

BID DOCUMENT

(NIB No. REIL/RE/2020-21/SPV/PP/20051 dated 28.07.2020)

FOR

**RATE CONTRACT FOR SUPPLY, INSTALLATION, TESTING & COMMISSIONING AND INTEGRATED
COMPREHENSIVE MAINTENANCE FOR 5 YEARS OF GRID CONNECTED ROOFTOP SOLAR
PHOTOVOLTAIC (PV) PLANTS**

ISSUED BY



**RAJASTHAN ELECTRONICS & INSTRUMENTS LTD.
(A "Mini Ratna" Central Public Sector Enterprise)
2, Kanakpura Industrial Area, Sirsi Road, JAIPUR – 302 034
T. No. 0141-2470531/2470908/2470363, Fax –0141-2470139
Website: www.reiljp.com**

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ANNEXURE (BOQ)	PRICE BID	SEPARATELY ATTACHED

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NOTICE INVITING BID
(NIB No. REIL/RE/2020-21/SPV/PP/20051 dated 28.07.2020)

Rajasthan Electronics & Instruments Limited (REIL), Jaipur invites sealed bids, from interested bidders for rate contract for Supply, Installation, Testing & Commissioning and Integrated Comprehensive Maintenance for 5 years of grid connected Rooftop Solar Photovoltaic (PV) Power Plants.

The Solar PV modules & Inverters will be supplied by REIL.

The bid shall comprise of technical bid and commercial Bid. The detailed scope of work, terms and conditions etc. are available with the Bid documents.

The bids must also be accompanied with Earnest Money of Rs. 2.50 Lacs (Rupees Two Lacs Fifty Thousand only) in form of crossed Demand Draft / FDR/ Bank Guarantee/ RTGS in favour of “**Rajasthan Electronics & Instruments Limited, Payable at Jaipur**”. The Bank Guarantee should be issued by any scheduled Bank and valid for 180 days.

All MSEs notified as per GFR 2017 clause no. 1.10.4 shall be exempted from payment of Tender Document Fee and Bid Security/ Earnest Money Deposit. For claiming this exemption, MSE must, along with their offer, provide proof of their being registered as MSE (indicating the terminal validity date of their registration) for the item tendered, with any agency mentioned in the notification of Ministry of MSME.

The details for Bid are as follows.

S. No.	Item	Description
1	Last date for submission of Online Bid	04.08.2020 (15:00 Hrs)
2	Tender Fee	Rs. 1500/- in the form of DD / RTGS in favour of “Rajasthan Electronics & Instruments Limited” payable at Jaipur
3	Earnest Money	2.5 Lacs only in the form of DD / BG / FDR / RTGS
4	Opening of technical Bid	05.08.2020 (15:00 Hrs)
5	Opening of Commercial Bid	To be informed later to successful bidders in the technical bid
6	Last date for submission of Hard copy of Tender Fee & EMD (in case of DD / BG / FDR)	05.08.2020 (13:00 Hrs)
7	Address for Submission of Bid, and Opening of Bids	Dy. General Manager (MM), Rajasthan Electronics & Instruments Limited, 2, Kanakpura Industrial Area, Sirsi Road, JAIPUR – 302 034

REIL reserves the right to reject the whole or part of any or all bids received, without assigning any reason.

Dy. General Manager (MM)

SECTION – I INSTRUCTIONS TO BIDDER'S

1 INTRODUCTION

Request for Proposal for rate contract for Supply of BOS, Installation, Testing & Commissioning and Integrated Comprehensive Maintenance for 5 years of grid connected Rooftop Solar Photovoltaic (PV) Power Plants in residential sector across various locations in Bihar. The Projects are being implemented under Phase-II of Grid Connected Rooftop Solar Programme Scheme of MNRE, GoI. Central Financial Assistance (CFA) from MNRE, GoI. Financial Assistance from Govt. of Bihar is provided as well under the Programme for implementation in Residential Sector within the State of Bihar.

- 1.1. The Bidder is advised to read carefully all instructions and conditions of this RfP and understand the scope of work completely. All information and documents required as per the RfP must be furnished with the bid. REIL reserves the right to seek clarifications on submitted bids. Failure to provide the information and/or documents as required shall render the Bid(s) unacceptable for further evaluation and may lead to rejection of the bid(s). All bidders qualifying the technical stage shall be treated at par. Financial Bid of the Bidder qualifying at technical stage only shall be opened.
- 1.2. Bidder shall be deemed to have examined the RfP, to have obtained information in all matters whatsoever that might affect carrying out of works in line with the scope of work specified in the RFP at the Bid price and to have satisfied himself of the sufficiency of his Bid. In case of doubts, queries can be raised by the bidder during pre-bid meeting. The Bidder shall be deemed to know the scope, nature and magnitude of the works and requirement of materials, equipment, tools, labour involved, wage structures and as to what all works Bidder shall have to complete in accordance with the RFP, irrespective of any defects, omissions or errors that may be found in RFP.

2 PROCEDURE FOR SUBMISSION OF TENDERS / BIDS:

2.1 The tender should be submitted in 'TWO BID' SYSTEM:-

1) PART-1 TECHNICAL BID:

Technical Bid along with tender documents (duly signed on each page) to be uploaded in the e-tender portal. Technical Bid to be opened by the REIL committee.

- a. Board resolution/ Authorization letter for signing of the bid document from the bidder be submitted.
- b. Prices / Costs of the items **should not be** indicated anywhere in the Technical Bid. This should be followed meticulously failing which the bid is liable to be rejected.
- c. EMD of Rs. 2,50,000/- only be submitted with the bid in the form of Demand Draft/FDR/ Bank Guarantee / RTGS valid for 180 from the submission of bid.

2) PART-II FINANCIAL BID:

Price Bid BOQ given with tender is to be uploaded strictly as per the format available with the tender failing which the offer is liable for rejection (renaming or changing format of BOQ sheet will not be accepted by the system).

2.2. The cover should also be sealed and addressed to following address:

**Dy. General Manager (MM),
Rajasthan Electronics & Instruments Ltd.,
2 Kanakpura Industrial Area, Sirsi Road, Jaipur- 302034.**

Only online bid shall be considered. Submission of hard copy of technical bid is not required. Only Tender Fee and EMD shall be submitted in hard copy (in case of DD / BG / FDR) and should be reached at REIL within given time line in the tender.

Tenders submitted without the 'Two Bid' System procedure will be rejected.

2.3. E-Tendering Procedure:

The work shall be carried out through submission of online tenders only. No offer in physical form will be accepted and any such offer if received by REIL will be out rightly rejected. Tender documents can be downloaded from our website www.reiljp.com or website of CPPP www.eprocure.gov.in. Final bids are to be submitted on website www.eprocure.gov.in. Any changes modification in the tender enquiry will be intimated through above websites only. Tenderer are therefore, requested to visit our Website regularly to keep themselves updated.

The bidder should have a valid Digital Signature certificate issued by any of the valid certifying Authorities to participate in the online tender.

The bids shall be uploaded in electronic form only through e-tendering system on website www.eprocure.gov.in

E-Procurement system does not allow submission of documents after due date of tender. Incomplete form or non-submission of required documents may results into rejection of your offer and no Communication shall be done for submission of documents.

3 BID DETAILS:

- 3.1. The bidding process under this RfP is for empanelment of the bidders for tentative 1 MW aggregated capacity of Grid Connected Rooftop Solar Power Plants/Projects for residential sector under EPC cum comprehensive maintenance for 5 years at various locations in Bihar state. However, total capacity, as indicated above, may increase or decrease.

4 SCOPE OF WORK

To be carried out on 'Turn Key Basis' which includes identification of beneficiary of the residential category, survey of the site for its feasibility considering the shadow free space, sanctioned load of the beneficiary by the DISCOM, design, supply of grid connected solar photovoltaic system with all accessories (except module and inverter), equipment and protection devices, installation, testing, commissioning and maintenance services for 5 years after commissioning, with free replacement warranty on spare parts against manufacturing defects for five years.

1. Identification and Survey of prospective beneficiaries.
2. Obtaining No objection certificate / net metering connectivity agreements from concerned DISCOM

for grid connectivity.

3. The work covers design, supply, installation, commissioning and comprehensive maintenance for 5 years after its commissioning.
4. Design, supply, civil work, erection, testing and commissioning of SPV grid connected Power Plant as per schedule.
5. Supply and installation of Solar meter (unidirectional meter) will be in the scope of the Contractor, if required.
6. Installation of Grid Interactive Power Conditioning Unit with Remote Monitoring hardware/facility (with necessary dongle, etc). The cost of the data pack and internet connectivity shall be the responsibility of the contractor for the period of 5 years. The Bidder shall provide rights to DISCOM to access the performance data of the inverter by sharing the user id and the Password, as and when required, for DISCOM to monitor the performance any time.
7. Payment of the project cost, excluding the MNRE and State Subsidy, shall be paid by beneficiaries to REIL after execution of Net Metering Agreement between DISCOM and the beneficiary.
8. Collection of the cost of the supplies from the beneficiaries.
9. Collection of beneficiary share and deposit to REIL in the scope of bidder.
10. The selected bidders shall follow the quality control orders and standards for all components of RTS system and its installation procedure, if any, issued by MNRE from time to time.

Note: Supply and Installation of Net Meter / Bi-directional meter shall be done by concerned DISCOM. Contractor is only required for co-ordination for installation of the meter.

Parameter	Bihar
Duration of empanelment	1 year from the date of issue of LOA (Letter of Acceptance) for execution of applications.
Duration of Commissioning	3 months from the date of payment of project cost less CFA and SFA from beneficiary to vendor

3.3 COMPLIANCE WITH LAWS/REGULATIONS/POLICY:

- 3.3.1. The successful bidder(s) shall have to comply with any laws/regulations/policies (including future amendments) rolled out by MNRE, Bihar Electricity Regulatory Commission and all applicable laws of the Union of India.

4 PROJECT COST

- 4.1 The Project cost (except module and inverters) shall include all the costs related to above Scope of Work. Bidder shall quote for the entire facilities on a "single responsibility" basis such that the total Price Bid covers all the obligations mentioned in the Bidding Documents in respect of Design, Supply of BOS, Installation, Testing &

Commissioning with Comprehensive Maintenance for 5 Years of Grid Connected Rooftop Solar Photovoltaic (PV) Power Plants under Residential sector at various location in Bihar, goods and services including spares required if any during O&M period. The Bidder has to take all permits, approvals and licenses, Insurance etc., provide training and such other items and services required to complete the scope of work mentioned above. It may be noted that transit insurance is not mandatory. As the projects under this RfP shall be turnkey based, hence it shall be the responsibility of the respective Empanelled agency for successful commissioning of the Solar System.

- 4.2. The project cost quoted is on lump sum turnkey basis and the bidder is responsible for the total Scope of Work.
- 4.3. The project cost shall remain firm and fixed and shall be binding on the Successful Bidder till completion of work. No escalation will be granted on any reason whatsoever. The bidder shall not be entitled to claim any additional charges, even though it may be necessary to extend the completion period for any reasons whatsoever.
- 4.4. The project cost shall be inclusive of all duties and taxes, insurance etc .The prices quoted by the firm shall be complete in all respect and no price variation /adjustment shall be payable.

5 WARRANTIES AND GUARANTEES

- 5.1. The Bidder shall warrant that the goods supplied under the contract are new, unused, of the most recent or latest technology and incorporate all recent improvements in design and materials. The bidder shall provide system warranty covering the rectification of any and all defects in the design of system, equipment, materials and workmanship including spare parts for a period of 5 years from the date of commissioning. The successful bidder has to transfer all the Guarantees / Warrantees of the different components to the beneficiary. The responsibility of operation of Warranty and Guarantee clauses and Claims/ Settlement of issues arising out of said clauses shall be joint responsibility of the Successful bidder and the beneficiary.

6 COMPREHENSIVE MAINTENANCE CONTRACT (CMC)

- 6.1. The bidder shall be responsible for Comprehensive Maintenance of the Roof top Solar PV system of capacity from 1 kWp to 10 kWp & Beyond 10 kWp for a period of 5 years after commissioning, during which REIL/DISCOM will monitor the project for effective performance in line, the bidder shall be responsible for supply of all spare parts as required from time to time for scheduled and preventive maintenance, major overhauling of the plant, replacement of defective modules, inverters, PCU's etc. and maintaining log sheets for operation detail, deployment of staff for continuous operations and qualified engineer for supervision of CMC work, complaint logging & its attending.

7 ELIGIBILITY CRITERIA

- 7.1. The bidder should be a Company / Firm / Corporation / LLP in India having experience in Installation & Commissioning of Solar Power Plants. Registration Certificate shall be submitted alongwith the bid.
- 7.2. The Bidder should have installed & commissioned Off-Grid / Grid Connected Solar PV Power Plant having total cumulative capacity of not less than 20 kWp in last two years which should have been commissioned prior to Techno-Commercial Bid opening date in any MNRE scheme / SNA / Govt. or Semi-Govt. Organization / PSU / SECI / DISCOM / Private organization. The list of project(s) commissioned prior to Techno-Commercial Bid

opening date, along with a copy of the commissioning certificate and work order / contract / agreement from the client / owner shall be submitted.

7.3 Minimum Annual Average Turnover (MAAT) of the bidder for last two financial years should be at least Rs. 10 Lakh.

7.4 PAN & GST registration -

The firm must have valid PAN No and GSTIN No.

Copy of PAN card and GSTIN Registration are required to be submitted with the bid.

Bidder(s) should have valid GST registration certificate.

7.5 All MSEs notified as per GFR 2017 clause no. 1.10.4 shall be exempted from payment of Tender Document Fee and Bid Security/ Earnest Money Deposit. For claiming this exemption, MSE must, along with their offer, provide proof of their being registered as MSE (indicating the terminal validity date of their registration) for the item tendered, with any agency mentioned in the notification of Ministry of MSME.

7.6 Bidder(s) not to have Conflict of Interest-

A Bidder shall not have a conflict of interest. Any Bidder found to be having a conflict of interest shall be disqualified. The bidder shall be considered to have conflict of interest with one or more parties in this bidding process, if:

- a) They (two or more bidders) have a controlling partner in common,
- b) They receive or have received any direct or indirect subsidy from any of them; or
- c) They have the same legal representative for purpose of this bid; or
- d) They have a relationship with each other, directly or through common third parties, that puts them in position to have access to information about or influence on the bid of another Bidder, or influence the decisions of the Employer regarding this bidding process; or
- e) A bidder submits more than one bid in the bidding process, either individually (including bid submitted as agent /authorized representative on behalf of one or more manufacturer(s) or through Licensee – Licensor route, wherever permitted as per the provision of Qualification requirement for Bidders)
- f) in cases of agents quoting in offshore procurements, on behalf of their principal manufacturers, one agent cannot represent two manufacturers or quote on their behalf in a particular tender enquiry. One manufacturer can also authorize only one agent/dealer.

There can be only one bid from the following:

- i The principal manufacturer directly or through one Indian agent on his behalf; and
- ii Indian/ foreign agent on behalf of only one principal.
- g) A Bidder or any of its affiliates participated as a consultant in the preparation of the design or technical specification of the services/works that are subject of the bid, or
- h) The Bidder directly or indirectly shall not be a dependent agency of the Employer.
Declaration confirming that no conflict of interest will arise during contract period by the authorized signatory of the Bidder needs to be submitted.

7.7 **Blacklisting & debarment-**

- i. The bidder has not been blacklisted by any State Govt./SNA/Central Govt. / Govt. undertaking in India as on the date of tender

- ii. Its agreement/work order has not been terminated on account of performance in past three years by any State Govt. /SNA/Central Govt. / Govt. undertaking in India as on the date of tender.
- iii. The bidder has not been debarred by Bihar State Power Holding Company Ltd., (BSPHCL) and its subsidiary companies as on the date of tender.

Declaration in this regard by the authorized signatory of the Bidder needs to be submitted.

7.8 This Bid is open to any Bidder who provides satisfactory evidence that it has adequate financial stability and status to meet the financial obligations related to scope of the project;

7.9 The above stated requirements are a minimum and Employer reserves the right to request for any additional information and reserves the right to reject the Proposal of any Bidder, if in the opinion of Employer, the qualification data is incomplete, or the Bidder is found not qualified to satisfactorily perform the Contract.

7.10 Financial requirements

a) Net worth -

Bidder(s) should have positive (+ve) net worth during two (2) preceding financial years. Here, net worth means the sum total of the paid up capital and free reserves (excluding reserves created out of revaluation) reduced by aggregate value of accumulated losses (including debit balance in profit and loss account for current year) and intangible assets.

b) Minimum Average Annual Turnover (MAAT) -

The Bidder must have a MAAT of INR 10 Lakh in last two financial years

A certified document by a Chartered Accountant (verification of Turnover & Networth) and audited balance sheet of last 2 (two) financial years (2018-19 & 2019-20 / 2017-18 & 2018-19) needs to be submitted.

8 SIZE OF THE PROJECTS:

The size of each project shall be in the range of 1 kWp above and upto 10 kWp & beyond 10 kWp. One project may however comprise of several rooftop units. If each roof has separate meters, then roof top solar unit can separately be connected with the grid and may have separate meters. Otherwise only one connection with grid meter is allowed irrespective of several roofs in one project.

The size of each project as given below:

Project	Capacity (MW)
From 1 kWp above and upto 10 kWp	01
Above 10 kWp and upto 100 kWp	

* Group Housing Societies/Residential Welfare Associations (GHS/RWA) etc. for common facilities will be limited (@ 10 kWp per house), with the upper limit being inclusive of individual rooftop plants already installed by individual residents in that GHS/RWA at the time of installation of RTS for common activity.

9 VALIDITY OF BID

Bids shall remain valid for a period of 180 days from the date of opening of financial bid, with bidder having no right to withdraw, revoke or cancel his offer or unilaterally vary the offer submitted or any terms thereof. In case of the bidder revoking or cancelling his offer or varying any term & conditions in regard thereof or not accepting Letter of Acceptance, REIL shall forfeit the EMD furnished by him. Confirmation regarding the Bid offer validity shall be clearly mentioned in the covering letter.

In exceptional circumstances, validity of Bid/ Contract Agreement may be extended on or before the date of expiry on mutual consent of Bidder and REIL. The consent and the responses shall be made in writing. If a Bidder accepts to extend the validity of Bid/Contract Agreement, the validity of Bid Security shall also be suitably extended. A Bidder may refuse the request without forfeiting its Bid Security. A Bidder granting the request shall not be required or permitted to modify its Bid.

10 EARNEST MONEY DEPOSIT (EMD)

10.1 The Bidder shall furnish the EMD of Rs. 2.5 lakhs (Rupees Two lakh fifty Thousand only) in the form of Demand Draft /BG/FDR/RTGS drawn in favour of "Rajasthan Electronics & Instruments Limited", payable at Jaipur. The EMD of unsuccessful bidders shall be returned promptly.

➤ Format of Bank Guarantee for EMD is attached as Annexure – I.

10.2. The EMD shall be denominated in Indian Rupees and shall:

- be in the form of demand draft, from a Nationalized / Schedule commercial Bank.
- be submitted in its original form; copies will not be accepted;

1. Hard copy in original of tender fee / Cost of tender document and earnest money is to be submitted otherwise bid will not be opened (In case of DD / BG / FDR). No correspondence in this regard shall be made with the bidder after opening of Part-I of bid.
2. 'Price bid part-II' excel file (so called Part-II) must be submitted/ uploaded through e-tendering mode only. Hard copy of the price bid (Part-II) shall not be considered. If any bidder encloses hard copy of price bid then their bid shall be rejected.

10.3. The EMD shall be forfeited without prejudice to the Bidder being liable for any further consequential loss or damage incurred to SBPDCL under following circumstances:

- I. Hundred percent (100%) of EMD amount, if a Bidder withdraws / revokes or cancels or unilaterally varies his bid in any manner during the period of Bid Validity specified in the RFP document.
- II. Hundred percent (100%) of the EMD amount, if the Successful Bidder fails to unconditionally accept the Letter of Acceptance.
- III. Hundred percent (100%) of the EMD amount, if the Successful Bidder fails to furnish the "Contract Performance Guarantee".

11 CONTRACT PERFORMANCE SECURITY (CPG)

11.1. The Contractor shall provide advance CPG to REIL within 07 (Seven) days from the date of acceptance of LoA, the advance Contract Performance Guarantee in the form of an irrevocable Bank Guarantee equivalent to 5% of

discovered L1 price for 100 kW systems. This advance CPG shall be submitted by the bidder before signing of the contract agreement.

- 11.2. Further the bidder has to submit the next CPG of 100 kWp (5% of total cost of 100 kWp) within 14 days of intimation of CPG submission after receiving 75 % of work orders capacity upto 100kWp of the first lot (i.e. 75 kWp).
- 11.3. The Contract Performance Guarantee shall be valid for a period of 18 months from the date of intimation of work order.
- 11.4. CPG shall be extended accordingly, subject to completion of defect liability period and CMC payment may be released against submission of 5 (five) BG's each of 2% amount of work order value for 12, 24, 36, 48 & 60 months respectively against comprehensive maintenance for 5 years.
- 11.5. The validity of Bank Guarantee for Comprehensive Maintenance will be 60 days beyond guarantee/warranty/defect liability period.
- 11.6. If the Contractor fails to fulfill obligations under the Contract, the proceeds of Contract Performance Guarantee/Security shall be appropriated by REIL as part compensation for any loss resulting from Contractor's failure to perform and fulfill the various obligations under Contract without prejudice to any other rights or remedies to which SBPDCL may be entitled to under the Contract and the applicable laws.
- 11.7. On due performance and execution of the order in all respects, the BG will be returned to the contractor without any interact on presentation of "No Demand Certificate".
- 11.8. Failure of the successful Bidder to submit performance security or Performance Guarantee as stipulated shall constitute sufficient grounds for the annulment of the award and forfeiture of the bid security, in which event the Employer may make the award to another successful Bidder.

12. PRICES:

- a. Prices/Financial bid are to be quoted in Indian Rupees and must be meaningful and measurable in the context.
- b. Bidders should clearly specify whether prices quoted are inclusive of GST/duties/ statutory charges or such charges as extra. Where no specific mention GST or other duties quoted shall be deemed to be inclusive of such taxes / charges.
- c. Price must be quoted in original sheet of BOQ failing which the same is liable to be rejected.
- d. Allocation of work may be distributed on L1 price.

13. CORRESPONDENCE

Bidder requiring any Techno-Commercial clarification of the bid documents may contact in writing or by Fax /E Mail.

Verbal clarifications and information given by the REIL or its employees or its Representatives shall not be in any way entertained.

Name	Contact Number	Email id
Sh. Amitabh Sharma	+91-7727011721	amitabh.sharma@reil.co.in

SECTION-II -GENERAL CONDITIONS OF CONTRACT

1 METERING AND GRID CONNECTIVITY

- 1.1. Metering and grid connectivity of the RTS PV system under this scheme would be the responsibility of the Bidder in accordance with the prevailing guidelines of the DISCOM. Supply & Installation of Solar Meter will be at Bidder's scope and Net Meter/ Bi-Directional Meter (Smart Meter) will be supplied and installed by respective DISCOM.

2 PROJECT INSPECTION

- 2.1. The progress of the projects from 1 kWp to 10kWp & Beyond 10 kWp will be monitored by REIL and the projects will be inspected for quality of work at any time during installation /commissioning or after the completion of the project either by officer(s) from REIL or any authorized agency/ experts.
- 2.2. REIL reserves the right to do sample inspection checks for the projects commissioned by the Bidder.

3 FORCE MAJEURE

Notwithstanding the provisions of clauses contained in this RfP document; the contractor shall not be liable to forfeit (a) Security deposit for delay and (b) termination of contract; if he is unable to fulfil his obligation under contract due to force majeure conditions.

For purpose of this clause, "Force Majeure" means an event beyond the control of the contractor and not involving the contractor's fault or negligence and not foreseeable, either in its sovereign or contractual capacity. Such events may include but are not restricted to Acts of God, wars or revolutions, fires, floods, epidemics, quarantine restrictions and fright embargoes etc. Whether a "Force majeure" situation exists or not, shall be decided by REIL and its decision shall be final and binding on the contractor and all other concerned.

In the event that the contractor is not able to perform his obligations under contract on account of force majeure, he will be relieved of his obligations during the force majeure period. In the event that such force majeure extends beyond six months REIL has the right to terminate the contract in which case, the security deposit shall be refunded to him.

If a force majeure situation arises, the contractor shall notify REIL in writing promptly, not later than 7 days from the date such situation arises. The contractor shall notify REIL not later than 3 days of cessation of force majeure conditions. After examining the cases, REIL shall decide and grant suitable additional time for the completion of the work, if required.

4 LANGUAGE

All documents, drawings, instructions, design data, calculations, operation, maintenance and safety manuals, reports, labels and any other data shall be in English Language. The contract agreement and all correspondence between the REIL and the bidder shall be in English language.

5 OTHER CONDITIONS

The Successful bidder shall not transfer, assign or sublet the work under the contract or any substantial part thereof to any other party.

The Successful bidder shall not display the photographs of the work and not take advantage through publicity of the work.

The Successful bidder shall not make any other use of any of the documents or information of the contract, except for the purposes of performing the contract.

6 SEVERABILITY

It is stated that each paragraph, clause, sub-clause, schedule or annexure of the contract shall be deemed severable & in the event of the unenforceability of any paragraph, clause sub-clause, schedule or the remaining part of the paragraph, clause, sub-clause, schedule annexure & rest of the contract shall continue to be in full force & effect.

7 RIGHTS & REMEDIES UNDER THE CONTRACT ONLY FOR THE PARTIES:

The contract is not intended & shall not be construed to confer on any person other than the REIL & Successful bidder hereto, any rights and / or remedies herein.

8 STEPS TO TAKE UP THE WORK

Although the procedures of taking up work to complete as per requirement has been already described in the document, in order to provide guidelines at a glance further, the steps to take up work under this program are summarized as under:

- i. The Successful Bidders shall be issued Letter of Acceptance (LOA) followed by subsequent submission of CPG by the bidder & contract agreement will be executed.
- ii. The bidder will motivate the interested beneficiary for installation of SPV Power Plant for captive consumption. For identification of projects, REIL may provide help such as publicity, circulars etc. However the entire responsibility of finding the buildings/beneficiaries lies with the Bidder.
- iii. The Successful Bidders' Engineer shall visit the site of beneficiary and prepare DPR of the project.
- iv. After receiving application, REIL will approve/reject the same within 7 days and that approval date will be counted as a work order date of that particular project.
- v. The Successful Bidder will provide maintenance service up to the period of five years from the date of commissioning of project.

9 RFP VALIDITY

RFP shall be valid for a period of 12 months from the date of signing of the Contract Agreement. Further it's validity may be extended for a maximum period of six months subject to discretion of Competent Authority of REIL.

10 SUBSIDY & SUBSIDY RELEASE PATTERN

The Central Financial Assistance (CFA) pattern is as mentioned below:

Type of residential sector	CFA (as percentage of benchmark cost or cost discovered through competitive process whichever is lower)
Residential sector (maximum up to 3 kW capacity)	40 % of benchmark cost
Residential sector (above 3 kW capacity and up to 10 kW capacity)*	40 % up to 3 KW Plus 20% for RTS system above 3 kW and up to 10 kW
Group Housing Societies/Residential Welfare Associations (GHS/RWA) etc. for common facilities up to 500 kWp (@ 10 kWp per house), with the upper limit being inclusive of individual rooftop plants already installed by individual residents in that GHS/RWA at the time of installation of RTS for common activity.	20 %

*The residential sector users may install RTS plant of even higher capacity as provisioned by respective State electricity regulations; however, the CFA will be limited up to 10 kWp capacity of RTS plant.

State Financial Assistance (SFA): The State Financial Assistance is provided by the State Government of Bihar @ 25% of L1 price discovered and will be provided for all categories. Disbursement will be made by DISCOM on completion of the project, verification by DISCOM/ third party inspector empaneled by DISCOM and receipt/availability of the State Subsidy. Copies of invoices after joint inspection shall also be uploaded on DISCOM solar rooftop web portal along with Inspection Report, photographs and required documents.

SECTION III - TECHNICAL SPECIFICATIONS

The proposed projects shall be commissioned as per the latest technical specifications and as per latest MNRE notification. Any shortcomings shall lead to cancelation of payment in full or part as decided by REIL.

SPV Modules and Inverters shall be supplied by REIL at one district location in Bihar.

DEFINITION

A Grid Connected Solar Rooftop Photo Voltaic (SPV) power plant consists of SPV array, Module Mounting Structure, Power Conditioning Unit (PCU) consisting of Maximum Power Point Tracker (MPPT), Inverter, and Controls & Protections, interconnect cables and switches, bi-directional meter PV Array is mounted on a suitable structure. Grid tied SPV system is without battery and should be designed with necessary features to supplement the grid power during day time. 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 and should be MNRE approved.

Solar PV system shall consist of following equipment's /components.

- Solar PV modules consisting of required number of Crystalline PV cells.
- Grid interactive Power Conditioning Unit with Remote Monitoring System
- Mounting structures
- Junction Boxes.
- Earthing and lightning protections.
- IR/UV protected PVC Cables, pipes and accessories

ARRAY STRUCTURE

Hot dip galvanized MS mounting structures or Aluminium may be used for mounting the modules/ panels/arrays. Minimum thickness of galvanization should be at least 80 microns for steel.

Each structure should have angle of inclination as per the site conditions to generate maximum power. However, to accommodate more capacity the angle inclination may be reduced until the plant meets the specified performance ratio requirements.

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. 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 REIL. Suitable fastening arrangement such as grouting and calmping should be provided to secure the installation against the specific wind speed (withstand upto 150 Km/Hr).

The mounting structure steel shall be as per latest IS 2062: 2011 and hot dip galvanization of the mounting structure shall be in compliance of latest IS 4759 or Cold Rolled Pre galvanized structure material is also allowed. The Rectangular/ square/ circular hollow pipe section used for the structure should have a minimum thickness of 2.0 mm. Other than above, the material thickness should be minimum 2.5 mm. The Structure design and drawing shall be duly stamped by licensed Structural designer is required to be

submitted to the concerned DISCOM by the Empanelled Agency before installation for all types of structure arrangements including the extension made, as per specification.

Mounting Arrangement: -

1. Mounting arrangement for RCC-flat roofs: - The Structure should be made byon-situ Installation/removable concrete ballast made of PCC (1:2:3).
2. Mounting arrangement for metal sheet roofs: - The structure should have sufficient stability and wind withstanding capacity with ensuring that the roof remains water proof.
3. Mounting arrangement for ground installations: - The structure should be made byon-situ installation/removable concrete ballast made of PCC (1:2:3); assuring enough ground clearance to prevent damage of the module through water, animals and other environmental factors. Minimum 300 mm Ground Clearance have to be maintained.

Structural material shall be corrosion resistant and electrolytically compatible with the materials used in the module frame, its fasteners, nuts and bolts (anti-theft only).

Aluminium structures also can be used which can withstand the wind speed of respective wind zone. Necessary protection towards rusting need to be provided either by coating or anodization.

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

Regarding civil structures the bidder need to take care of the load baring capacity of the roof and arrange suitable structures based on the quality of roof.

The total load of the structure (when installed with PV modules) on the terrace should be less than 60 kg/m².

JUNCTION BOXES (JBs)

The junction boxes are to be provided in the PV array for termination of connecting cables. The Junction Boxes (JBs) shall be made of GRP/FRP/Polycarbonate/Powder Coated Aluminium /cast aluminium alloy with full dust, water & vermin proof arrangement. All wires/cables must be terminated through cable lugs. The JB's shall be such that input & output termination can be made through suitable cable glands.

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. Single / double compression cable glands.Provision of earthings. It should be placed at 5 feet height or as per site requirement.

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.

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

All fuses shall have DIN rail mountable fuse holders and shall be housed in thermo plastic IP65 enclosures with transparent covers.

DC DISTRIBUTION PANEL BOARD:

DC Distribution panel board (DPB) to receive the DC output from the array field.

DC DPBs shall have sheet from enclosure of dust & vermin proof conform to IP 65 protection. 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.

AC DISTRIBUTION PANEL BOARD:

AC Distribution Panel Board (DPB) shall control the AC power from PCU/ inverter, and should have necessary surge arrestors. Interconnection from ACDB to mains at LT Bus bar while in grid tied mode.

All switches and the circuit breakers, connectors should conform to IEC 60947, part I, II and III/ IS60947 part I, II and III.

The changeover switches, cabling work should be undertaken by the bidder as part of the project.

All the Panel's shall be metal clad, totally enclosed, rigid, air - insulated, cubical type suitable for operation on three phase / single phase, 415 or 230 volts, 50 Hz

The panels shall be designed for minimum expected ambient temperature of 45 degree Celsius, 80 percent humidity and dusty weather.

All indoor panels will have protection of IP54 or better. All outdoor panels will have protection of IP65 or better.

Should conform to Indian Electricity Act and rules (according to latest amendment).

All the 415 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

Variation in Supply Voltage	+/- 10%
Variation in Supply Frequency	+/- 3 Hz

INTEGRATION OF PV POWER WITH GRID:

The output power from SPV would be fed to the inverters which converts DC produced by SPV array to AC and 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.

REMOTE MONITORING

The Inverter alongwith data logger (for remote monitoring facility through sim card) shall be supplied by REIL. However, Recurring cost of **SIM CARD** shall be borne by empanelled agency up to CMC period of 5 years, thereafter consumer will bear the connectivity expenses.

Required website/mobile app platform, where the user (Consumer) can access the data, should be provided/explained to consumer while installation by Empanelled Agency. Additionally, if inverter has the facility of in-built wi-fi module, that should also be explained to the consumer.

The bidder shall provide unique login id and password for each installed solar power plant to REIL, SBPDCL/NBPDCL and beneficiary.

All the inverter data should be made available to REIL & state DISCOMs for monitoring by giving web access. The following parameters are accessible via the operating interface display in real time through remote monitoring separately for solar power plant:

- a) AC Voltage
- b) AC Output current
- c) Output Power
- d) Power factor
- e) DC Input Voltage
- f) DC Input Current
- g) Time Active
- h) Time Disabled
- i) Time Idle
- j) Daily Energy (kWh)
- k) Cumulative Energy (kWh)

POWER CONSUMPTION:

Regarding the generated power consumption, priority needs to give for internal consumption first and thereafter any excess power can be exported to grid. Decisions/guidelines of appropriate authority like DISCOM, state regulator may be followed.

PROTECTIONS

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

LIGHTNING PROTECTION

The SPV power plants shall be provided with lightning & over voltage 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 SPDs should also be employed to provide the protection against the surges in Distribution boxes and wherever found necessary. 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. Lightning protection should be provided as per IEC62305 standard. The protection against induced high-voltages shall be provided by the use of Metal Oxide Varistors (MOVs)/Franklin Rod type LA/Early streamer type LA and suitable separate maintenance free earthing such that induced transients find an alternate route to earth. The current carrying cable from lightning arrestor to the earth pit should have sufficient current carrying capacity according to IEC 62305. According to standard, the minimum requirement for a lightning protection system designed for class

of LPS III is a copper conductor with a cross section of 16 mm² or equivalent. Wiring up to 30 meter wire length is included in Project Cost and beyond 30 meter, the cost of wiring shall have to be borne by the beneficiary

SURGE PROTECTION

Internal surge protection shall consist of three MOV type surge-arrestors connected from +ve and –ve terminals to earth (via Y arrangement)

EARTHING PROTECTION

Each PV array structure should be grounded/ earthed properly as per IS:3043-1987 (reaffirmed 2006). In addition, the lightning arrester/masts should also be earthed inside the array field. PCU, ACDB and DCDB should also be earthed properly. All non-current metal parts shall be earthed with two separate and distinct earth continuity conductors to an efficient earth electrode. Separate earthing to be provided for LA, AC and DC parts.

Earth resistance should be as low as possible so as to meet the safety and protection requirements. It shall be ensured that all the earthing points are bonded together to make them at the same potential. Separate three earth pits shall be provided for individual three earthings viz.: DC side earthing, AC side Earthing and Lightning arrester earthing. The earthing shall be done in accordance with latest Standards.

GRID ISLANDING

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 in 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.” Powered islands present a risk to workers who may expect the area to be unpowered, and they may also damage grid-tied equipment. 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 pole 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

CABLES

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

- a) Shall meet IEC 60227/IS 694, IEC 60502/IS1554, IS 7098 standards
- b) Temp. Range: –10°C to +80°C.
- c) Voltage rating 660/1100V
- d) Excellent resistance to heat, cold, water, oil, abrasion, UV radiation
- e) Flexible
- f) Sizes of cables between array interconnections, array to junction boxes, junction boxes to Inverter 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.
- g) For the DC cabling, XLPE or, XLPO insulated and sheathed, UV- stabilized single core multi-stranded

- flexible copper cables shall be used; Multi-core cables shall not be used.
- h) For the AC cabling, PVC or, XLPE insulated and PVC sheathed single or, multi-core multi-stranded flexible copper cables shall be used; Outdoor AC cables shall have a UV-stabilized outer sheath.
 - i) The cables (as per IS) should be insulated with a special grade PVC compound formulated for outdoor use. Outer sheath of cables shall be electron beam cross-linked XLPO type and black in colour.
 - j) The DC cables from the SPV module array shall run through a UV- stabilized PVC conduit pipe of adequate diameter with a minimum wall thickness of 1.5mm.
 - k) Cables and wires used for the interconnection of solar PV modules shall be provided with solar PV connectors (MC4) and couplers.
 - l) All cables and conduit pipes shall be clamped to the rooftop, walls and ceilings with thermo-plastic clamps at intervals not exceeding 50 cm; the minimum DC cable size shall be 4.0 mm² copper; the minimum AC cable size shall be 4.0 mm² copper. In three phase systems, the size of the neutral wire size shall be equal to the size of the phase wires.
 - m) 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 ferule or by other means so that the cable easily identified. In addition, cable drum no. / Batch no. to be embossed/ printed at every one meter.
 - n) Cable Jacket should also be electron beam cross-linked XLPO, flame retardant, UV resistant and black in colour.
 - o) All cables and connectors for use for installation of solar field must be of solar grade which can withstand harsh environment conditions including High temperatures, UV radiation, rain, humidity, dirt, salt, burial and attack by moss and microbes for 25 years and voltages as per latest IEC standards. DC cables used from solar modules to array junction box shall be solar grade copper (Cu) with XLPO insulation and rated for 1.1kV as per relevant standards only.
 - p) Bidder will have to indicate the size and length as per system design requirement. All the cables required for the plant shall be provided by the Bidder. Any change in cabling sizes if desired by the Bidder shall be approved after citing appropriate reasons. All cable schedules/ layout drawings shall be approved prior to installation. Cable length may vary as per the site requirements.
 - q) Multi Strand, Annealed high conductivity copper conductor PVC type 'A' pressure extruded insulation or XLPE insulation. Overall PVC/XLPE insulation for UV protection Armoured 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 below: BoS item / component Standard Description Standard Number Cables General Test and Measuring Methods, PVC/XLPE insulated cables for working Voltage up to and including 1100 V, UV resistant for outdoor installation IS /IEC 69947.
 - r) The total voltage drop on the cable segments from the solar PV modules to the solar grid inverter shall not exceed 2.0%.
 - s) The total voltage drop on the cable segments from the solar grid inverter to the building distribution board shall not exceed 2.0%.
 - t) Only copper cables shall be used.

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. Following criteria have

been suggested for selection of voltage level in the distribution system for ready reference of the solar suppliers.

Plant Capacity	Connecting Voltage
Up to 5 kW	240V-single phase
Above 5 kW upto 7 kW	240V-single phase or 415V-three phase at the option of the consumer
Above 7 kW	415V – three phase

- i. Utilities may have voltage levels other than above; DISCOMs may be consulted before finalization of the voltage level and specification is made accordingly.
- ii. Net Metering should be as per DISCOM guideline.

TOOLS & TACKLES AND SPARES:

A list of requisite spares in case of PCU/inverter comprising of a set of control logic cards, IGBT/MOSFET 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 service centre for the entire period of warranty and Comprehensive Maintenance which upon its use shall be replenished

DANGER BOARDS AND SIGNAGES:

Danger boards should be provided as and where necessary as per IE Act. /IE rules as amended up to date.

DRAWINGS & MANUALS:

Two sets of Engineering, electrical drawings and Installation and O&M manuals are to be supplied. Bidders shall provide complete technical data sheets for each equipment giving details of the specifications along with make/makes in their RfP along with basic design of the power plant and power evacuation, synchronization along with protection equipment.

Approved ISI and reputed makes for equipment be used.

PLANNING AND DESIGNING:

The bidder should carry out Shadow Analysis at the site and accordingly design strings & arrays layout considering optimal usage of space, material and labour. The shadow analysis report with the instrument such as Solar Pathfinder or professional shadow analysis software of each site has to be submitted by Bidder and shall be his responsibility to educate the user to install the system only in shadow free space. Lower performance of the system due to shadow effect shall be the responsibility of the bidder and shall be liable for penalty for lower performance.

DRAWINGS TO BE FURNISHED BY BIDDER AFTER AWARD OF CONTRACT

- i. General arrangement and dimensioned layout
- ii. Schematic drawing showing the requirement of SV panel, Power conditioning Unit(s)/ inverter, Junction Boxes, AC and DC Distribution Boards, meters etc.
- iii. Structural drawing along with foundation details for the structure.

- iv. Itemized bill of material for complete SV plant covering all the components and associated accessories.
- v. Layout of solar Power Array
- vi. Shadow analysis of the roof

SOLAR PV SYSTEM ON THE ROOFTOP FOR MEETING THE ANNUAL ENERGY REQUIREMENT

The Solar PV system on the rooftop of the selected buildings will be installed for meeting the annual energy requirements of the PV capacity permissible by DISCOM as per regulation issued by BERC.

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.

DISPLAY BOARD:

The Bidder has to display a board at the project site mentioning the following:

- Plant Name, Capacity, Location, Type of Renewable Energy plant (Like solar wind etc.), Date of commissioning, details of tie-up with distribution companies, Power generation and Export FY wise.
- The size and type of board and display shall be appropriate.

BI-DIRECTIONAL METER/ NET METER AND SOLAR METER:

The Bi-directional/Net Meter will be supplied and installed by SBPDCL/NBPDCL. Technical specification of Bi-directional/Net meter will be as per the prevailing regulations/guideline of BERC/DISCOM.

Technical specification of Solar Meter should be as per the prevailing regulations/guideline of BERC/DISCOM (Notification: No.500 dt 28/09/2018).

IEC Standards	
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 Breakers c) Low-voltage switchgear and Control-gear, Part 3: Switches, disconnectors, switch- disconnectors 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	

IEC 62305-4	Lightning 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	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)	<p>IEC 62561-1</p> <p>Lightning protection system components (LPSC) - Part 1: Requirements for connection components IEC 62561-2 Lightning protection system components (LPSC) - Part 2: Requirements for conductors and earth electrode</p> <p>IEC 62561-7</p> <p>Lightning protection system components (LPSC) - Part 7: Requirements for earthing enhancing compounds</p>
Junction Boxes	
IEC 60529	Junction boxes and solar panel terminal boxes shall be of the thermo-plastic type with IP 65 protection for outdoor use, and IP 54 protection for indoor use
Solar PV Roof Mounting	

Structure	
IS 2062/IS 4759	Material for the structure mounting

SECTION-IV

Payment Terms & Other Conditions

The terms of payment has been summarized below.

1. 10% payment shall be paid against receipt of 100% beneficiary share, inspection of material by respective authority (DISCOM) and supply of material at site.
2. 40% Payment shall be paid after complete installation and commissioning of the SPV Power Plant and submission of all relevant documents.
3. 20% Payment shall be paid after receipt of CFA from SBPDCL/NBPDCL.
4. 20% Payment shall be paid after receipt of SFA SBPDCL/NBPDCL.
5. Rest 10% Payment shall be paid in 5 equal installments of 2% each after end of the each year.

Other Terms & Conditions:

1. Other terms & conditions shall be as per prevailing guidelines and specifications of Grid Interactive Rooftop Solar Power Plants of MNRE, GOI and Solar Power Policy of the State of Bihar issued from time to time. In case of any contradiction of terms & conditions, the guidelines of MNRE shall prevail.
2. Compliance with Regulations and Indian Standard:-
All works shall be carried out in accordance with relevant regulations, both statutory & those specified by the Indian standard related to the works covered by this specification. In particular the equipment and installation will comply with the following:-
 - Work man's compensation act.
 - Minimum wages Act.
 - Payment wages Act.
 - Contact Labour regulation & abolition Act.
 - ESI, PF & Bonus Act.
 - Regulation under Indian Electricity Rules,
 - I.S. Standard as applicable& other statutory requirement.

GENERAL TERMS AND CONDITIONS

- (a) The above scope of work is indicative. However, if there is any other work the supplier shall carry out the same without any extra cost.
- (b) Responsibility, right and liabilities of the bidder, under this contract, will commence from the date of acceptance of the purchase order.

- (c) The work will have to be carried out in such a manner that will not cause any inconvenience to other agencies working in the site.
- (d) Prior to handing over of site, the entire site will be cleaned off debris etc.
- (e) All the materials brought to site shall accompany with appropriate paper work like challan, Invoice etc. duly verified & signed by Customer, to be submitted to REIL for payment.
- (f) Any damage to the buildings / structures / area made by bidder's workmen or by bidder's agent will be made good by bidder at their cost.
- (g) Safety of bidder's workmen or bidder's agent is responsibility of the bidder. Accordingly, risk and necessary insurance and safety cover shall be addressed by bidder.
- (h) No child labour should be employed for executing the present contract.
- (i) Bidder is required to meet all the statutory obligation with regard to work deployed by bidder for the contract such as ESI, PF, Minimum wage act Work man compensation act, Income Tax act, Employees Insurance act etc.
- (j) All tools and tackles required for installation, wiring, assembly, digging of cable trenches, earth pits etc have to be organized by the bidder. All the accessories such as power drilling machine, cutting machine, digging tools & complete set of crimping tools etc shall be organized by bidder.
- (k) All the works shall be executed strictly as per the direction of engineer in-charge at site.
- (l) **Pre-dispatch inspection of items supplied by bidders:**
- Manufacture test certificates must be furnished in advance to enable clearance to dispatch to the site.
 - On completion of inspection, the test certificates must be furnished to REIL in advance to enable clearance for dispatch to the site.
 - Material shall be inspected at manufacturing work.

NO NEAR RELATICE CLAUSE

The bidder should give a certificate that none of his/her near relative is working in REIL as defined below along with their technical bid as per the attached Annexure. In case of proprietorship firm certificate will be given by the proprietor. For partnership firm certificate will be given by all the partners and in case of limited company by all the Directors of the company excluding Government of India/Financial institution nominees and independent non-Official part time Directors appointed by Govt. of India or the Governor of the state and full time Directors of PSUs both state and central. Due to any breach of these conditions by the company or firm or any other person the tender will be cancelled and Bid Security will be forfeited at any stage whenever it is noticed and REIL will not pay any damage to the company or firm or the concerned person. The company or firm or the person will also be debarred for further participation in REIL's Tender. The near relatives for this purpose are defined as:- (a) Members of a Hindu undivided family. (b) They are husband and wife. (c) The one is related to the other in the manner as father, mother, son(s) & Son's wife (daughter in law), Daughter(s) and daughter's husband (son in law), brother(s) and brother's wife, sister(s) and sister's husband (brother in law).

SECTION – V

Annexure-I

**PERFORMA (EMD)
BANK GUARANTEE TOWARDS EARNEST MONEY DEPOSIT**

Bank Guarantee No.
Date

Rajasthan Electronics & Instruments Limited, (REIL)
2, Kanakpura Industrial Area Sirsi Road, Jaipur-302034 (Rajasthan)

Dear Sir,

In accordance with Invitation for Bids under your Bid Document No.....(Bid Document no.)M/s.
(Bidder's Name) having its registered office at (hereinafter called the bidder) wish to participate in the said Bid for Design, Supply, Installation, Testing & Commissioning and Integrated Comprehensive Maintenance for 5 years of grid connected Rooftop Solar Photovoltaic (PV) power units in residential sector across various locations in Bihar.

As an irrevocable bank guarantee against Bid Security for an amount of(Amount of EMD in Rs.) valid up to required to be submitted by the Bidder as a condition precedent for participation in the said Bid which amount is liable to be forfeited on the happening of any contingencies mentioned in the Bidding Documents.

We, the**(Bank Name& address)** guarantee and undertake to pay immediately on demand by M/s Rajasthan Electronics & Instruments Limitedthe amount of(Amount of EMD in Rs.) without any reservation, protest, demand and recourse. Any such demand made by the 'REIL' shall be conclusive and binding on us irrespective of any dispute or difference raised by the Bidder.

This Guarantee shall be irrevocable and shall remain valid up to(date of expiry of Guarantee).If any further extension of this guarantee is required, the same shall be extended to such required period (not exceeding one year) on receiving instructions from **M/s. (Bidder's Name)** on whose behalf this guarantee is issued.

This guarantee will remain in force up to and including(date of expiry of Guarantee), and any demand in respect thereof must reach the Bank not later than the above date.

Notwithstanding anything contained herein above:

- i) Our liability under this guarantee shall not exceed(Amount of EMD in Rs.)
- ii) This bank guarantee shall be valid up to(date of expiry of Guarantee).
- iii) We are liable to pay the guaranteed amount or any part thereof under this Bank Guarantee only and only if we receive from you a written claim or demand on or before (date of expiry of Guarantee).

The said letter of guarantee has been transmitted through SFMS gateway to your bank. It is advised that in your own interest, you may verify the genuineness of above letter of guarantee from your bank / branch.

Dated the date of 2020.

Bank Name
(sealed& signed)

CERTIFICATE FOR NON BLACK LISTING
(Bidder must submit it on Letter Head of the firm)

Date

To

Dy. General Manager (MM),
Rajasthan Electronics & Instruments Limited,
2, Kanakpura Industrial Area,
Jaipur-302034(Rajasthan).

Ref: NIB No.

Dear Sir,

We, M/s here by confirm that:

1. We are not blacklisted by any State Govt. / SNA / Central Govt. / Govt. Undertaking in India as on the date of tender.
2. Our agreement / work order has not been terminated on account of performance in past three years by any State Govt. / SNA / Central Govt. / Govt. Undertaking in India as on the date of tender.
3. We are not debarred by Bihar State Power Holding Company Ltd. (BSPHCL) and its subsidiary companies as on the date of tender.

This undertaking is submitted to the best of my knowledge. If at any stage it is found wrong, then REIL may take necessary action against us.

On behalf of company

Name and Designation

Tender ref.:

UNDERTAKING OF NO NEAR RELATIVE

Date

To

Deputy General Manager (MM),
Rajasthan Electronics & Instruments Limited,
2, Kanakpura Industrial Area,
Jaipur-302034
Rajasthan

Dear Sir,

I.....S/o..... R/o..... hereby certify that none of my relatives) as defined in the tender document is/are employed in REIL unit as per details given in tender document. In case at any stage, it is found that the information given by me is false / incorrect, REIL shall have the absolute right to take any action as deemed fit/without any prior intimation to me.

On behalf of company

Name and Designation

Tender ref.:

CA CERTIFICATE

Date

To

Deputy General Manager (MM),
Rajasthan Electronics & Instruments Limited,
2, Kanakpura Industrial Area,
Jaipur-302034
Rajasthan.

Dear Sir,

It is certified that M/s is falling under MSE category as per guidelines contained in the provisions of the MSMED Act, 2006 and notification No. S.P. 1722 (E) dated 05.10.2006 and having Udhog Adhar no.

We also certify that the investment in plant and machinery (Imported and indigenous) as on date is Rs.....

Chartered Accountant

Firm name:-

Signature with seal

UDIN

TENTATIVE LOCATION

S. No.	District Name
1.	KISHANGANJ
2.	SAMASTIPUR
3.	PURNEA
4.	DHARBHANGA
5.	NALANDA / BIHARSHARIF
6.	BHAGALPUR

Note: These locations are indicative, subjective to be changed as per allotment by SBPDCL / NBPDCCL.