unique Serial No and Model No of the module
- G) Date and year of obtaining IEC PV module qualification certificate.
- H) Name of the test lab issuing IEC certificate.
- I) Other relevant information on traceability of solar cells and module as per ISO 9001 and ISO 14001

Other general requirement for the PV modules and subsystems shall be the Following:

Type	Crystalline silicon (mono or multi)/ Concentrated PV Mod- ules (CVP or HCVP)
Efficiency	$\geq 13\%$
Fill factor	$\geq 70\%$
Module frame	Frameless/ Non-corrosive and electrolytically compatible with the mounting structure material
Termination box	Thermo-plastic, IP 65, UV resistant
Blocking diodes	Schottky type
Module minimum rated power	The nominal power of a single PV module shall not be less than 500-650 Wp.
Power output rating	To be given for standard test conditions (STC). I-V curve of the sample module shall be submitted.
Rated o/p power tolerance	+/- 3%
Rated for wind loads	up to 2,400 Pa

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Operating temperature

-40°C to 85°C

5.0 IDENTIFICATION AND TRACEABILITY

Modules deployed must use a RF identification tag. The following information must be mentioned in the RF ID used on each module (This can be inside or outside the laminate but must be able to withstand harsh environmental conditions).

- i Name of the manufacturer of the PV module
- ii Name of the manufacturer of Solar Cells.
- iii Month & year of the manufacture (separate for solar cells and modules)
- iv Country of origin (separately for solar cells and module)
- v I-V curve for the module Wattage, I_m , V_m and FF for the module
- vi Unique Serial No and Model No of the module
- vii Date and year of obtaining IEC PV module qualification certificate.
- viii Name of the test lab issuing IEC certificate.
- ix Other relevant information on traceability of solar cells and module as per ISO 9001 and ISO 14001

6.0 ARRAY/ MOUNTINGSTRUCTURE

- a) Hot dip galvanized Iron mounting structures may be used for mounting the modules / panels /arrays. Each structure should have angle of inclination as per the site conditions to take maximum insulation. However to accommodate more capacity the angle inclination may be reduced until the plant meets the specified performance ratio requirements.
- b) The Mounting structure shall be so designed to withstand the speed for the wind zone of the location where a PV system is proposed to be installed wind speed of 150 km/ hour. It may be ensured that the design has been certified by a recognized Lab/ Institution in this regard and submit wind loading calculation sheet to Bank. Suitable fastening arrangement such as calming should be provided to secure the installation against the specific wind speed. We will not allow to do grounding to the terrace and take support from the parapet will
- c) The mounting structure steel shall be as per latest IS 2062: 1992 and galvanization of the mounting structure shall be in compliance of latest IS 4759.
- d) Structural material shall be corrosion resistant and electrolytically compatible with the materials used in the module frame, its fasteners, nuts and bolts. Necessary protection towards rusting need to be provided either by coating or anodization.
- e) The fasteners used should be made up of stainless steel. The structures shall be designed to allow easy replacement of any module. The array structure shall be so designed that it will occupy minimum space without sacrificing the output from the SPV panels

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- f) Regarding civil structures the bidder need to take care of the load bearing capacity of the roof and need arrange suitable structures based on the quality of roof.
- g) The total load of the structure (when installed with PV modules) on the terrace should be less than 60 kg/m².
- h) The minimum clearance of the structure from the roof level should be 300 mm.
- i) USE SS bolts and couplers for jointing of array and fixing the modules on the array.

7.0 JUNCTION BOXES(JBs)

- a) The junction boxes are to be provided in the PV array for termination of connecting cables. The J.Boxes (JBs) shall be made of FRP/Powder Coated Aluminum. All wires/cables must be terminated through cable lugs. The JB's shall be such that input & output termination can be made through suitable weather proof cable glands.
 - b) Copper bus bars/terminal blocks housed in the junction box with suitable termination threads conforming to IP65 standard and IEC 62208 Hinged door with EPDM rubber gasket to prevent water entry.
 - c) Each Junction Box shall have High Quality Suitable Capacity Metal Oxide Varistors (MOVs) / SPDs, suitable Reverse Blocking Diodes. The Junction Boxes shall have suitable arrangement monitoring and disconnection for each of the groups.
- 8 Suitable markings shall be provided on the bus bar for easy identification and the cable ferrules must be fitted at the cable termination points for identification

8.0 DC DISTRIBUTIONBOARD:

1. DC DPBs shall have sheet from enclosure of dust & vermin proof conform to IP65 protection and compatible for MC4 connectors. The bus bars are made of copper of desired size. Suitable capacity MCBs/MCCB shall be provided for controlling the DC power output to the PCU along with necessary surge arrestors (DC surge protection device (SPD), class 2 as per IEC 60364-5-53). If a DC isolator is used instead of a DC circuit breaker, a DC fuse shall be installed inside the DC Distribution Box to protect the DC cable that runs from the DC Distribution Box to the Solar Grid Inverter.

a. AC DISTRIBUTION PANELBOARD:

- 1. AC Distribution Panel Board (DPB) shall have necessary surge arrestors. Inter connection from ACDB to mains at LT Bus bar while in grid tied mode.
- 2. All the termination works related to changeover switches; cabling work should be undertaken by the bidder as part of the project.
- 3. All the Panel's shall be metal clad, totally enclosed, rigid, floor mounted, air - insulated, cubical type suitable for operation on three phase / single phase, 415 or 230 volts, 50Hz.
- 4. The panels shall be designed for minimum expected ambient temperature of 45degree Celsius, 80 percent humidity and dusty weather.
- 5. All indoor panels will have protection of IP54 or better. All outdoor panels will have protection of IP65 or better.
- 6. Should conform to Indian Electricity Act and rules (till last amendment).
- 7. All the 415 V AC or 230 volts' devices / equipment like bus support insulators, circuit breakers, SPDs, VTs etc., mounted inside the switchgear shall be suitable for continuous operation and satisfactory performance under the following supply conditions

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Variation in supply voltage	+/- 10 %
Variation in supply frequency	+/- 3 Hz

8.0 PCU/ARRAY SIZE RATIO:

- The combined wattage of all inverters should not be less than rated capacity of power plant under STC.
- Maximum power point tracker shall be integrated in the PCU/inverter to maximize energy drawn from the array.

9.0 PCU / Inverter:

The PCU including MPPT (Maximum Power Point Tracker), an interface between Solar PV array & the Inverter, to the power conditioning unit / inverter should also be DG set interactive. If necessary, Inverter output should be compatible with the grid frequency. Typical technical features of the inverter shall be as follows:

□ Switching devices	: IGBT/MOSFET
□ Control	: Microprocessor /DSP
□ Nominal AC output voltage and frequency	: 415V, 3 Phase, 50 Hz
□ Grid Frequency Synchronization range	: + 3 Hz or more
□ Ambient temperature considered	: 20° C to 50° C
□ Humidity	: 95 % Non-condensing
□ Protection of Enclosure	: IP-20(Minimum) for indoor. : IP-65(Minimum) for outdoor.
□ Grid Frequency Tolerance range	: + 3 or more
□ Grid Voltage tolerance	: - 20% & + 15 %
□ No-load losses	: Less than 1% of rated power
□ Inverter efficiency(minimum)	: >93% (In case of 10kW or above)
□ THD	: < 3%
□ PF	: > 0.9
□ Display type	: LCD for data display. LCD / LED for status display
Communication interface	: RS 485 / RS 232 / RJ45

- PCU/inverter shall be capable of complete automatic operation including wake-up, synchronization & shutdown.
- The output of power factor of PCU inverter is suitable for all voltage ranges or sink of reactive power, inverter should have internal protection arrangement against any sustainable fault in feeder line and against the lightning on feeder.
- The PCU/ inverters should be tested from the MNRE approved test centers / NABL /BIS /IEC accredited testing- calibration laboratories. In case of imported power conditioning units, these should be approved by international test houses.
- Built-in meter and data logger to monitor plant performance through external computer shall be provided.
- The power conditioning units / inverters should comply with applicable IEC/ equivalent BIS standard for efficiency measurements and environmental tests as per standard codes IEC 61683/IS 61683 and IEC 60068-2(1,2,14,30) /Equivalent BIS Std.

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- vi. The charge controller (if any) / MPPT units environmental testing should qualify IEC 60068-2(1, 2, 14, 30)/Equivalent BIS std. The junction boxes/ enclosures should be IP 65(for outdoor)/ IP 54 (indoor) and as per IEC 529 specifications.

10.0 DATA ACQUISITION SYSTEM / PLANT MONITORING

1. Built-in meter and data logger to monitor plant performance through external computer (IoT) shall be provided for each of the solar PV plant.
2. **Solar Irradiance:** An integrating Pyranometer / Solar cell-based irradiation sensor (along with calibration certificate) provided, with the sensor mounted in the plane of the array. Readout integrated with data logging system.
3. **Temperature:** Temperature probes for recording the Solar panel temperature and/or ambient temperature to be provided complete with readouts integrated with the data logging system.
4. **Electrical Energy:** Digital Energy Meters to log the actual value of AC/ DC voltage, Current & Energy generated by the PV system provided. The following parameters are accessible via the operating interface display in real time separately for solar power plant:
 - i. AC Output current.
 - ii. AC Voltage.
 - iii. Output Power
 - iv. Power factor.
 - v. DC Input Voltage.
 - vi. DC Input Current.
 - vii. Time Active.
 - viii. Time disabled.
 - ix. Time Idle.
 - x. Power produced and feed-in
 - xi. Protective function limits (Viz-AC Over voltage, AC Under voltage, Over frequency, Under frequency ground fault, PV starting voltage, PV stopping voltage).
5. All major parameters available on the digital bus and logging facility for energy auditing through the internal microprocessor and read on the digital front panel at any time) and logging facility (the current values, previous values for up to 6 months and the average values) should be made available for energy auditing through the internal microprocessor and should be read on the digital front panel.
6. Computerized DC String / Array monitoring and AC output monitoring shall be provided as part of the inverter and /or string / array combiner box or separately. String and array DC Voltage, Current and Power, Inverter AC output voltage and current (All 3 phases and lines), AC power (Active, Reactive and Apparent), Power Factor and AC energy (All 3 phases and cumulative) and frequency shall be monitored.
7. Computerized AC energy monitoring shall be in addition to the digital AC energy meter. The data shall be recorded in a common work sheet chronologically date wise. The data file shall be MS Excel compatible. The data shall be represented in both tabular and graphical form.
8. All instantaneous data shall be shown on the computer screen. Software shall be provided for USB/ internet

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download and analysis of DC and AC parametric data for individual plant.

9. Remote Monitoring and data acquisition through Remote Monitoring System software at the owner / CRGB location with latest software/hardware configuration and service connectivity for online / real time data monitoring/control complete to be supplied and operation and maintenance / control to be ensured by the supplier. Provision for interfacing these data on CRGB server and portal in future shall be kept.

11.0 CABLES

Cables of appropriate size to be used in the system shall have the following characteristics:

- i Temp. Range: -10°C to $+80^{\circ}\text{C}$.
- ii Voltage rating 1100V grade
- iii Flexible and excellent resistance to fire (FRLS), heat, cold, water, oil, abrasion, UV radiation.
- iv Sizes of cables between array interconnections, array to junction boxes, junction boxes to In-verter etc. shall be so selected to keep the voltage drop (power loss) of the entire solar system to the minimum. The cables (as per IS) should be insulated with a special grade PVC compound formulated for outdoor use.
- v Cable Routing/ Marking: All cable/wires are to be routed in a GI cable tray and suitably tagged and marked with proper manner by good quality ferrule or by other means so that the cable easily identified.
- vi The Cable should be so selected that it should be compatible up to the life of the solar PV panels
i.e. 25 years.
- vii Multi Strand, Annealed high conductivity copper conductor PVC type 'A' pressure extruded insulation or XLPE insulation. Overall PVC/XLPE insulation for UV protection Armored cable for underground laying. All cable trays including covers to be provided. All cables conform to latest edition of IEC/ equivalent BIS Standards as specified elsewhere in this document.
- viii The size of each type of DC cable selected shall be based on minimum voltage drop however; the maximum drop shall be limited to 1%.
- ix The size of each type of AC cable selected shall be based on minimum voltage drop however; the maximum drop shall be limited to 2%.

12.0 CONNECTIVITY

The maximum capacity for interconnection with the grid at a specific voltage level shall be as specified in the Distribution Code/Supply Code of the State and amended from time to time. Utilities may have voltage levels other than standard ratings, DISCOMS may be consulted before finalization of the voltage level and specification be made accordingly.

13.0 METERING:

1. The bi directional electronic energy meter(0.5Sclass)shall be installed for the measurement of import/Export of energy.
2. The bidder must take approval /NOC from the Concerned DISCOM for the connectivity, technical feasibility, and synchronization of SPV plant with distribution network and submit the same to CRGB before commissioning of SPV plant.
3. Reverse power relay shall be provided by bidder (if necessary), as per the local DISCOM requirement.

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14.0 INTEGRATION OF PV POWER WITH GRID:

The output power from the inverters feeds it into the main electricity grid after synchronization. In case of grid failure, or low or high voltage, solar PV system shall be out of synchronization and shall be disconnected from the grid. 4 pole isolation of inverter output with respect to the grid/ DG power connection need to be provided.

For buildings or loads with diesel generator backup, the wiring of the solar grid inverter shall be such that the solar grid inverter cannot run in parallel with the diesel generator. This implies that the solar grid inverter must be connected to a distribution board on the grid side of the automatic or manual change-over switch as shown in typical wiring diagram.

Metering and grid connectivity of the roof top solar PV system under this scheme would be the responsibility of the Bidder in accordance with the prevailing guidelines of the concerned DISCOM and / or CEA (if available by the time of implementation). CRGB could facilitate connectivity; however, the entire responsibility lies with bidder only.

15.0 POWER CONSUMPTION:

Regarding the generated power consumption, Total power generated shall be utilized by CRGB, priority shall be given for internal consumption and thereafter any excess power shall be exported to grid. Calibrated Energy meter at the feed-in point shall be installed by the successful bidder for cumulative power consumption reading. Decisions of appropriate authority like DISCOM, state regulator may be followed.

16.0 PROTECTIONS

The system should be provided with all necessary protections like earthing, Lightning, and grid is landing as follows:

16.1 LIGHTNING PROTECTION

The SPV power plants shall be provided with lightning & overvoltage protection. The main aim in this protection shall be to reduce the over voltage to a tolerable value before it reaches the PV or other sub system components. The source of over voltage can be lightning, atmosphere disturbances etc. The entire space occupying the SPV array shall be suitably protected against Lightning by deploying required number of Lightning Arrestors (not to use existing lightening arrestors of the building). Lightning protection should be provided as per IEC 62305 standard. The protection against induced high-voltages shall be provided by using the metal oxide varistors (MOVs) and suitable earthing such that induced transients find an alternate route to earth.

16.2 SURGE PROTECTION

Internal surge protection shall consist of "3" MOV type effective surge-arrestors connected from +ve and -ve terminals to earth (via Y arrangement). Any damage of the CRGB appliances due to surge protection failure shall be the responsibility of successful bidder.

16.3 EARTHING PROTECTION

1. Each array structure of the PV yard should be grounded / earthed properly as per IS:3043-1987. In addition, the lightning arrester/masts should also be earthed inside the array field. Earth Resistance shall be tested in presence of the representative of CRGB as and when required after earthing by calibrated earth tester. PCU, ACDB and DCDB should also be double earthed properly.
2. Earth resistance shall not be more than 1 ohm. It shall be ensured that all the earthing points are bonded

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together (interlinked) to make them at the same potential.

16.4 GRID ISLANDING PROTECTION

In the event of a power failure on the electric grid, it is required that any independent power-producing inverters attached to the grid turn off for a short period of time. This prevents the DC-to-AC inverters from continuing to feed power into small sections of the grid, known as "islands."

The rooftop PV system shall be equipped with islanding protection. In addition to disconnection from the grid (due to islanding protection) disconnection due to under and over voltage conditions shall also be provided.

A manual disconnect 4pole isolation switch beside automatic disconnection to grid would have to be provided at utility end to isolate the grid connection by the utility personnel to carry out any maintenance. This switch shall be locked by the utility personnel.

18.0 TOOLS & TACKLES AND SPARES:

A list of requisite spares in case of PCU/inverter comprising of a set of control logic cards, IGBT driver cards etc. Junction Boxes. Fuses, MOVs / arrestors, MCCBs etc along with spare set of PV modules be indicated, which shall be supplied along with the equipment. A minimum set of spares shall be maintained in the plant itself for the entire period of warranty and Operation & Maintenance which upon its use shall be replenished.

19.0 DANGER BOARDS AND SIGNAGES:

Danger boards should be provided as and where necessary as per IE Act. /IE rules as amended up to date. Three signage shall be provided one each at battery –cum- control room, solar array area and main entry from administrative block. Text of the signage may be finalized in consultation with CRGB/ owner.

20.0 FIRE EXTINGUISHERS:

The firefighting system for the proposed power plant for fire protection shall be consisting of:

- a) Portable fire extinguishers in the control room for fire caused by electrical short circuits
- b) Sand buckets in the control room

The installation of Fire Extinguishers should conform to TAC regulations and BIS standards. The fire extinguishers shall be provided in the control room housing PCUs as well as on the Roof or site where the PV arrays have been installed.

23.0 SAFETY MEASURES:

The bidder shall take entire responsibility for electrical safety of the installation(s) including connectivity with the grid and follow all the safety rules & regulations applicable as per Electricity Act, 2003 and CEA guidelines etc.

24.0 OPERATION & MAINTENANCE (O&M)

The bidder shall be responsible for Operation and Maintenance of the Roof top Solar PV system for a period of 25 years (or) time period up to the transfer of ownership to CRGB, during which CRGB will monitor the project for effective performance in line with conditions specified elsewhere in the bid document.

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26.0 ACTION WHERE THERE IS NO SPECIFICATION

In case of any class of work for which there is no specification mentioned, the same will be carried out in accordance with the Indian Standards Specifications (IS)/ MNRE/ NISE/ BEE standards subject to the approval of the Bank

27.0 TEST CERTIFICATES AND REPORTS TO BE FURNISHED

Test Certificates / Reports from IECQ / NABL accredited laboratory for relevant IEC / equivalent BIS standard for quoted components shall be furnished. Type Test Certificates shall be provided for the solar modules and the solar grid inverter to provide evidence of compliance with standards as specified by Ministry of New and Renewable Energy (MNRE). Bank reserves the right to ask for additional test certificates or (random) tests to establish compliance with the specified standards.

28.0 CONFIRMATION TO MNRE TECHNICAL SPECIFICATIONS AND STANDARDS

The Tenderer should ensure that all components and systems used under this Scheme shall strictly adhere to the Technical Specifications and Guidelines issued by MNRE , and as amended from time to time.

QUALITY CERTIFICATION, STANDARDS AND TESTING FOR GRID-CONNECTED ROOFTOP SOLAR PV SYSTEMS/ POWER PLANTS

Quality certification and standards for grid-connected rooftop solar PV systems are essential for the implementation of this technology. Hence, all components of grid-connected rooftop solar PV system/ plant must conform to the relevant standards and certifications given below:

Solar PV Modules/ Panels	
IEC 61215/ IS 14286	Design Qualification and Type Approval for Crystalline Silicon Ter- restrial Photovoltaic (PV) Modules
IEC 61646 / Equivalent IS (Under Dev.)	Thin Film Terrestrial PV Modules
IEC 62108	Concentrator PV Modules & Assemblies
IEC 61701	Salt Mist Corrosion Testing of Photovoltaic (PV) Modules
IEC 61853- Part 1/ IS 16170: Part 1	Photovoltaic (PV) module performance testing and energy rating –: Irradiance and temperature performance measurements, and power rating
IEC 62716	Photovoltaic (PV) Modules – Ammonia (NH3) Corrosion Testing (As per the site condition like dairies, toilets)
IEC 61730-1,2	Photovoltaic (PV) Module Safety Qualification – Part 1: Require-ments for Construction, Part 2: Requirements for Testing
Solar PV Inverters	
IEC 62109-1, IEC 62109-2	Safety of power converters for use in photovoltaic power systems – Part 1: General requirements, and Safety of power converters for use in photovoltaic power systems Part 2: Particular requirement for inverters. Safety compliance (Protection degree IP 65 for outdoor mounting, IP 54 for indoor mounting)
IEC/IS 61683 (as applicable)	Photovoltaic Systems – Power conditioners: Procedure for Measur- ing Efficiency (10%, 25%, 50%, 75% & 90-100% Loading Condi- tions)

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IEC 62116/ UL 1741/ IEEE 1547 (as applicable)	Utility-interconnected Photovoltaic Inverters - Test Procedure of Is-landing Prevention Measures
IEC 60255-27	Measuring relays and protection equipment – Part 27: Product safety requirements
IEC 60068-2 / IEC 62093 (as applicable)	Environmental Testing of PV System – Power Conditioners and In-verters
Fuses	
IS/IEC 60947 (Part 1, 2 & 3), EN 50521	General safety requirements for connectors, switches, circuit breakers (AC/DC): a) Low-voltage Switchgear and Control-gear, Part 1: General rules b) Low-Voltage Switchgear and Control-gear, Part 2: Circuit Break-ers c) Low-voltage switchgear and Control-gear, Part 3: Switches, dis-connectors, switch-dis-connectors and fuse-combination units d) EN 50521: Connectors for photovoltaic systems – Safety requirements and tests
IEC 60269-6	Low-voltage fuses - Part 6: Supplementary requirements for fuse-links for the protection of solar photovoltaic energy systems
Surge Arrestors	
BFC 17-102:2011	Lightening Protection Standard
IEC 60364-5-53/ IS 15086-5 (SPD)	Electrical installations of buildings - Part 5-53: Selection and erection of electrical equipment - Isolation, switching and control
IEC 61643-11:2011	Low-voltage surge protective devices - Part 11: Surge protective devices connected to low-voltage power systems - Requirements and test methods
Cables	
IEC 60227/IS 694, IEC 60502/IS 1554 (Part 1 & 2)/ IEC69947 (as applicable)	General test and measuring method for PVC (Polyvinyl chloride) insulated cables (for working voltages up to and including 1100 V, and UV resistant for outdoor installation)
BS EN 50618	Electric cables for photovoltaic systems
(BT(DE/NOT)258)	mainly for DC Cables
Earthing/ Lightning	
IEC 62561	Series (Chemical earthing) (as applicable)
IEC 62561-1	Lightning protection system components (LPSC) - Part 1: Require-ments for connection components
IEC 62561-2	Lightning protection system components (LPSC) - Part 2: Require-ments for conductors and earth electrodes
IEC 62561-7	Lightning protection system components (LPSC) - Part 7: Require-ments for earthing enhancing compounds
Junction Boxes	
IEC 60529 IEC 529	Junction boxes and solar panel terminal boxes shall be of the thermoplastic type with IP 65 protection for outdoor use, and IP 54 protection for indoor use
Energy Meter	
IS 16444 or as specified by the DISCOMs	A.C. Static direct connected watt-hour Smart Meter Class 1 and 2 —Specification (with Import & Export/Net energy measurements)

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Solar PV Roof Mounting Structure	
IS 2062/IS 4759	Material for the structure mounting
IEC 62548	PV arrays – Design requirements

QUALITY STANDARDS AND CERTIFICATIONS FOR A GRID-CONNECTED ROOFTOP SOLAR PV SYSTEM

Equivalent standards may be used for different components of the systems. In case of clarification, the following organizations/ agencies may be contacted:

- Ministry of New and Renewable Energy(MNRE)
- National Institute of Solar Energy(NISE)
- The Energy and Resources Institute(TERI)
- TUV Rheinland
- UL

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SCHEDULE OF APPROXIMATE QUANTITIES AND RATE

1. The quantities given herein are those upon which the lumpsum cost of the work is based. They are subjected to alterations omissions, deductions or additions as provided for in the conditions of this contract and do not necessarily show the actual quantities of the work to be done. The unit rate noted below are those governing payment of extras or deductions for omissions, according to the conditions of the contract as set forth in the preliminary specifications of the Chhattisgarh state. detailed standard specifications and other conditions or specifications of this contract.
2. It is to be expressly understood that the measured work is to be taken net (notwithstanding) any custom or practice to the contrary according to the actual quantities when in place and finished according to the drawings or as may be directed from time to time by the Architects, and the cost calculated by measurements or weight, at the respective prices, without any additional charge for any necessary or contingent works connected there with. The rates quoted are for work in site and complete in every respects.
3. If any operation of work, which is specified in the respective items mentioned in the schedule of quantities, is not executed by the contractor then proportionately the rate quoted in the schedule shall be refixed.

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SAFETY CODE

Scaffolds:

- 1 Suitable scaffolds should be provided for workmen for all works that cannot safely be done from the ground, or from solid construction except such short period work as can be done safely from ladders. When a ladder is used an extra mazdoor shall be engaged for holding the ladder and if the ladder is used for carrying material as well, suitable footholds and hand holds shall be provided on the ladder and the ladder shall be given an inclination not steeper than 1/4 to 1 (1/4 horizontal and 1 vertical)
- 2 Scaffolding or staging more than 4m. above the ground or floor, swung or suspended from an overhead support or erected with stationary support shall have a guard rail properly attached bolted, braced and otherwise secured at least 3 feet high above the floor or platform of such scaffoldings or staging and extending along the entire length of the outside and ends thereof with only such opening as may be necessary for the delivery of materials. Such scaffolding or staging shall be so fastened as to prevent it from swaying from the building or structure.
- 3 Working platform, gangways, and stairways should be so constructed that they should not sag unduly or unequally, and if the height of the platform or the gangway or the stairway is more than 3.6m above the ground level on the floor level. They shall be closely boarded, should have adequate width and should be suitably fastened, as described in (ii) above.
- 4 Every opening in the floor of a building or in a working platform be provided with suitable means to prevent the fall of persons or materials by providing suitable fencing or railing whose minimum height shall be 1m. Wherever there are open excavations in ground, they shall be fenced off by suitable railing and danger signals installed at night so as to prevent persons slipping into the excavations.
- 5 Safe means of access shall be provided to all working platforms and the working places. Every ladder shall be securely fixed. No portable single ladder shall be over 9 m. in length while the width between side rail in rung ladder width shall in no case be less than 290mm. for ladder upto and including 3m. in length. For longer ladders this width should be increased at least 20mm. for each additional meter or length.
- 6 A sketch of the ladders and scaffolds proposed to be used shall be prepared and approval of the Engineer-in-charge obtained prior to construction.
- 7 All personnel of the Contractor working within the plant site shall be provided with safety helmets. All welders shall wear welding goggles while doing welding work and all metal workers shall be provided with safety gloves. Persons employed on metal cutting and grinding shall wear safety glasses.
- 8 Adequate precautions shall be taken to prevent danger from electrical equipment. No materials on any of the sites of work shall be so stacked or placed as to cause danger or inconvenience to any person or the public.
- 10 Excavation and Trenching:
 - 1 All trenches, 1.25m or more in depth, shall at all times be supplied with at least one ladder for each 30m in length or fraction thereof. Ladder shall be extended from bottom of the trench to at least 1m. above the surface of the ground. The side of the trench which are 1.5m or more shall be sloped back to give suitable slope or securely held by timber bracing, so as to avoid the dangers of sides to collapse. The excavated material shall not be placed within 1.5m. of the edges of the trench or half of the depth of the trench whichever is more. Cutting shall be done from top to bottom. Under no circumstances undermining or undercutting shall be done.

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2 The Contractor shall take all measures on the site of work to protect the public from accidents and shall be bound to bear the expenses of defence of every suit, action or other proceedings at law that may be brought by any person for injury sustained owing to neglect of the above precautions and to pay any such persons or which may with the consent of the Contractor, be paid to compromise any claim by any such person.

3 Demolition:

1 Before any demolition work is commenced and also during the process of the work.

All roads and open areas adjacent to work site shall either be closed or suitably protected;

2 No electric cable or apparatus which is liable to be a source of danger over a cable or apparatus used by the operator shall remain electrically charged.

3 All practical steps shall be taken to prevent danger to persons employed from risk of fire or explosion or flooding. No floor, roof or other part of the building shall be so overloaded with debris or materials as to render it unsafe.

4 Personal Safety Equipments:

1 All necessary personal safety equipment as considered adequately by the Engineer should be kept available for the use of the person employed on the site and maintained in a condition suitable for immediate use, and the Contractor should take adequate steps to ensure proper use of equipment by these concerned.

2 Worker employed on mixing asphaltic materials, cement and lime mortars shall be provided with protective footwear and protective goggles.

3 Those engaged in white washing and mixing or stacking of cement bags or any material which is injurious to the eyes shall be provided with protective goggles.

4 Stone breakers shall be provided with protective goggles and protective clothing and seated at sufficiently safe intervals.

5 When workers are employed in sewers and manholes, which are in use, the Contractor shall ensure that the manhole covers are opened and are ventilated at least for an hour before the workers are allowed to get into the manholes and manhole's so opened shall be cordoned off with suitable railing and provided with warning signals or boards to prevent accident to the public.

6 The Contractor shall not employ men below age of 18 years and women on the work of painting with products containing lead in any form. Where ever men above the age of 18 years are employed on the work of lead painting, the following precautions should be taken.

5 No paint containing lead or products shall be used except in the form of paste or readymade paint.

1 Overalls shall be supplied by Contractors to the workmen and adequate facilities shall be provided to enable the worker painters to wash during the cessation of work.

2. When the work is done near any place where there is risk of drowning, all necessary equipment should be provided and kept ready for use and all necessary steps taken for prompt rescue of any person in danger and adequate provision should be made for prompt first aid treatment of all injuries likely to be sustained during the course of the work

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6. Hoisting Machines:

1 Use of hoisting machines and tackle including their attachment, anchorage and supports shall conform to the following standards or conditions:

2 These shall be good mechanical construction, sound material and adequate strength and free from patent defect and shall be kept in good repair and in good working order.

3 Every rope used in hoisting or lowering materials or as a means of suspension shall be of durable quality and adequate strength, and free from patent defects.

4 Every crane driver or hoisting applications operator shall be properly qualified and no person under the age of 21 years should be in charge of any hoisting machine including any scaffolding which give signals to operator.

5 In case of every hoisting machine and of every chain, hook, shackle swivel and fully block used in hoisting or as means of suspension for safe workin load shall be ascertained by adequate means. Every hoisting machine and all gear referred to above shall be plainly marked with the safe working load. In case of a hoisting machine having a variable safe working load, each safe working load of the conditions under which it is applicable shall be clearly indicated. No part of any machine of any gear referred to above in this paragraph shall be loaded beyond the safe working load except for the purpose of testing.

6. In case of department machines, the safe working load shall be notices by the Engineer-in-Charge. As regards Contractors machines the Contractor shall notify the safe working load to the machine to the Engineer-in-Charge whenever he brings any machinery to site of work and get it verified by the Engineer-in-charge concerned.

7. Motors, gearing transmission, electric wiring and other dangerous parts of hoisting, appliances should be provided with efficient safe guards hoisting ap liances should be provided with such means as will reduce to the minimum the risk of acc dental decent of the load, adequate precautions should be taken to reduce to the minimum t e risk of any art of a suspended load becoming accidentally displaced. When workers employe on electrical installations which are already energized insulating mats, wearing apparel, such s gloves sleeves and boots as may be necessary should be provided. The workers should not we l' any rings, watches and carry keys or other materials which are good conductors of electricity.

All scaffolds, ladders and safety devices mentioned or described herein shall be maintained in safe condition and no scaffold, ladder or equipment shall be altered or removed while it is in use.

8. To ensure effective enforcement of the rules and regulations relating to safety precautions, the arrangements made by that Contractor shall be open to inspection by the Labour Officer, Engineer-in-Charge of the department or their representatives. Not withstanding the above clauses from 9.5.1 to 9.5.5 there is nothing in these to exempt the Contractor from the operation of any other Act or Rule in force in the Republic of India.

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MODEL RULES FOR THE PROTECTION OF HEALTH AND SANITARY ARRANGEMENTS FOR WORKERS EMPLOYED BY CONTRACTORS

1 Application:

These rules shall apply to the Contractor for TENDER FOR INSTALLATION OF 84KW(40KW ON PARKING AREA AND BALANCE ON ROOF TOP) SOLAR POWER SYSTEM FOR ENERGY CONSERVATION AT COPORATE OFFICE PLOT NO 47 SECTOR 24 IN ATAL NAGAR, NAYA RAIPUR ,CHHATTISGARH STATE.

2. "Work Place" means a place at which, at an average 50 or more workers are employed in connection with construction work.

3 "Large Work Place" means a place at which, at an average 500 or more workers are employed in connection with construction work.

2 First Aid:

1 At every work place, there shall be maintained in a readily accessible place first aid appliance including an adequate supply of sterilized dressings and sterilized cotton wool. The appliances shall be kept in good order and, in large work place they shall be placed under the charge of a responsible person who shall be readily available during the working hours.

2 At large work places, where hospital facilities are not available within easy distance of the work. First Aid post shall be established and be run by a trained compounder.

3 Where large work places are remote from regular hospitals, indoor ward shall be provided with one bed for every 250 employee.

4 Where large work places are situated in cities, in towns or in their suburbs and no beds are considered necessary owing to the proximity of city or town hospitals, suitable transport shall be provided to facilitate removal of urgent cases to the hospitals. At other work places, some conveyance facilities, such as a car, shall be kept readily available to take injured person or persons suddenly taken seriously ill to the nearest hospital.

3 Drinking Water:

1 In every work place, there shall be provided and maintained at suitable places easily accessible to labour, a sufficient supply of cold water fit for drinking.

2 Where drinking water is obtained from an intermittent public water supply, each work place be provided with storage where such drinking water shall be stored.

3 Every water supply storage shall be at a distance of not less than 15m. from any latrine, drain or other source of pollution. Where water has to be drawn from an existing well which is within such proximity of latrine, drain or any other source of pollution, the well shall be properly chlorinated before water is drawn from it for drinking. All such wells shall be entirely closed in and be provided with a trap door which shall be dust and water proof.

4 A reliable pump shall be fitted to each covered well the trap-door shall be kept locked and opened only for cleaning or inspection which shall be done at least once in a month.

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Washing and Bathing place:

Adequate washing and bathing places shall be provided, separately for men and women.

Such places shall be kept in clean and drained condition.

Scale of Accommodation in Latrines and Urinals:

There shall be provided within the precincts of every work place latrines and urinals in an accessible place, and the accommodation, separately for each for each of them, shall not be less than the following scale:

No. of Seats

Where the number of persons does not exceeds 50, 2

Where the number of persons exceeds 50
but does not exceed 100 3

For every additional 100 3 per 100

Latrines and Urinals for Women:

If women are employed separate latrine and urinals, screened from those of men and marked in the vernacular in conspicuous letter. "For Women Only" shall be provided on the scale laid in 6.0. Those for men shall be similarly marked "For Men Only". A poster showing the figure of a man and a woman shall also be exhibited at the entrance of latrines for each sex. There shall be adequate supply of water close to the urinals and latrines. laid in 6.0 Those for men shall be similarly marked "For Men Only". A poster showing the figure of a man and a woman shall also be exhibited at the entrance of latrines for each sex. There shall be adequate supply of water close to the urinals and latrines.

Latrines and Urinals:

Except in work places provided with water flushed latrines connected with a water borne sewerage system, all latrines shall be provided with receptacles on dry earth system which shall be cleaned at least four times daily and at least twice during working hours and kept in a strictly sanitary condition. The receptacles shall be tarred inside and outside at least once a year.

Construction of Latrines:

The inside walls shall be constructed of masonry or some suitable heat-resisting non-absorbent material and shall be cement-washed inside and outside at least once a year. The dates of cement washing shall be noted in a register maintained for the purpose and kept available for inspection. Latrines will not be of a standard lower than borne-hole system and should have thatched roofs.

Disposal of Excreta:

Unless otherwise arranged for by the local sanitary authority arrangements for proper disposal of excreta shall be made by septic tank or leach pit duly approved by the Engineer and in conformity with the requirements of local public health authorities.

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Provision of Shelters during rest:

At every work place there shall be provided, free of cost, two suitable sheds one for meals and the other for rest separately for men and women for the use of labour. The height of the shelter shall not be less than 11 feet from the floor-level to the lowest part of the roof. The sheds should be roofed with at least thatch and mud flooring will be provided with a dwarf wall around not less than 750mm. Sheds should be kept clean and the space should be on the basis of at least 0.50 Square meters per head.

Creches:

1 At every work place, at which 50 or more women workers are ordinarily employed there shall be provided two huts for the use of children under the age of 6 year belonging to such women. One hut shall be used for infant's games and play and the other as their bed-room. The huts shall not be constructed on a lower standard than the following:

- 1 Thatched roofs:
- 2 Mud floor and walls:
- 3 Planks - spread over the mud floor and covering matting.

The huts shall be provided with suitable and sufficient openings for light and ventilation. There shall be adequate provision of sweepers to keep the place clean. There shall be two ayahs in attendance. Sanitary utensils shall be provided to the satisfaction of the Health Officer of the area concerned. The use of the hut shall be restricted to children their attendants and mothers of the children.

2 Where the number of women workers is more than 25 but less than 50, the Contractor shall provide at least one hut and one ayah to look after the children of women workers.

3 The size of creche or creches shall vary according to the number of women workers.

4 The creches or creche shall be properly maintained and necessary equipment like toys, etc. shall be provided.

Canteen:

A cooked food canteen on a moderate scale shall be provided for the benefit of workers where ever it is considered expedient.

The above rule shall be incorporated in the contracts and in notices inviting tenders and shall form an integral part of the contract.

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LIST OF APPROVED MAKES & MATERIALS

SLNo	Equipment Name	Make
1.	SOLAR PANELS	ADANI/ Renew sys/ Vikram Solar/ BHEL/ Waaree Solar/ Trina Solar/ Goldi Green Technologies Pvt. Ltd/ Tata Power Solar Systems Ltd/BEL/REIL/HHV
2.	GRID-TIE STRING INVERTERS	ABB/ SMA/ FRONIUS / DELTA/ POWER ONE/SCHNEIDER/ GROWATT
3.	POWER CABLES	UNISTAR / FINOLEX/Polycab/KEI
4.	CONTROL CABLES	UNISTAR / LAPP/ FINOLEX/Polycab/KEI
5.	LT SWITCHGEAR	L&T / SIEMENS / SCHNEIDER/C&S/ LEGRAND
6.	STEEL MEMBERS	TATA / VIZAG STEEL/SAIL (Pre GI coating done)
7.	EARTHING/ LIGHTNING ARRESTER	ERICO / OBO BETTERMANN INDIA/ Citel /Erico / Dehnguard / Indelec / Inmbus / Liva
8.	WEATHER MONITORING STATION	KIPP & ZONNEN / EPPLEY / EKO INSTRUMENTS
9.	DC Cables	KEI/KEC/UNIVERSAL/NICCO/KEI
10.	SOLAR CHARGE CONTROLLER	MORNINGSTAR/SCHNEIDER/ BLUE SKY/ GENASUN/ MIDNITE SOLAR/ OUTBACK POWER/ MAGNUM ENERGY
11.	String Combiner Box	Robotina/Trinity Touch/Hensel/Cape Electric
<p>Important: Please Tick (/) the make of materials considered in the Tender.</p> <p>The vendor has to comply with all State & Central Government norms for choosing the make, supply and erection.</p>		

NOTE :

The contractor shall use only above mentioned materials approved by the Consultant. All other materials shall confirm to the specifications laid down. The tenderer shall take this into account while tendering rates / prices.

The Architect / Bank's Consultant Engineer has got every right to select any of the above Makes for the Project. However the samples of every material including all fixing accessories shall be got approved by Architect before Execution.

ALL MAKE SHALL BE CONFIRMING TO BIS ONLY.

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ABSTRACT OF GENERAL CONDITIONS OF CONTRACT

1	Name of the Work	TENDER FOR INSTALLATION OF 84KW(40KW ON PARKING AREA AND BALANCE ON ROOF TOP) SOLAR POWER SYSTEM FOR ENERGY CONSERVATION AT COPORATE OFFICE PLOT NO 47 SECTOR 24 IN ATAL NAGAR, NAYA RAIPUR ,CHHATTISGARH STATE.
2	Cost of application / tender document	Rs 2500.00 (TWO THOUSAND FIVE HUNDRED ONLY) drawn in favour of CRGB payable at Raipur Chhattisgarh SHALL BE PUT IN THE TECHNICAL BID
3	Time and last date of Submission of Tender	11/03/2024 Up to 2.00 PM
4	Place & Address for submission of tender / contact person / telephone no / e-mail add.	THE GENERAL MANAGER (admin), CHHATTISGARH RAJYA GRAMIN BANK, CORPORATE OFFICE,PLOT NO 47 SECTOR 24 NAYA RAIPUR CHHATTISGARH ph no 0771-4388828/29/30 Pin .492013.
5	Date,Time and Place of Opening of tenders (Price Bid on _____). Contact person details: Name _____ Contact no: _____	Technical Bid opening : 11/03/2024, 3.00 PM. In the office of THE GENERAL MANAGER (admin), CHHATTISGARH RAJYA GRAMIN BANK, CORPORATE OFFICE,PLOT NO 47,SECTOR 24 ATAL NAGAR NAYA RAIPUR CHHATTISGARH Pin .492018. Price bids shall be opened Separately and the date of opening shall be Informed to all tenderers.
6	Quantum of Earnest Money Deposit (EMD) Rs _____ drawn in favour of _____ payable at _____ (to be payable along with tender bid)	Rs 55,000.00 drawn in favour of CRGB payable at Raipur Chhattisgarh or MSME OR NSIC certificates of approved relavant trade.
6b	Initial Security Deposit (ISD) (payable by L1 bidder after award of the work)	2% of value of the tender value including EMD paid along with the tender, but not exceeding Rs 10 lakhs. ISD is payable within 14 days of award of the work. EMD and ISD shall be refunded after completion of the work. EMD and ISD shall be paid by DD/BC or by Bank Guarantees by any nationalized bank or than CRGB .
7	Quantum of Retention Money	Deductible in running bills: 8.0 % of the value of each interim bill and total deductible as detailed in the tender document.
8	Terms of payment of Bills, if any. Specify	Interim bills or periodical running bills on

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	the minimum value of work for payment of running account bills.	satisfactory completion of minimum value of work of RS 25,00,000. 00 (Rupees Twenty Five Lakhs only) excluding security advance on materials. No advance or mobilization advance shall be paid in any circumstances.
9	Liquidated Damages (penalty clause)	In case of delay a penalty @ the rate of 0.5% of estimated cost per week subject to a maximum of 5 % of accepted contract sum but not exceeding the Total Security deposit. (ISD plus Retention Money) would be strictly imposed.
10	Stipulated time for completion of the work	4 months from date of handing over site
11	Estimated Value of tender / project	54.60 Lakhs
12	Validity period of the tender.	90 days from opening (Price Bid)
13	Taxes	I.T will be deducted at source as per the Norms and GST will be paid as applicable.
14	Electronic Payment	Payment shall be made through Electronic modality. Contractor should feasible the followings details 1. Name of the Bank, 2. Name of the Branch, 3. A/c No, 4. IFSC Code.
15	Submission of Work Program in the form of Gantt Chart / Bar Chart / PMP	7 days from the date of Acceptance letter.
16	Insurance of the Work	Before Commencement of the Work (CAR Policy) and Third party policy
17	Date of Commencement	Two weeks from the date of the acceptance letter or the day on which the contractor is taking possession of the site, whichever is earlier.
18	Period for Certification of interim bills by the Architect	15 days from the date of Receipt of the bill by the Architect
19	Period for Honoring interim Certificates issued by the Architect	15 days from the date of Receipt of the Certificate from the Architect.
20	Period for Honoring Final Certificates issued by the Architect	6 weeks from the date of Receipt of the final Certificate from the Architect.
21	Period of Certificate of Final bill by Architect	30 days from the date of Receipt of bill by the Architect.
22	Period of Settlement of Final Bill by the Bank	3 months from the date of issue of certificate by the Architect.
23	Defect Liability Period	12 months from the certified date of handing over of the building and issue of Virtual Completion certificate by the Architect, whichever is later.
24	Release of Initial Security Deposit	After Satisfactory Virtual completion and Certification of Final Bill.

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25	Release of Retention Money in 2 Parts	50% of the Retention amount is refunded on issue of Virtual Completion certificate by the Architect, Balance 50% will be refunded 14 days after defect liability period provided all defects are attended satisfactorily in accordance with snag list issued. Apart from defective work replacement the efficiency of the Solar system installed will be assessed based on the generation at the rate of 4 to 4.5 Units per 1Kw per day. The balance 50% Retention money will be refunded after 1 year from the date of installation and commissioning based on the norm of Generation of 4 to 4.5 Units per 1Kw per day.
26	Pre Bid Meeting for Technical Clarifications	Pre Bid Meeting for Technical Clarifications will be held on 01/03/2024 AT 3.00 PM CRGB Corporate Office PLOT NO 47 ,SECTOR 24 NAYA RAIPUR CHHATISGARH beside Punjab national bank Regional office.

**SIGNATURE OF THE CONTRACTOR
WITH DATE**

**WITNESS:
DATE:**

Signature of contractor

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DECLARATION

I/We have inspected the site of works and have made me / us fully acquainted with the local conditions in and around the sites of works. I/We hereby declare that I/We have gone through the conditions laid down in the Notice Inviting Tender, Conditions of Contract, Technical Specifications and understood the same and on the basis of the same I/We quoted our rates in the Schedule of Quantities attached with the tender documents.

I/We shall also uniformly maintain such progress as may be directed by the Employer / Architect to ensure completion of same within the target date as mentioned in the tender document.

Witness:

Signature of Tender

Address_____

Date:_____

NOTE :

ALL TECHNICAL CLARIFICATIONS IF ANY SHOULD FORM A PART OF TECHNICAL BID. TECHNICAL CLARIFICATIONS AFTER OPENING OF THE TENDERS WILL NOT BE ENTERTAINED AT ANY COST.

CONDITIONAL TENDERS WILL BE SUMMARILY REJECTED.

Signature of contractor

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BILL OF QUANTITIES OF SOLAR POWER WORKS FOR CRGB HEAD OFFICE AT NAYA RAIPUR CHHATTISGARH STATE.					
S.NO	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
1	SOLAR ON BUILDING ROOF (HO & STC BUILDINGS) INCLUDING REQUIRED FRAME WORK				
	<p>Supply, Installation, testing and commissioning of Approx 30KWp ON GRID rooftop Solar Power Plant WITH NET METERING at Naya Raipur, Chhattisgarh. The scope of work includes</p> <p>a) Supporting Frame shall be Pre GI MS Steel of 80mm X 40mm X 3mm thk of approved make on both ways horizontally and vertically and the supporting frame work of stands shall be embeded concrete blocks.</p> <p>b) Supply & Installation of Bi-directional meter.</p> <p>c) Submission of monthly reports to respective Offices.* *(Including warranty period of 5 years)</p> <p>Roof Top Solar (RTS) Photo Voltaic (PV) system shall consist of following equipment/components:</p> <ol style="list-style-type: none"> 1. Solar Photo Voltaic (SPV) modules consisting of required number of Crystalline PV modules should be in the range of 500 - 650 Watts. 2. Inverter/PCU (2 NOS) 3. Module Mounting structures 4. Energy Meter 5. Array Junction Boxes 6. DC Distribution Box 7. AC Distribution Box 8. Protections – Individual Earthing, Lightning and Surge protection 9. Cables 10. Shop Drawing & Manuals 11. Miscellaneous 12. Each Inverter should be controlled by the App and Vendor should provide the same. Necessary SIM should be provided by the Vendor. <p>NOTE : ON HO BUILDING TERRACE 20KW and ON STC BUILDING TERRACE 10KW.</p>	KWp	30		

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2	SOLAR ON HEAD ROOM ROOF (HO & STC BUILDINGS) INCLUDING REQUIRED FRAME WORK				
	<p>Supply, Installation, testing and commissioning of Approx 10KWp ON GRID rooftop Solar Power Plant WITH NET METERING at Naya Raipur, Chhattisgarh. The scope of work includes</p> <p>a) Supporting Frame shall be Pre GI MS Steel of 80mm X 40mm X 3mm thk of approved make on both ways horizontally and vertically and the supporting frame work of stands shall be embeded concrete blocks.</p> <p>b) Supply & Installation of Bi-directional meter.</p> <p>c) Submission of monthly reports to respective Offices.* *(Including warranty period of 5 years)</p> <p>Roof Top Solar (RTS) Photo Voltaic (PV) system shall consist of following equipment/components:</p> <ol style="list-style-type: none"> 1. Solar Photo Voltaic (SPV) modules consisting of required number of Crystalline PV modules should be in the range of 500 - 650 Watts. 2. Inverter/PCU 3. Module Mounting structures 4. Energy Meter 5. Array Junction Boxes 6. DC Distribution Box 7. AC Distribution Box 8. Protections – Individual Earthing, Lightning and Surge protection 9. Cables 10. Shop Drawing & Manuals 11. Miscellaneous 12. Each Inverter should be controlled by the App and Vendor should provide the same. Necessary SIM should be provided by the Vendor. <p>NOTE : ON HO BUILDING HEAD ROOM 5KW and ON STC BUILDING HEADROOM 5KW.</p>	KWp	10		

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3	SOLAR ON CONNECTING BRIDGE INCLUDING REQUIRED FRAME WORK				
	<p>Supply, Installation, testing and commissioning of Approx 4KWp ON GRID rooftop Solar Power Plant WITH NET METERING at Naya Raipur, Chhattisgarh. The scope of work includes</p> <p>a) Supporting Frame shall be Pre GI MS Steel of 80mm X 40mm X 3mm thk of approved make on both ways horizontally.</p> <p>b) Supply & Installation of Bi-directional meter.</p> <p>c) Submission of monthly reports to respective Offices.* *(Including warranty period of 5 years)</p> <p>Roof Top Solar (RTS) Photo Voltaic (PV) system shall consist of following equipment/components:</p> <ol style="list-style-type: none"> 1. Solar Photo Voltaic (SPV) modules consisting of required number of Crystalline PV modules should be in the range of 500 - 650 Watts. 2. Inverter/PCU (1 NOS) 3. Module Mounting structures 4. Energy Meter 5. Array Junction Boxes 6. DC Distribution Box 7. AC Distribution Box 8. Protections – Individual Earthing, Lightning and Surge protection 9. Cables 10. Shop Drawing & Manuals 11. Miscellaneous 12. Each Inverter should be controlled by the App and Vendor should provide the same. Necessary SIM should be provided by the Vendor. 	KWp	4		

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4	SOLAR ON PARKING SHED'S, FIRE PUMP ROOM SHED & BACK SIDE PARKING AREA INCLUDING REQUIRED FRAME WORK				
	<p>Supply, Installation, testing and commissioning of Approx 40KWp ON GRID rooftop Solar Power Plant WITH NET METERING at Naya Raipur, Chhattisgarh.</p> <p>The scope of work includes</p> <p>a) Supporting Frame shall be Pre GI MS Steel of 80mm X 40mm X 3mm thk of approved make on both ways horizontally.</p> <p>b) Supply & Installation of Bi-directional meter.</p> <p>c) Submission of monthly reports to respective Offices.*</p> <p>*(Including warranty period of 5 years)</p> <p>Roof Top Solar (RTS) Photo Voltaic (PV) system shall consist of following equipment/components:</p> <ol style="list-style-type: none"> 1. Solar Photo Voltaic (SPV) modules consisting of required number of Crystalline PV modules should be in the range of 500 - 650 Watts. 2. Inverter/PCU (2 NOS) 3. Module Mounting structures 4. Energy Meter 5. Array Junction Boxes 6. DC Distribution Box 7. AC Distribution Box 8. Protections – Individual Earthing, Lightning and Surge protection 9. Cables 10. Shop Drawing & Manuals 11. Miscellaneous 12. Each Inverter should be controlled by the App and Vendor should provide the same. Necessary SIM should be provided by the Vendor. <p>NOTE : ON CARPARKING SHEDS, FIRE PUMP ROOM SHED IN FRONT 24KW and ON BACK SIDE PARKING SHED 16KW.</p>	KWp	40		
	TOTAL				
	DISCOUNT IF ANY				
	GRAND TOTAL				

NOTES :

1. NET METERING : EITHER ONE SINGLE METER OR MULTIPLE METERS TO BE PROVIDED BASED ON THE RECOMMENDATIONS OF CHHATTISGARH ELECTRICITY BOARD AND CHHATTISGARH RENEWABLE ENERGY DEPARTMENT. ALL OVERHEADS RELATED TOWARDS LIAISONING, GETTING NOC WITH CHHATTISGARH ELECTRICITY BOARD AND CHHATTISGARH RENEWABLE ENERGY DEPARTMENT TO BE BORNE BY THE CONTRACTOR.

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2. THE RELEASE OF 50% OF SECURITY DEPOSIT IS TO LINKED TO THE EFFICACY OF THE SOLAR SYSTEM INSTALLED, APART FROM DEFECTIVE WORK REPLACEMENT THE EFFICIENCY OF THE SOLAR SYSTEM INSTALLED WILL BE ASSESSED BASED ON THE GENERATION AT THE RATE OF 4 TO 4.5 UNITS PER 1KW PER DAY. THE BALANCE 50% RETENTION MONEY WILL BE REFUNDED AFTER 1 YEAR FROM THE DATE OF INSTALLATION AND COMMISSIONING BASED ON THE NORM OF GENERATION OF 4 TO 4.5 UNITS PER 1KW PER DAY. IN THE EVENT OF NON GENERATION OF REQUISITE POWER THE CONTRACTOR WILL UPGRADE THE PANELS / INCREASE THE NUMBER OF THE PANELS TO ACHIEVE THE REQUIRED POWER GENERATION.
3. CONTRACTOR SHOULD FACTOR WHILE QUOTING TENDER REGARDING SUBSIDY RECEIVABLE FROM GOVERNMENT IF ANY. HOWEVER THE BANK WILL EXTEND COOPERATION FOR CLAIMING THE SAME.
4. GST EXTRA AS APPLICABLE WILL BE PAID OVER AND ABOVE THE TENDERED AMOUNT.

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