



RAJASTHAN RENEWABLE ENERGY CORPORATION LIMITED

Tender Document

Rate Contract for

**WORK FOR DESIGN, SUPPLY, INSTALLATION, TESTING,
COMMISSIONING AND MAINTENANCE OF GRID CONNECTED
SPV POWER PLANTS**

UNDER

“ROOFTOP SOLAR POWER GENERATION SCHEME”2019-20

IN

RAJASTHAN

NIT No: 09/2019-20 Dated: 25.10.2019

Tender document cost : Rs. 5,900/-

**E-166, Yudhisthir Marg, C-Scheme, Jaipur-302001
Tel:2225859 / 2221650 / 2229341 Fax : 0141-2226028
Email ID: rrec.rooftop@gmail.com**



NIT No: 09/2019-20, Dated: 25.10.2019

This tender by RREC is for selection of vendors for the work of supply, installation, commissioning of grid connected SPV Power **Plants on behalf of Rajasthan Discoms** in Rajasthan under programme 2019-20.

This Tender Documents along with Formats, Annexures etc. is issued to –

M/s. _____

NOTE:

(i) This document is not transferable.

(ii) Though adequate care has been taken while preparing the tender Documents, the Bidder shall satisfy himself that the document is complete in all respects. Intimation of any discrepancy shall be given to this office immediately. If no intimation is received from any Bidder within seven days from the date of issue of the bid documents, it shall be considered that the bid document is complete in all respects and has been received by the Bidder.

(iii) The Rajasthan Renewable Energy Corporation Limited (RREC) may modify, amend or supplement this tender Document including Capacity Allocation.

(iv) The selection of Bidders shall be carried out through e-procurement process. Proposal/Bids are to be submitted online in electronic format on website **<http://eproc.rajasthan.gov.in>** as per tender document.

(v) Please see regularly our website www.energy.rajasthan.gov.in/rrec1 for latest up-date after issue of this tender. All modification / amendment / clarification / information etc shall be available on the website of e-procurement only.

(vi) RREC may at its discretion, extend the deadline for submission of the Proposals.

(vi) **Correspond at:-**

The Managing Director,
Rajasthan Renewable Energy Corporation Ltd.,
E-166, Yudhisthir Marg, C-Scheme,
Jaipur (Raj.), 302001

Tel: 0141-2225859 / 2221650 / 2229341

Fax: 0141-2226028

Email: rrec.rooftop@gmail.com



RAJASTHAN RENEWABLE ENERGY CORPORATION LIMITED

(Government of Rajasthan Undertaking)

E-166, Yudhisthir Marg, C-Scheme, Jaipur

CIN No. U40101RJ 1995SGC009847, Phone: 0141-2229055 / 2221650 / 2225859, Fax: 2226028

Brief of Schedule of Dates of Tender

Programme & detail of work	Design, Supply, Installation, testing, Commissioning and Maintenance for 5 Years of grid connected SPV Power Plants in the State of Rajasthan under “ Rooftop Solar Power Generation Scheme ” of RREC for 2019-20 on behalf of Rajasthan Discoms.		
Work Area:	Entire Rajasthan State.		
NIT No:	NIT No: 09/2019-20, Dated: 25.10.2019.		
Estimated Capacity of Project (Total 50 MW Capacity) {This capacity of work can be increased/decreased as per availability of Capacity & CFA allocation as sanctioned by MNRE, GoI }	Jaipur Vidyut Vitran Nigam Limited (Lot-I)	Ajmer Vidyut Vitran Nigam Limited (Lot-II)	Jodhpur Vidyut Vitran Nigam Limited (Lot-III)
	25 MW	5 MW	15 MW
Estimated Project Cost:	Rs. 135 Crores	Rs. 54 Crores	Rs. 54 Crores
Earnest Money Deposit: (To be submitted separately for each Discom/Lot)	For Established Entrepreneur		For Start-up Firms
	Rs.5.40 Lacs		Rs 2.16 Lacs
For SSI Units of Rajasthan (refer Clause 9.1)	Rs 1.35 Lacs		Rs 0.54 Lacs
For Sick Unit of Rajasthan (refer Clause 9.1)	Rs 2.70 Lacs		--
Date of downloading { The tender can be downloaded from web site http://eproc.rajasthan.gov.in }	25.10.2019,06.00 PM To 29.11.2019, 02.00 PM		
Date of Pre-bid Meeting	07.11.2019, 02.30 PM		
Last date of submission of online Pre-Bid Queries	08.11.2019, 03.00 PM (Clarification/Suggestions are invited online through the link available on the Home Page of RRECL website http://www.energy.rajasthan.gov.in/content/raj/energy-department/rrecl/en/home.html)		
Date of issue of Corrigendum in response to the pre-bid queries.	13.11.2019, 06.00 PM		
Last Date of online submission of Tender	29.11.2019, 04.00 PM		



Date of submission of Envelope-1 at RREC Head Office { in physical form }	29.11.2019, 05.00 PM
Date of Opening of online Technical bid (Cover-1 & Cover-2)	03.12.2019, 04.00 PM
Date of opening of Financial bid of eligible bidders (cover-3)	Shall be intimated to qualified bidders after evaluation of Technical bid.
Date of Completion of work.	9 Months from the date of issue of Rate Contract.
Validity of prices for taking up further work:	Till completion period.
Cost of Tender:	Rs.5,000/- plus GST@18% i.e. Rs. 5,900/- in favour of MD, RREC payable at Jaipur.
e-proc Charges:	Rs.1,000/- in favour of MD, RISL, payable at Jaipur.

NOTE:

- i) *Bidders may quote for more than one Lot. In case, they are submitting their offer for more than one Discom/Lot, they have to submit the required Earnest Money Deposit as above for each Discom/Lot separately.*
- ii) *Proposals are to be submitted online in electronic format on website **www.eproc.rajasthan.gov.in** as detailed hereunder and Documents to be submitted in physical form are also detailed hereunder:*

The bidders are requested to submit their bids prior to last date of submission to avoid Non-submission of their bids up to prescribed date & time due to non-availability / hanging of website, at either ends, at last moment or any reason whatsoever. The last date of submission of bids will not be extended on such account.

1. The bidder will have to deposit the following documents in Envelope-1 (in Hard copy) **at RREC Head Office on 29.11.2019 up to 17.00 Hrs. This is essential otherwise the bid in electronic form (Cover I, II & Cover III) of that bidder will not be opened)**

Envelope-1:(i) the DD/Banker's Cheque of prescribed cost of tender Rs. 5900/- and EMD Rs.5.40 Lacs/ 2.16Lacs by way of DD/Banker's Cheque in favour of **The Managing Director, RREC, payable at Jaipur**; Government undertakings PSUs are exempted for EMD deposition **on producing the certificate issued by competent authority**; Documentary evidence for concessional EMD (if applicable) (ii) Processing Fee of RISL Rs. 1000/- by way of DD/Banker's Cheque in favour of **Managing Director, RajCOMP Info Services Ltd. (RISL), payable at Jaipur.**

In case the amount of EMD is more than 10 Lacs, the bidder is allowed to submit the EMD in the Form of Bank Guarantee (valid for seven months)

2. **List of required Formats/documents to be submitted online duly signed digitally by Authorized Signatory:**



- 1) **Cover-1:** Upload the scanned copy of all the original documents submitted to RREC in Hard Copy (Envelope-1).
- 2) **Cover-2:** All Non-financial information in the Formats as per tender (in .pdf).
- 3) **Cover-3:** Price bid as per Format (Annexure-4) online in .xls format. This format is to be downloaded from <http://eproc.rajasthan.gov.in>, filled & uploaded back to <http://eproc.rajasthan.gov.in>. If the prices are quoted anywhere in Cover-I and/or Cover-II (Technical Bid) by any bidder, their offer will be summarily rejected.
3. The Cover-1 will be opened on 03.12.2019 at 16.00 Hrs, in the presence of bidders who wish to be present.
4. Cutting / overwriting if any in the figures of the tendered documents is required to be clarified / indicated in words, duly signed, failing which the tender may be rejected.
5. Deviation of any kind is “not” to be quoted in the financial bid. Such deviations shall not prevail.
6. The bidders should provide complete information at the time of submission of bid. If the bidders are asked to furnish some more clarification/confirmation/document, they shall be required to furnish the same within specified time, failing which the case shall be finalized /decided on the basis of available information/documents. The responsibility of ignorance of their bid on account of delay in furnishing of desired information/documents shall be of the bidder. However, if there are any shortcomings in the submission of the information which not materially affects the qualification criterion, then the Bid Evaluation Committee shall have the power to consider the facts on the merit of the case and decide the bid evaluation accordingly.
7. All tender documents should essentially be signed digitally and submitted/uploaded on <http://eproc.rajasthan.gov.in> in time as per checklist.
8. Bidders who wish to participate in this tender, will have to register on <http://eproc.rajasthan.gov.in> (bidders registered earlier on the eproc.rajasthan.gov.in, need not to get registered again). To participate in online tenders, Bidders will have to procure Digital Signature Certificate (Class II & Class III) as per requirement under Information Technology Act-2000 using which they can sign their electronic bids. Bidders can procure the same from any CCA approved certifying agency or they may contact e-Procurement Cell, Department of IT & C, Government of Rajasthan on the following address:-

e-Procurement Cell, RISL, Yojana Bhawan, Tilak Marg, C-Scheme, Jaipur, e-mail: eproc@rajasthan.gov.in.
9. Bidders are also advised to refer “Bidders Manual” available under “Downloads” section on <http://eproc.rajasthan.gov.in> for further details about the e-tendering process.
10. All the required information shall be furnished strictly in the prescribed formats only. Any information indicated other than the prescribed formats shall not be entertained. The bid shall be evaluated on the basis of information furnished in the prescribed formats only.



11. The Procurer may advise any bidder to furnish the documents in original or copy thereof duly attested by Notary for verification, in physical form on short notice of three days.
12. Correspondence for enquiries and clarifications: All correspondence in respect of the tender and submission of the Tender shall be addressed to:

The Managing Director,
Rajasthan Renewable Energy Corporation Ltd,
E-166, Yudhisthir Marg, C-Scheme,
Jaipur (Raj.), 302001
Tel: 0141-2225859 / 2229341/ 2229055, Fax: 0141-2226028
E-mail: rrec.rooftop@gmail.com

Contact Person:

Mr. S.S. Meena,
Director (Technical),
Rajasthan Renewable Energy Corporation,
E-166, Yudhisthir Marg, C-Scheme, Jaipur - 302001.
Email: rrec.rooftop@gmail.com

Mr. Sunit Mathur,
General Manager (GIPP),
Rajasthan Renewable Energy Corporation,
E-166, Yudhisthir Marg, C-Scheme, Jaipur– 302001.
Email: rrec.rooftop@gmail.com

Mr. Rajeev Singh,
Project Manager (Rooftop),
Rajasthan Renewable Energy Corporation,
E-166, Yudhisthir Marg, C-Scheme, Jaipur– 302001
Email : rrec.rooftop@gmail.com

Note: All correspondence in reference to this tender by mail should essentially be sent to Email ID: rrec.rooftop@gmail.com only.



CONTENTS

SECTION NO	TOPIC	PAGE NO.
-----	BRIEF OF SCHEDULE OF DATES	3
SECTION-1	INTRODUCTION & ABBREVIATIONS	8
SECTION-2	SCOPE OF WORK	11
SECTION-3	EXPERIENCE & COMPETENCE	17
SECTION-4	FINANCIAL CAPABILITY	19
SECTION-5	PRICE SCHEDULE	20
SECTION-6	PRE-REQUISITES AND PROPOSAL EVALUATION	21
SECTION-7	COMPLETION PERIOD	26
SECTION-8	INSTRUCTIONS TO TENDERERS	27
SECTION-9	TERMS & CONDITIONS OF TENDER	30
SECTION-10	MODE OF AWARD OF TARGETS	38
SECTION-11	WORKS CONTRACT	42
SECTION-12	STEPS TO TAKE UP WORK UNDER THIS TENDER	43
SECTION-13	LIST OF ANNEXURES	44
ANNEXURES		



SECTION – 1

INTRODUCTION & ABBREVIATIONS

1. Background

Ministry of New and Renewable Energy, Govt. of India has issued the Operational Guidelines for implementation of Phase-II of Grid Connected Rooftop Solar Programme for achieving cumulative capacity of 40 GW of Rooftop Solar (RTS) projects for the Country by the year 2022 vide O.M. No. 318/331/2019-Grid Connected Rooftop Dated 20.08.2019. Under this programme, CFA has been restructured for Residential Sector only with higher CFA upto 40% for RTS System upto 3 kW capacity. For RTS System Capacity above 3 kW and upto 10 kW, CFA of 40% would be applicable only for first 3 kW capacity and for capacity above 3 kW, the CFA would be limited to 20%. As per the Guidelines, the programme will be implemented through by Discoms, since they are in direct contact with end consumer. The Guidelines also provisioned that the Discom may use the services of State Nodal Agencies (SNAs) already engaged in promotion of Renewable Energy. Therefore, Rajasthan Discoms namely, JVVNL, AVVNL and Jd.VVNL has authorised Rajasthan Renewable Energy Corporation Limited for implementation of Rooftop Projects under MNRE's Subsidy Programme.

RREC, with the support of Financial Assistance from MNRE in Residential Sector under SPV Rooftop Programme 2019-20, wishes to select competent, experienced and financially sound manufacturers / suppliers/system integrators to supply, install, commissioning and to maintain Solar Photovoltaic Grid connected Systems in area of various districts of Rajasthan on behalf of Rajasthan Discoms. RREC would release the subsidy to the eligible manufacturers / suppliers/system integrators after installation of systems as per terms and conditions of this tender.

Above work is to be carried out on '**Turn Key Basis**' which includes identification of beneficiaries in Rajasthan, collection of their share of cost after adjusting MNRE financial assistance, design, supply of SPV systems with all accessories and equipments, installation, testing, commissioning and maintenance services for 5 years with free replacement warranty on spare parts against manufacturing defects for five years.

Expected capacity of SPV systems for the entire Rajasthan State will be 45 MW as detailed below. This quantity may further increase/decrease as per availability of allocations and CFA for this programme from MNRE, GoI.

Jaipur Vidyut Vitran Nigam Limited	Ajmer Vidyut Vitran Nigam Limited	Jodhpur Vidyut Vitran Nigam Limited
Lot-I	Lot-II	Lot-III
25 MW	5 MW	15 MW

2. Mode of Execution of Programme:

The basis of evaluation of the bids shall be the cost/rate quoted in the Price Schedule. To further clarify, installation and commissioning cost and taxes etc. shall be inclusive to the cost of supply of complete system including FIVE years comprehensive maintenance for comparison and



evaluation. Proposers are required to quote rate / cost on firm basis and no price variation on any account shall be considered.

The selected Empanelled Vendor shall identify beneficiaries to supply, install, commission systems and **provide maintenance services for 5 years with free replacement warranty on spare parts against manufacturing defects for five years.** They shall also be required to set up their repair and maintenance centres for providing effective repair/maintenance services to the beneficiaries / users and meet conditions as given in Section 2.

The Programme shall be carried out as per guidelines at Section-2 and as given hereunder:-

(i) The Empanelled Vendor shall be allowed to install the systems conforming to the MNRE specifications / guidelines after authorisation by RREC.

(ii) For this RREC shall give specific targets / limits to each selected bidder and fix prices for sale of systems to the user (beneficiaries).

(iii) The Empanelled Vendor may claim subsidy from RREC by submitting complete list of buyers alongwith full addresses, date of sales, models and makes and serial numbers of systems & PV modules and BOS supplied along with the photographs of installed system duly verified by RREC's field Project Officer/Project Manager or authorised representative from RREC Head Office.

3. Abbreviations / Terms:

i)	RREC	Rajasthan Renewable Energy Corporation Limited
ii)	Rajasthan Discoms	Distribution Companies or their franchise engaged in supply of electricity namely, JVVNL, AVVNL and Jd.VVNL.
iii)	JVVNL	Jaipur Vidyut Vitran Nigam Limited (Jaipur Discom) or their franchise engaged in distribution and supply of electricity in 12 Districts of Rajasthan, namely Jaipur, Dausa, Alwar, Bharatpur, Dholpur, Kota, Bundi, Baran, Jhalawar, Sawai Madhopur, Tonk and Karauli
iv)	AVVNL	Ajmer Vidyut Vitran Nigam Ltd, (Ajmer Discom) or their franchise engaged in distribution and supply of electricity in 11 districts of Rajasthan, namely Ajmer, Bhilwara, Nagaur, Sikar, Jhunjhunu, Udaipur, Banswara, Chittorgarh, Rajsamand, Doongarpur and Pratapgarh
v)	Jd.VVNL	Jodhpur Vidyut Vitran Nigam Ltd, (Jodhpur Discom) or their franchise engaged in distribution and supply of electricity in 10 districts of Rajasthan, namely Jodhpur, Pali, Sirohi, Bikaner, Hanumangarh, Sri Ganganagar, Barmer, Jalore, Jaisalmer and Churu.
vi)	Manufacturers :	Manufacturers of SPV Modules (Meeting technical specification and other parameters specified by MNRE).
vii)	Beneficiary	Residential Category Consumers of Discoms in Rajasthan State eligible for Subsidy as per MNRE Guidelines
viii)	EPC	Engineering, Procurement and Commissioning of Complete project as per terms and conditions of the tender documents
ix)	CFA	Central Financial Assistance/ Subsidy 40% / 20% of lowest



		cost discovered or MNRE Banchmark cost for the year 2019-20, whichever is lower.
x)	DSC	Digital Signature Certificate to upload on-line tenders on http://eproc.rajasthan.gov.in
xi)	RFP :	Request for Proposal.
xii)	EMD :	Earnest Money Deposit/Bid Security.
xiii)	SD :	Security Deposit.
xiv)	Performance security (PSD):	Security amount as per clause 9.2 (which will be deducted from payment against supply and installation) for warrantee period.
xv)	Systems	SPV Rooftop Grid Connected Systems.
xvi)	Proposal	Tender / Bid / Quotation.
xvii)	Proposer	Tenderer/Bidder/Applicant.
xviii)	Affiliate	A company that either directly or indirectly controls / is controlled by / is under common control with a Bidder and “control” means ownership by one company of at least 26% of the voting rights of the other company.
xix)	Cost of System	Total Price of System.
xx)	Amount payable by RREC	Subsidy amount only.
xxi)	Subsidy	Capital cost support to eligible beneficiary under MNRE, GoI Roof Top Scheme (As per the Sanction received by MNRE).
xxii)	CMC	Maintenance services for 5 years with free replacement warranty on spare parts against manufacturing defects for five years.
xxiii)	Empanelled Vendor	The successful bidder(s) to whom Rate Contract has been awarded.
xxiv)	Envelope-1	Sealed Envelope having : (i) DD/Banker’s Cheque of prescribed cost of tender and EMD/ Exemption Certificate as per norms (if any)/ Documentary evidence for concessional EMD (if any) by way of DD/Banker’s Cheque in favour of The Managing Director, RREC, payable at Jaipur, (ii) the prescribed Processing Fee of RISL by way of DD/Banker’s Cheque in favour of Managing Director, RajCOMP Info Services Ltd. (RISL), payable at Jaipur.

SIGNATURE OF AUTHORISED
SIGNATORY WITH SEAL



SECTION – 2

SCOPE OF WORK

Scope of work covers identification of beneficiaries as per RREC's conditions, Design, supply, installation, testing, commissioning and maintenance of SPV Grid connected Rooftop Systems **in Rajasthan** conforming to technical specification enumerated in relevant JNNSM guidelines and amended from time to time.

Detailed scope of work is given here under:-

2.1 Work of installation of SPV grid connected Systems shall involve :

- (i) Identification and motivation of prospective beneficiaries.
- (ii) Preparation of Detailed Project Report (DPR) of the proposed Proposal of SPV Power Plant.
- (iii) Obtaining No objection certificate from concerned DISCOM for grid connectivity.
- (iv) Collection of balance cost payable by beneficiary after deducting subsidy payable by RREC.
- (v) Entering into supply and comprehensive maintenance contract (CMC) agreements with beneficiaries. CMC shall be for five years as per Maintenance services for 5 years with free replacement warranty on spare parts against manufacturing defects for five years..
- (vi) Design, supply, storage, civil work, erection, testing and commissioning of SPV grid connected Power Plant as per schedule given at the time of allotting targets.
- (vii) The work covers Design, supply, installation, commissioning and comprehensive maintenance for FIVE years.
- (viii) **Establishing “After sales service centres” in concerned area to cater the maintenance needs of beneficiaries.**

RREC reserves the right to allot any area(s) / districts to any Empanelled Vendor among the all Empanelled Vendors.

2.2 PROJECT COST

2.2.1 The Project cost 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 Bid Price cover shall the obligations mentioned in the Bidding Documents in respect of Design, Supply, Erection, Testing and Commissioning including Warranty, Operation & Maintenance for a period of 5 years goods and services including spares required if any, during the 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.



- 2.2.2 The price quoted is on lump sum turnkey basis including all taxes & duties applicable and the bidder is responsible for the total scope of work described as above.
- 2.2.3 The project cost shall remain firm and fixed and shall be binding on the Successful Bidder till completion of work for payment of subsidy amount irrespective of his actual cost of execution of the project. No escalation will be granted on any reason what soever. 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 what soever.
- 2.2.4 The 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.
- 2.2.5 The operation & maintenance of Solar Photo voltaic Power Plant would include warranty against wear, tear, overhauling, machine breakdown, insurance, and replacement of defective modules, invertors/ Power Conditioning Unit(PCU), spares, consumables & other parts for a period of 5 years.

The modules shall be cleaned by the Empanelled Vendor quarterly or as and when required during entire O&M period.

It is the responsibility of the Empanelled Vendor to provide the Remote Monitoring System facility to the Owner. Necessary hardware arrangements shall be provided by the Empanelled Vendor. Periodic data charges towards data pack and Internet/Wifi connectivity for maintaining Remote Monitoring System shall be the responsibility of Beneficiary. The Empanelled Vendor shall provide rights to RREC/Discom to access the performance data of the inverter by sharing the user ID and password, as and when required to monitor the performance.

- 2.2.6 The **Project cost** shall be specified by the successful **Bidder's quote @ Rs/Wp (Watt peak) for each project**. The project cost shall be in accordance with all terms, conditions, specifications and other conditions of the Contract as accepted by the RREC and incorporated into the Rate Contract order.
- 2.2.7 The Empanelled Vendor shall be responsible and take an Insurance Policy for transit-cum- storage-cum-erection for all the materials to cover all risks and liabilities for supply of materials on site basis, storage of materials at site, erection, testing and commissioning. **The Empanelled Vendor shall also take appropriate insurance during O&M period, if required on their own cost.**
- 2.2.8 The Empanelled Vendor shall also take insurance for Third Party Liability covering loss of human life, engineers and work men and also covering the risks of damage to the third party / material/ equipment/ properties during execution of the Contract. Before commencement of the work, the Empanelled Vendor will ensure that all its employees and representatives are covered by suitable insurance against any damage, loss, injury or death arising out of the execution of the work or in carrying out the Contract. Liquidation, Death, Bankruptcy etc., shall be the responsibility of Empanelled Vendor.



2.3 Net metering of Power :

Net metering is the concept which records difference between export of generated energy and import of energy from DISCOM grid during billing cycle. The SPV power consumer shall pay for the net energy in a billing period as per applicable retail supply tariff as determined by regulatory commission, if the supplied energy by the Discom is more than the injected energy by the solar PV sources of the consumer(s).

Rajasthan Electricity Regulatory Commission (RERC) has issued “**Regulation for Net Metering and Grid Connectivity**” on 26th February, 2015. **The SPV Power generators/beneficiaries going for installation of SPV Power Plants under this scheme will also be governed by the rules & regulations of Net Metering scheme as notified by RERC and amended time to time.**

The Empanelled Vendor shall bear the entire cost of metering arrangement provided including its accessories. The fee and other charges such as security deposit payable to office of DISCOM & Electrical inspector will be payable by beneficiary separately. The installation of meters including CTs & PTs, wherever applicable, shall be carried out by the Empanelled Vendor as per the procedures in vogue of the Discom(s) with their permission.

2.4 PLANT PERFORMANCE EVALUATION:

RREC shall monitor the performance of the grid connected SPV Power Plants without battery back up as per feasible subject to availability of proper measuring equipment being in vogue in DISCOM as under :

The successful bidder shall be required to meet minimum guaranteed generation with **Performance Ratio (PR)** at the time of commissioning and related **Capacity Utilization Factor (CUF)** as per the DNI level for the location during the O&M period. PR should be shown minimum of 75% at the time of inspection for initial commissioning acceptance to qualify for release of subsidy. Minimum CUF of 15% should be maintained for a period of 5 years for release of performance related security deposit. **For CUF less than 15%, the penalty can be imposed for the loss of energy generation @ APP of DISCOM for that year subject to force majeure conditions.** The Empanelled Vendor should send the periodic plant output details to RREC for ensuring the CUF. The PR will be measured at Inverter output level during peak radiation conditions. The PR and CUF will be evaluated considering 100% grid availability.

2.5 Eligible Beneficiary for SPV Grid connected Systems:

Type of residential sector	CFA (% of benchmark cost or cost discovered through competitive process whichever is lower)
Residential sector (max. up to 3 kW)	40% *
Residential sector (above 3 kW and up to 10 kW)	40% upto 3 kW Plus 20% for RTS system above 3 kW and upto 10 kW
Group Housing Societies/Residential Welfare Associations (GHS/RWA) etc. for common facilities up to 500 kWp (@ 10 kWp per house),	20%



with the upper limit being inclusive of individual rooftop plants already installed by individual residents in that GHS/RWA	
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**The residential sector users may install RTS plant of even higher capacity as provisioned by RERC; however, the CFA will be limited up to 10 kWp capacity of RTS plant.*

MNRE vide its notification No. 318/33/2019-Grid Connected Rooftop dated 16/7/2019 have decided the following bench mark cost which is inclusive of total system cost and its installation, commissioning, transportation, insurance, five years AMC/CMC and applicable fees and taxes.

S. No.	Capacity	Bench Mark Cost (Rs./Wp)
1	Above 1 kW and upto 10 kW	54
2	Above 10 kW and upto 100 kW	48
3	Above 100 kW and upto 500 kW	45

In the event that the discovered lowest price is higher than the benchmark cost of MNRE in such cases the benchmark cost shall only be treated as lowest price.

The details of eligible beneficiary buildings, admissible for CFA under MNRE Rooftop Program and CFA amount will be as per MNRE Office Memorandum No. 318/331/2017-Grid Connected Rooftop dated 20.08.2019. The detailed Notification is attached as Annexure-18 in the tender document.

2.6 PROJECT ALLOCATION AND SANCTION :

- 2.6.1 The identification of the projects (roof tops) at the time of bidding is not mandatory. The Bidders, however, in their own interest are advised to make a preliminary survey of availability of rooftops in the city/ cities mentioned under scope of work.
- 2.6.2 The Successful Bidders selected shall be issued Rate contract and Letter of Allocation (LOA) indicating the allocated capacity & Project Cost etc.
- 2.6.3 The bidders who have been notified as Successful Bidders, shall be given 6 months from the date of issue of Rate Contract for identification of rooftops and submission of Project sanction documents online to RREC Portal. User ID and password to every successful firm will be provided to submit these documents:

1. Detailed Project Report,
2. Agreement between the empanelled vendor and the owner of Project/ building (Notarised original agreement should be enclosed).
3. No objection Certificate from the concerned DISCOM for grid connectivity
4. ID Proof and passport size photograph of Consumer
5. Latest Electricity Bill for sanction. Further, Successful Bidders can start submitting their Project sanction documents as soon as they receive **Rate Contract from RREC**. If after 4 months (Four months), the successful bidder could not identify rooftop(s) capacity up to the allocated capacity and submit Project sanction documents, RREC may allow another 2 (two) more months provided the successful bidder could submit Project sanction document for at least 50% of the allocated capacity in first four



months and also intimates RREC their intent to identify their remaining capacity in the next 2 months.

If the successful bidders fail to identify the projects for allocated capacity in full or part, within the time limit (i.e maximum 6 months), in such case, it will be assumed that the bidder is not capable to complete the allocated work and in this situation penalty will be imposed on the balance quantity @2.5% on subsidy amount and this balance allocation will be awarded to another bidder based on their performance w.r.t. their initial allocation.

If the bidder(s), who are declared as L-1 in each Slab(s), surrender their awarded capacity, then the penalty will be imposed on the surrendered quantity @10% on subsidy amount and this surrendered allocation will be awarded to another bidder.

- 2.6.4 If there is some left out quantity found due to incapability of the bidder at any time from the date of issue of LOA, this will be offered to other Successful Bidder(s) having ready proposals with them.
- 2.6.5 The entire responsibility of identification of buildings / beneficiaries lies with the Bidder.
- 2.6.6 RREC issue the Sanction Letter(s) for the Project(s) indicating the subsidy amount(s) which will be disbursed in line with the provisions of the tender document. The Bidder shall complete the design, engineering, manufacture, supply, storage, civil work, erection, installation, testing & commissioning of each project within 3 months period from the date of issue of sanction letter or date of completion of total project, whichever is later.

2.7 Subsidy Pattern:

As per guidelines of Ministry of New and Renewable Energy, GOI is providing 40% / 20% capital subsidy under SPV Roof Top Programme to the buildings as detailed at clause : 2.5. The minimum capacity of rooftop SPV Power Plant to be installed shall be more than 1kW and the maximum capacity shall be 500 kWp for single site.

Note:

- (i) All provisions as amended by MNRE, GoI from time to time in respect of subsidy, norms of admissible beneficiary and allowable capacity of PV systems shall be applicable to this scheme accordingly.
- (ii) Subsidy will be 40% / 20% of project cost arrived as per MNRE Guidelines. Remaining cost will be borne by beneficiary.

2.8 Model of SPV Systems and tentative Quantities:

RREC proposes to take up installation of grid connected PV Power Plants {without Battery Back up} under this programme. The details of tentative quantities are as under:



S. No.	PV System Models:	Individual system PV Capacity	Total Tentative Targets under the Scheme		
			JVVNL	AVVNL	Jd.VVNL
1.	SPV Grid connected Power Plants without Battery Bank:	Above 1 kWp to 500 kWp	25 MW	5 MW	15 MW
			{ This capacity can further increased/decreased as per allocation by MNRE }		

2.9 Capacity of proposals :

The bidders shall furnish their proposal for following PV Capacity Systems:

S. No.	Category of bidders:	PV Capacity for proposal :
1.	Established Entrepreneurs:	500 kWp
2.	Start-up Firm	200 kWp

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SECTION – 3
EXPERIENCE AND COMPETENCE

The Bidder shall have Electrical Contractor License of any State across India.

Following are the required for considering responsiveness of the bidders. To substantiate this, necessary documents, certificates shall have to be attached with the proposal

(A) Established Entrepreneur :

- (i) The Bidder should be either a body incorporated in India under the Companies Act, 1956 or Companies Act, 2013 including any amendment thereto and engaged in the business of Solar Power/Renewable Energy.

OR

The Bidder should be either a body incorporated in India under the Limited Liability Partnership Act 2008; A subset of Companies Act, 2003 and engaged in the business of Solar Power/Renewable Energy.

A copy of certificate of Incorporation should be furnished along with the bid in support of above.

OR

The Bidder should be a Firm registered under Partnership Act in India.

A copy of certificate of Form-G/Copy of Registered Partnership Deed should be furnished along with the bid in support of above.

OR

The Bidder should be a Firm registered as Sole Proprietor under Shop Act.

A copy of certificate of TIN Number should be furnished along with the bid in support of above.

- (ii) The bidder should have minimum two years experience of successful installation of Grid connected PV projects as detailed under:

- (a) The bidder should have cumulative experience of executing $\geq 250\text{kWp}$ Grid connected SPV Power Plants Installations in India during 2017-18 and 2018-19 & up to date of submission of bid.

OR

The bidder should have cumulative experience of executing $\geq 500\text{kWp}$ Grid connected SPV Power Plants and/or Off-grid SPV systems installations in India during 2017-18 and 2018-19 & up to date of submission of bid.



- (b) The details of projects executed during period mentioned above should be listed in Annexure-3(A). A certificate issued by the SNA/ Govt. Organisation/SECI/Project Owner towards the satisfactory installation and functioning of the power plants to be furnished by the bidder.

(B) Start-up Firms :

- (i) The Bidder should be either a body incorporated in India under the Companies Act, 1956 or Companies Act, 2013 including any amendment thereto and framed for business of Solar Power/Renewable Energy.

A copy of certificate of Incorporation should be furnished along with the bid in support of above

OR

The Bidder should be either a body incorporated in India under the Limited Liability Partnership Act 2008; A subset of Companies Act, 2003 and engaged in the business of Solar Power/Renewable Energy.

A cop of certificate of Incorporation should be furnished along with the bid in support of above.

OR

The Bidder should be a Firm registered under Partnership Act in India.

A copy of certificate of Form-G/Copy of Registered Partnership Deed should be furnished along with the bid in support of above.

OR

The Bidder should be a Firm registered as Sole Proprietor under Shop Act.

A copy of certificate of TIN Number should be furnished along with the bid in support of above.

- (ii) One of the Director/Proprietor of the bidder's Firm should posses BE/B.TECH/MBA or Equivalent Qualification.

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SECTION – 4

FINANCIAL CAPABILITY

Following are required for considering responsiveness regarding financial capability of the bidders:

(A) Established Entrepreneur :

The bidder has financial capability to take up the proposed work to be supported by Audited balance sheet for any three years from 2016-17, 2017-18, 2018-19 and 2019-20 (in case of 2019-20, provisional balance sheet along with CA certificate for 6 months period should be attached) and there should be **Minimum Average Annual Turnover of Rs. 1.00 Crore**. It is further clarified that the total turnover of any three years {2016-17, 2017-18, 2018-19 and 2019-20} should be Rs. **3.00 Crores or more**.

(B) Start-up Firms :

No financial turnover limit is mandatory for start-up firms.

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SECTION – 5

PRICE SCHEDULE

The bidder shall quote their rates / costs for Design, supply, installation, commissioning including FIVE years free comprehensive maintenance including all taxes etc. in format as per **Annexure-4 online only.**

The bidder has to execute a Annual Comprehensive maintenance Contract for a period of five years with the beneficiary. Maintenance services for 5 years with free replacement warranty on spare parts against manufacturing defects for five years.

Note:

- i) It will be mandatory for Bidders under Established Category to quote their prices for all the four Slabs (A,B,C & D) for Discom(s)/Lot(s) of their choice only.
- ii) The Start-up firms are eligible to execute the Projects upto 10 kW capacity only, therefore, Start-up firms are advised to submit their price bid for Slab-A and Slab-B only. If such firms submit their offers for Slab-C and Slab-D, such offers will not be considered for Evaluation.
- iii) If the prices are quoted anywhere in Cover-I and/or Cover-II (Technical Bid) by any bidder, their offer will be summarily rejected.

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SECTION – 6

PART - A

PRE-REQUISITES AND PROPOSAL EVALUATION

1. Pre-requisites:

Following are the pre-requisites for the bidder to be considered responsive to this tender:

(A) **Established Entrepreneur:**

(i)	The Bidder should be either a body incorporated in India under the Companies Act, 1956 or Companies Act, 2013 including any amendment thereto and engaged in the business of Solar Power/Renewable Energy. OR The Bidder should be either a body incorporated in India under the Limited Liability Partnership Act 2008; A subset of Companies Act, 2003 and engaged in the business of Solar Power/Renewable Energy. A copy of certificate of Incorporation should be furnished along with the bid in support of above. OR The Bidder should be a Firm registered under Partnership Act in India. A copy of certificate of Form-G/Copy of Registered Partnership Deed should be furnished along with the bid in support of above. OR The Bidder should be a Firm registered as Sole Proprietor under Shop Act. A copy of certificate of TIN Number should be furnished along with the bid in support of above.
(ii)	The bidder has financial capability to take up the proposed work to be supported by Audited balance sheet for any three years from 2016-17, 2017-18, 2018-19 and 2019-20 (in case of 2019-20, provisional balance sheet along with CA certificate should be attached) and there should be Minimum Average Annual Turnover of Rs. 1.00 Crore in last three years. It is further clarified that the total turnover of any three years {2016-17, 2017-18, 2018-19 and 2019-20} should be Rs. 3.00 Crores or more. Please refer Section-4 of this Bid.
(iii)	The bidder should have minimum two years experience of successful installation of Grid connected PV projects. (a) The bidder should have cumulative experience of executing $\geq 250\text{kWp}$ Grid



	connected SPV Power Plants Installations in India during 2017-18 and 2018-19& up to date of submission of bid. OR The bidder should have cumulative experience of executing $\geq 500\text{kWp}$ Grid connected SPV Power Plants and/or Off-grid SPV systems installations in India during 2017-18 and 2018-19 & up to date of submission of bid + (b) The details of projects executed during period mentioned above should be listed in Annexure-3(A). A certificate issued by the SNA/ Govt. Organisation/SECI/ Project Owner towards the satisfactory installation and functioning of the power plants to be furnished by the bidder.
(iv)	Details of 'After Sales & Service Centre' existing and proposed to be set up in the State of Rajasthan. Refer Annexure 3(B) & 3(C).
(v)	The bidder should have valid GST and PAN registration certificate. Registration document (s) to be provided by the bidder where it is presently operational/Company is registered (Copy to be furnished in support).
(vi)	The Bidder shall have Electrical Contractor License of any State across India.

(B) Start-up Firms :

(i)	The Bidder should be either a body incorporated in India under the Companies Act, 1956 or Companies Act, 2013 including any amendment thereto and framed for business of Solar Power/Renewable Energy. A copy of certificate of Incorporation should be furnished along with the bid in support of above OR The Bidder should be either a body incorporated in India under the Limited Liability Partnership Act 2008; A subset of Companies Act, 2003 and engaged in the business of Solar Power/Renewable Energy. A copy of certificate of Incorporation should be furnished along with the bid in support of above. OR The Bidder should be a Firm registered under Partnership Act in India. A copy of certificate of Form-G/Copy of Registered Partnership Deed should be furnished along with the bid in support of above. OR The Bidder should be a Firm registered as Sole Proprietor under Shop Act. A copy of certificate of TIN Number should be furnished along with the bid in support of above.
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(ii)	One of the Director/Proprietor of the bidder's Firm should possess BE/B.TECH/MBA or Equivalent Qualification.
(iii)	Details of 'After Sales & Service Centre' existing and proposed to be set up in the State of Rajasthan. Refer Annexure 3(B) & 3(C).
(iv)	The bidder should have valid GST and PAN registration certificate. Registration document (s) to be provided by the bidder where it is presently operational/Company is registered (Copy to be furnished in support).
(v)	The Bidder shall have Electrical Contractor License of any State across India.

Note:

(i) The bidder must fill up above information clearly in enclosed sheet and attach all required documents (self attested) in support as at a glance Techno- Commercial qualification details.

(ii) If supporting documents (self attested) are not attached for each eligible criteria above, the bid shall be rejected without further reference.

2. **Submission** :

- First the **Cover-1** containing scanned copies of DD's of (1) Tender Cost, (2) RISL e-proc charges, (3) EMD/Exemption certificate (if applicable) and Documentary evidence for concessional EMD (if applicable) shall be opened and checked for confirming the eligibility for opening Cover-2 (Technical bid).
- Then **Cover-2** (Technical bid) shall be opened of those bidders who confirms as per 2(a).
- The evaluation of techno- commercial bid will be done & price bids (**Cover-3**) through e-procurement only of those bidders will be opened, who are found technically eligible and qualified.
- The basis of evaluation shall be the cost/rate quoted in the Price Schedule Annexure-4 for each model separately. To further clarify, cost of supply, installation & commissioning along with maintenance and warranty and all applicable taxes shall be summed up for comparison and evaluation. Bidders are required to quote rate/cost on **FIRM** basis and no price variation on any account shall be considered.

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PART – B
PROPOSAL EVALUATION
Check list for evaluation

The bidder shall declare himself as Established bidder or Start-up Firm as per pre-requisite requirement of RREC and then submit the details of their credentials as under :

Envelope 1

S. No.	Details required	Details of Attachment
1	Cost of Tender: in favour of Managing Director, RREC payable at Jaipur.	DD/ Banker's Cheque: Date: Amount :
2	e-proc Charges: in favour of Managing Director, RISL, payable at Jaipur.	DD/ Banker's Cheque: Date: Amount :
3	EMD in favour of Managing Director, RREC, payable at Jaipur;	DD/ Banker's Cheque /Exemption certificate (if applicable) and Documentary evidence for concessional EMD (if applicable). Date: Amount :

Government undertakings PSUs are exempted for EMD deposition **on producing the certificate issued by competent authority.**

Bidders may quote for more than one Lot. In case, they are submitting their offer for more than one Discom/Lot, they have to submit the required Earnest Money Deposit for each Discom/Lot separately.

Bidders under Start-up Category may quote for any one of the Discom/Lot of their choice. They are not allowed to submit their offer for more than one Discom/Lot.

Technical Bid: The bidder should upload (in Cover-II online) duly signed complete bid document, required certificates and information as instructed

S. No.	Details required;	Details of Attachment	Page No. Of self attested attached document
1.	As per Section-6(Part-A): 1A or B (i) (As applicable)		
2.	As per Section-6(Part-A): 1A or B (ii) (As applicable)		
3.	As per Section-6(Part-A): 1A(iii) (As applicable)		
4.	Details of 'After Sales & Service Centre' existing		



	and proposed to be set up in the State of Rajasthan. Refer Annexure 3(B) & 3(C).		
5. (i)	The bidder should have valid GST and PAN registration certificate . Registration document (s) to be provided by the bidder where it is presently operational/Company is registered. A. Copy to be furnished in support. B. Tax clearance certificate by the authority concerned.		
(ii)	The Bidder shall have Electrical Contractor License of any State across India.		
6.	Duly signed Bid Documents (on Each and every page in confirmation of acceptance of Terms and Condition of Bid)		
7.	Authorisation Certificate (If bid is submitting by any authorised person/firm/agent on behalf of original bidder.)		
8.	Others Certificates (if required) in support of clarification of technical requirements.		

Note:-

- The information in the above table should be filled properly.**
- If any document submitted in support of above parameters found false, the tender will be disqualified and EMD and security Deposit shall be forfeited and bidder shall be blacklisted.**
- Cutting should be verified by the signature with seal on every attempt and overwriting not allowed.**
- Hard Copies of the documents (except envelope-1) will not be accepted.**

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SECTION – 7

COMPLETION PERIOD

RREC proposes to take up work of SPV Grid connected SPV systems installation under this programme as detailed at section-2 and allocations of PV capacity shall be carried out and completed within 9 months from the date of issue of Rate Contract. The firm shall submit bills to respective Project Managers/ Officers on monthly basis along with required papers and obtain receipt of the same from PO office. RREC HQ will be informed about this along with receipt of PM/PO office & list of beneficiaries within next 7 days (i.e. 7th day of every month).

The extension of time period for implementation of the programme is solely on the discretion of the tendering authority.

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SECTION – 8

INSTRUCTIONS TO TENDERERS

- 8.1 Bidders are required to furnish all information and documents as called for in this Document in English Language. Any printed literature furnished by the proposer may be in another language, provided that this literature is accompanied by an English translation, in which case, for the purpose of interpretation of the document, the English version will govern.
- 8.2 **(A) The consortium proposals shall be acceptable only from Established bidders along with any start Up firms as under :**
- (a) The lead member **(always the established bidder)** would have to submit “**Consortium Agreement**” – Annexure-14 (Copy enclosed) along with the tender document.
 - (b) The lead member undertakes the responsibility for all obligations and liabilities relating to the project and in accordance with the terms of this Rfp.
 - (c) The work would be awarded to Lead member and RREC would acknowledge other consortium member in work award letter and other communications.
 - (d) All payment from RREC would be made only to Lead member.
 - (e) Only one agreement with only one party will be accepted under consortium agreement.
- This document is not transferable.**
- (B)** Bidder can use the technical and financial strength of its Parent Company/ Affiliate’s to fulfill the Technical and/or Financial Eligibility criteria. In such case, Bidders shall submit an Undertaking from the Parent Company as per Annexure-17 and also furnish a certificate of relationship of Parent Company or Affiliate with the Bidder as per Annexure-16, Company Secretary certificate towards shareholding pattern of the Parent Company and the Bidder along with a Board resolution from the Parent Company. It is necessary to fulfill qualification criterion (Technical and/or financial) individually either by bidder or its parent company / affiliates.
- 8.3 The Proposal received after the closing date and time shall not be considered.
- 8.4 Government undertakings PSUs are exempted for EMD deposition on producing the certificate issued by competent authority.
- 8.5 The documents shall be properly checked and signed before uploading for submission of proposals.
- 8.6 Transfer of document purchased by one party to another is not permissible.
- 8.7 Intending bidders are required to carefully go through the instructions included in the document and furnish complete information, necessary documents and schedules.



- 8.8 Any applicant wishing to undertake visit to area to become familiar with site conditions may do so. For any guidance in this respect, applicant may contact Director (Technical) / General Manager (GIPP), Rajasthan Renewable Energy Corporation.
- 8.9 All costs towards site visit and submission of documents etc. shall be borne by the applicants themselves.
- 8.10 Applicants are informed that RREC is neither under any obligation to select any applicant, nor to give any reason for either qualifying or disqualifying any applicant. RREC is also not under any obligation to proceed with the programme or any part thereof.
- 8.11 At any time prior to opening of price proposals, RREC either at their own initiative or in response to clarifications requested by a prospective tenderer may modify tender by issuing an amendment. Such amendment(s) shall be up loaded on e-proc site.
- 8.12 The proposals as submitted shall invariably indicate that proposal is firm and that proposals shall remain valid and open for a period of not less than six months from the date of opening.
- 8.13 After opening of proposals and till final selection of successful bidders(s) no correspondence of any type will be entertained, unless called for by RREC. Any type of uncalled for clarifications on prices and or rebates shall not be accepted.
- 8.14 Any deviation from any clause of this document must be properly spelt out in a deviation statement to be submitted along with the proposal, giving details of page number and clause number and detailing the deviation. RREC reserves the right to accept or reject any deviation or modify the relevant clause of the document to the extent required by the deviation. Deviation statements in the prescribed Performa (Annexure-5) must be attached with the proposal.
- 8.15 RREC will review the proposals to determine whether the proposals are substantially responsive to the requirement of this document. Proposals considered non-responsive are liable for rejection.
- 8.16 RREC shall take up detailed evaluation of the responsive proposals only.
- 8.17 RREC attaches great importance to maintenance of the systems as it is felt that without proper maintenance after installation of system, consumers may be deprived of the benefits of electricity. To achieve this objective successful bidder shall establish after-sales service network in the area of installation of systems. This may consist of service centre at a convenient place to be reached by a beneficiary. It shall have spares for the system and repair facility.
- 8.18** Empanelled Vendor shall provide a guarantee card and operation and maintenance manual in English or Hindi script to each beneficiary. Beneficiaries shall also be educated through brochures about do's & don't on the system. The details of after sales service centres along with telephone numbers & contact persons of firm & details of RREC offices, address, telephone numbers provided to each beneficiary.



- 8.19 It may be carefully noted that maintenance of SPV Systems includes maintenance of all items including all accessories. Complete SPV systems shall bear a warranty for a minimum period of 5 years and solar modules shall have warranty for minimum 10 years against manufacturing defects and performance.

Bidders shall have at least one no. of service centre within the DISCOM and shall have adequately trained staff available at service centres for repair and maintenance of Solar PV Systems. It shall be the responsibility of successful bidder to give required service as and when required to the beneficiary. Bidders will ensure that necessary spares are always available with their service centres to provide necessary after sales service to the customers during the warranty period.

- 8.20 The bidder must quote the prices strictly in the manner as indicated in the price schedule, failing which proposal is liable for rejection.
- 8.21 The bidder should sign the proposal form on each page and also at the specified location. Each and every paper enclosed must be given a page no. like 1,2,3,..... etc. & a bid summery must be enclosed along with covering letter on letter Head of firm.
- 8.22 Successful bidder will be required to enter into an agreement with submission of required Security deposit amount for each Discom(Lot) separately in the prescribed format (Annexure-7) within scheduled timeline as described in work order/LOA. In the vent of failure of bidder the full earnest money deposited can be stand forfeited.

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SECTION – 9

TERMS & CONDITIONS

THE WORK OF SUPPLY & INSTALLATION COMMISSIONING & COMPREHENSIVE MAINTENANCE FOR FIVE YEARS OF GRID CONNECTED SPV SYSTEMS

- 9.1 Intending bidder shall have to deposit Tender Cost, e-proc. Charges earnest money in the form of Demand Draft / Bankers cheque/ Exemption certificate (if applicable) without which tender will not be considered. (Amount and to whom /in favour of are mentioned.)**

Government undertakings PSUs are exempted for EMD deposition on producing certificate issued by competent authority.

All provisions regarding exemptions of EMD shall be as per provisions of RTPP Act and GF&AR of GoR will be applicable. Whereas it is described: Under rule 57 (2)(a)(i) of GF&AR – Part-II (FD Order No. F1(1)FD/GF&AR/93-II, dated: 01/07/1996.

In order to avail the benefits of concessional Bid Security in Joint Venture/ Consortium, all the partners of Joint Venture/Consortium must be Small Scale Industries of Rajasthan.

Undertakings, corporations, autonomous bodies, registered societies, corporative societies which are controlled/ managed by Government, Government Undertakings and companies of Union Government and Government of Rajasthan.

As per RTPP Act 2013, Rule 42(2) in case of open competitive bidding, two-stage bidding, rate contract, electronic reverse auction, bid security shall be 2% or as specified by the State Government of the estimated value of subject matter of procurement put to bid. In case of small scale industries of Rajasthan it shall be 0.5% of the quantity offered for supply and in case of sick industries, other than small scale industries, whose cases are pending with Board of Industrial and Financial Reconstruction, it shall be 1% of the value of Bid. Concessional bid security may be taken from registered bidders as specified by the State Government. Every bidder, if not exempted participating in the procurement process shall be required to furnish the bid security as specified in the tender document.

As per RTPP Act 2013, Rule 42(3) In lieu of bid security, a bid securing declaration shall be taken from departments of State Government and Undertakings, corporations, autonomous bodies, registered societies, corporative societies which are controlled/ managed by Government, Government Undertakings and the Central Government.



- 9.2 (i) The Earnest Money will be refunded to the unsuccessful Bidders only after finalisation of the proposals and agreements with successful bidders and in case of successful Bidders it may be adjusted if deposited in cash or released after submission of required SD.
- (ii) Security Deposit: The successful bidder shall be required to furnish security deposit @ 5% against order value at the time of Award of Contract and Signing of Agreement.
- (a) Security Deposit shall be solicited from all successful bidders except the departments of the State Government and undertakings, corporations, autonomous bodies, registered societies, co-operative societies which are owned or controlled or managed by the State Government and undertakings of the Central Government. However, a declaration shall be taken from them.
- (b) The amount of security deposit in case of Small Scale Industries of Rajasthan shall be one percent of the order value and in case of sick industries, other than Small Scale Industries, whose cases are pending before the Board of Industrial and Financial Reconstruction (BIFR), it shall be two percent of the amount of supply order.
- (iii) The earnest money of successful bidder may be adjusted towards required 5% security deposit against order value at the time of execution of agreement, in case of cash deposited EMD. Balance amount of security deposit amount, if any after adjusting EMD should be deposited in the form of DD/Bank guarantee(valid for 18 months) at the time of execution of agreement. Further it should be revised according to further allocation of work/targets also. The Security Deposit shall be released to the successful Bidder(s) within three (3) months of Completion of Allocated Capacity.
- (iv) The 20% amount deducted as per clause 9.7 will be the part of performance security which will retained with RREC upto the warrantee period.
- (v) After completion of total work under this contract, the total requirement of 10% of cost of projects as Performance Security will be calculated, if the Empanelled Vendor submit this required Performance Security in the form of Bank guarantee of RBI Scheduled banks valid for 66 months from date of completion of project, the amount with RREC as Performance Security deducted from payment will be released to the Empanelled Vendor firm after formalities to release of deducted amount as per provisions of bid.
- 9.3 At any time or at the end of agreement cost of damaged items not got repaired as per norms and laps of services during warranty period reported as default will be deducted from performance security on risk and cost basis.
- 9.4 Acceptance of the proposal(s) will rest with the Managing Director, RREC, Jaipur who does not bind himself to accept the lowest offer and may reject any proposal without assigning any reasons thereof.
- 9.5 No foreign exchange will be provided by the RREC.
- 9.6 The rates quoted for supply of SPV systems must be firm and fixed, FOR site(s) as per prescribed format.



9.7 Payment Terms;

(A) The payment of subsidy/balance system cost for supply of SPV systems shall be released after receipt of funds under the programme from MNRE, GoI after submission of following documents duly verified by Project Manager/officer, RREC or by officer nominated from Head office of RREC:

- a) Bill/invoice issued to beneficiary by the Empanelled Vendor.
- b) Duly signed by beneficiary installation certificate (As per Annexure-10) with name, fathers name & full address of beneficiary with full details of material such as :
 - (a) Date of commissioning.
 - (b) Model
 - (c) Make
 - (d) Serial Nos. of PV modules and Balance of systems.
- c) Address proof of beneficiary like Aadhar Card, Voter Identification number and Electricity Bill etc.
- d) The Joint Inspection Report (Annexure-11) and Undertaking (Annexure-12).
- e) Two Photographs of beneficiary with installed system (with Date, Time and GPS coordinates), wherein place and date of commissioning is indicated (The Photograph must match with the photograph in the ID proof). As far as possible, photograph of installed system should be taken with person whose ID proof is being taken but in case at the time of taking Photograph the ID proof person is not available at his residence, his/her spouse photograph may be taken with installed system.
- f) Copy of Agreement with beneficiary for maintenance (Annexure-9).
{Two sets of documents (a) to (f) must be prepared & one copy be submitted to PM/PO & second copy to RREC HQ Jaipur along with bill of subsidy claim}.

(B) Procedure for verification of system for release of subsidy:

- (i) The approved vender having Rate Contract with RREC will arrange installation of system.
- (ii) The approved vender will charge and collect balance cost of the system after deducting subsidy payable by RREC from the beneficiary.
- (iii) After installation of system the vender will submit claim of subsidy with documents required under clause 9.7(A)(a to f) to concerned Project Manager/ Officer of RREC. RREC officer will verify the installed system as per conditions of the Rate Contract.
- (iv) RREC will release 80% of total payable capital subsidy to the Empanelled Vendor firm on completion of installation, commissioning of the system and verification of the system and documents duly verified by the PO/PM, RREC concerned.
- (v) Remaining 20% balance subsidy will be released in five equal parts (i.e 4%) annually on submission of satisfactory performance reports confirmed by beneficiary. In this



way, total subsidy will be paid on successful completion of FIVE years maintenance.

- (C) The Empanelled Vendor shall ensure timely attending to faults; it should be attended by the Empanelled Vendor within 3 days of lodging. **In case the Empanelled Vendor is failed to provide proper maintenance of the systems to the beneficiary within 3 days period from lodging, on further delay in attending and rectifying the fault penalty @Rs.20/- per day per kW will be charged by RREC. This penalty will be in addition to clause: 2.4 of Tender document.**

Empanelled Vendor will maintain a complaints & rectification diary in two copies, one copy will remain with Empanelled Vendor and other copy will remain with beneficiary. This will be verified by PM/PO & other RREC officers during visits and copy of the same will be provided by the vendor to RREC at the time of final payment claim.

- (D) An agreement in the format at Annexure-7 shall be entered into within scheduled timeline as described in work order/LOA with required SD under clause 9.2(ii).

(E) **Invoicing Pattern:**

The Empanelled Vendor will directly sell the system to beneficiary through an invoice in the name of beneficiary. The invoice can be of the empanelled vendor and will clearly mention the full value of the system and tax components with deduction of subsidy amount. Empanelled Vendor will submit beneficiary share & subsidy claims enclosing one copy of sale invoice and installation certificates etc as per clause no: 9.7 (a) of the tender document.

- 9.8 RREC may not authorise any bidder for the grid connected SPV Systems for which proposals have been invited or may authorise for less than the quantity communicated in the tender document or may not authorise for any quantity, the bidder(s) shall not be entitled to claim any compensation.

- 9.9 Proposals will be valid for a period of 6 months from the date of their opening for the purpose of communicating acceptance by the department. The proposals with validity of less than 6 months will not be considered. The validity can be further extended with mutual consent.

- 9.10 In the event of breach of any of the conditions of the contract at any time on the part of the Empanelled Vendor the contract may be terminated summarily by Managing Director, RREC, Jaipur without compensation to the contractor.

- 9.11 The price quoted for the systems must be including installation charges and comprehensive maintenance for 5 years charges as per maintenance and warranty clause 9.13 and shall remain fixed and firm during the period of contract.

- 9.12 (a) Complete literature and specifications of the material offered must accompany the tender.

(b) All type tests certificates as mentioned in the MNRE guidelines for Grid connected Roof top SPV scheme and amended time to time should be furnished.



9.13 Warranty Clause:-

- (i) The systems offered shall be warranted (including consumables) by the Empanelled Vendor for use and services for a period of five years from the date of commissioning and solar modules shall have warranty for minimum 10 years. Free replacement warranty on spare parts against manufacturing defects for five years.
- (ii) Comprehensive Maintenance Services for 5 years should be provided by the Empanelled Vendor. Quarterly Report for maintenance and Servicing as per Annexure-15 should be prepared and submitted to RREC after providing necessary services.

9.14 (i) The time specified for delivery and completion of work in the contract tender shall be deemed to be the essence of the contract and the successful Bidder/Empanelled Vendor (s) shall arrange to complete work within the period on receipt of order from RREC.

- (ii) If bidder does not comply to his proposed schedule RREC may reallocate the remaining work to any/all other interested firm, so as to achieve the targets and SD deposited will be forfeited in a manner as detailed below:

- a) In case vendor could not execute 50% of their allocated capacity full SD will be forfeited.
- b) In case the vendor has executed more than 50% of their allocated capacity than SD may be forfeited for the unexecuted capacity only.

9.15 If the successful bidder(s) fail to complete the work in the period specified in the authorisation letter / contract, the RREC may at its discretion to allow an extension in time of completion, subject to recovery from the Vendor an agreed liquidated damages a sum equal to the following percentage from the amount payable by RREC { i.e. the amount of LD shall be calculated on the total subsidy payment payable by RREC} for systems which the Vendor has failed to complete the balance work of supply, erection, installation, testing and commissioning for period of delay as stated below:-

- (a) Delay up to nine week period of the prescribed delivery period -2.5%.
- (b) Delay exceeding nine weeks period but not exceeding eighteen weeks period of the prescribed delivery period – 5%
- (c) Delay exceeding eighteen weeks period but not exceeding twenty seven weeks period of the prescribed delivery period – 7.5%
- (d) Delay exceeding twenty seven weeks period but not exceeding thirty six weeks period to the prescribed delivery period – 10%

1. Fraction of a day in reckoning the period of delay in supply shall be treated one full day.
2. The maximum amount of agreed liquidated damages shall be 10% of subsidy amount.
3. If the Empanelled Vendor requires an extension of time in completion of contractual supply on account of occurrence of any hindrance, he shall apply in writing to the



- purchasing authority for the same immediately on occurrence of the hindrance but not after the stipulated date of completion of supply.
4. Delivery period may be extended with or without liquidated damages if the delay in supply of goods is on account of hindrances beyond the control of the bidder.
- 9.16 (a) No price escalation on account of any statutory increase in or fresh imposition of customs duty, excise duty, sales tax or duty liveable in respect of the systems authorised to be installed, shall be applicable.
- (b) The benefit on account of decrease in taxes etc. shall be availed by the RREC if accrued during the stipulated / extended delivery period.**
- 9.17 The bidders are required to study carefully the conditions of the tender document, the enclosed specifications and the relevant provision of the relevant BIS/ISS/MNRE specifications wherever necessary before submitting the proposal. Technical particulars of the material offered must comply with the enclosed specifications and the relevant provisions of the BIS/ISS/MNRE as far as possible. In case tenders are called for 'ISI' marked stores, the material 'ISI' marked only shall be accepted.
- 9.18 Any changes in the constitution of the firm/company shall be notified forth with by the Empanelled Vendor in writing to the Corporation and such change shall not relieve the tenderer from any liability under the contract.
- 9.19 Bidder will have to submit GST registration certificate number and GST clearance certificate from the competent authority concerned along with the proposal without which proposals may not be considered provided that the purchasing authority has reason to believe (to be recorded in writing) that the bidder has not been able to submit clearance certificate of GST on bona-fide grounds, the authority may consider the tender asking the bidder to furnish the certificate later on but in any case before the execution of the agreement by the successful bidder.
- 9.20 The bidder shall sign on each page at the end in token of acceptance of all the terms and it would be attached /uploaded with the proposal along with the declaration. He should also sign at the bottom of each of the pages of his tender.
- 9.21 The authorisation for installing SPV system can be repudiated at any time by the RREC if the systems are not supplied and installed to its satisfaction. The reasons for repudiation shall be recorded by RREC. In case of non-performance in any form and shape of the terms & conditions of the agreement the MD, RREC, Jaipur has power to cancel the authorisation pertaining to the supply and installation of systems.
- 9.22 If a bidder imposes conditions, which are in addition to/or in contravention with the conditions mentioned herein, his tender is liable to be summarily rejected. In any case none of such conditions will be deemed to have been accepted unless specifically mentioned in the letter of authorisation issued by RREC.
- 9.23 If any question is raised or issue arises between the user (beneficiary) of the SPV Off-grid/grid connected SPV Systems and the Empanelled Vendor and matter is taken to a



consumer court, RREC shall not be responsible in any manner and shall not be made a party in it.

- 9.24 (i) To ensure the quality of the system, Pre-Dispatch Inspection of the material proposed to be used by Empanelled Vendor, Pre-Dispatch Inspection of the Material is mandatory condition. Pre-Dispatch inspection of material will be conducted by a Technical Officer of RREC or any other person authorized by RREC. The Empanelled Vendor will offer the material for inspection along with routine test certificates. Detailed instructions of Pre-despatch inspection of material done at point of source of material (i.e at works of the manufacturer) shall be made available to the Empanelled Vendor.

OR

Alternatively RREC, at its discretion, may select upto 1% samples on random basis out of a lot supplied at site before installation and get these tested at a MNRE recognised test house at Empanelled Vendor's cost. In case of installation of SPV Modules without following this testing procedure, no subsidy payment shall be considered for such project(s).

- (ii) The following facilities shall be provided by the Vendor at his own cost to the inspecting officer:

- (a) Suitable accommodation and local conveyance between arrival point, place of stay, works and departure point.
- (b) Vendor shall arrange 'To and Fro' air tickets of economy class for journey of inspecting officer from nearest airport of work place of inspecting officer to their works or place where inspection is to be carried out and back at vendor's cost after coordinating with inspecting officer. Suitable Transport facility for inspecting officer from his work place to the nearest airport for 'To and Fro' journey will also be arranged by the vendor.

In case, place of inspection is not connected through air, vendor will arrange 'To and Fro' air tickets of economy class at their cost upto the nearest airport of place of inspection and onward journey from nearest airport to place of inspection and back by suitable means i.e taxi/train(2nd AC Class) at the cost of vendor.

In case place of inspection is within 500 km distance from HQ of Inspecting Officer, vendor will make suitable travelling arrangement upto the destination of Inspection and back by taxi/train (2nd AC Class) at Vendor's Cost.

No deductions towards air fare / travel expenses will be made by the payment making authority, if inspection is waived by the competent authority.

- 9.25 After qualifying and deciding L-1 offer, if the successful bidder did not take up the work as per work order issued to the firm. RREC will forfeit the deposited amount of the successful bidder with RREC as per Clause No. 9.14 and take action for debarring and blacklisting of the firm.



- 9.26 If the rate contract holder quotes/reduces its price to tender similar goods, works or services at the price lower than the rate contract price to anyone in the state at any time during the currency of the rate contract, the rate contract price shall be automatically reduced with effect from the date of reducing or quoting lower price, for all delivery of the subject matter of procurement under that rate contract and the rate contract shall be amended accordingly. The firms holding parallel rate contracts shall also be given opportunity to reduce their price by notifying them the reduce price giving them fifteen days time to intimate their acceptance to the revised price. Similarly, if a parallel rate contract holding firm reduces its during currency of the rate contract, its reduced price shall be conveyed to other parallel rate contract holding firms and original rate contract holding firm for corresponding reduction in their prices. If any rate contract holding firm does not agree to the reduced price, further transaction with it, shall not be conducted.
- 9.27 Legal proceedings, if any, arising out of the tender contract shall have to be lodged in courts situated in Jaipur, Rajasthan only.
- 9.28 If any dispute arises out of the contract with regard to the interpretation / meaning and the breach of the terms of the contract, the matter shall be referred to by the parties to The Managing Director, RREC, Jaipur whose decision shall be final and binding.

I/We have carefully read and understood the above terms & conditions of the tender document and agree to abide by them.

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SECTION-10

MODE OF AWARD OF TARGETS

- 10.1 RREC intent to distribute the total work as per allocation to the respective Discom (Lot) by MNRE, New Delhi among following two categories of Bidders as under:

S. No.	Category of Bidders:	Work distribution		
		JVVNL	AVVNL	Jd.VVNL
		Lot-I	Lot-II	Lot-III
1	Established Entrepreneurs	75% of Total Allocated Capacity	75% of Total Allocated Capacity	75% of Total Allocated Capacity
2	Start-up:	25% of Total Allocated Capacity	25% of Total Allocated Capacity	25% of Total Allocated Capacity

- 10.2 Financial offers (Price bid) of all the technically qualified bidders will be opened and L-1 prices for each Discom (Lot) will be finalised separately and RREC take-up award of work as per procedure given below.

10.3 Start-up Firms :

- 10.3.1 The offers will be arranged in the ascending order on the basis of Weighted Sum of their quoted rates for Slab-A and Slab-B. The Weighted Sum of quoted rates of each Start-up Bidder will be calculated by multiplying their quoted rates (in Online Cover-III) with 'Factor for Evaluation' as per example given below :

Start-up Bidder No. 1

GCRT Plants without Battery Bank incl. 5 years CMC	Quoted Project cost of the bidder (Rs./Wp)	Factor for evaluation %	Cost for Evaluation in Rs./Wp
>1 kW & up to 3 kW	52.50	0.0859	4.5098
>3 kW & up to 10 kW	51.50	0.9141	47.0762
Weighted Sum (Rs./Wp)			51.586

- 10.3.2 All the Start-up bidders will be arranged in ascending order on the basis of Weighted sum calculated as per 10.3.1 above for each Discom (Lot) separately.
- 10.3.3 The Weighted Sum of lowest quoted Slab-wise rates of Discom/Lot will be calculated separately for each Discom (Lot) by multiplying the lowest quoted rates (in Online Cover-III) for respective Discom (Lot) (considering rates quoted by Established Entrepreneurs also) with 'Factor for Evaluation' as per example given below :



Bidders Name who has quoted Lowest Rate in that Slab for respective Discom (Lot)	GCRT Plants without Battery Bank incl. 5 years CMC	Total Project cost quoted by the bidder (Rs./Wp)	Factor for evaluation %	Cost for Evaluation in Rs./Wp
Bidder-A	>1 kW & up to 3 kW	50.00	0.0859	4.295
Bidder-B	>3 kW & up to 10 kW	49.50	0.9141	45.248
Weighted Sum of Lowest Rates (Rs./Wp)				49.543

10.3.4 The Start-up Firms, whose Weighted sum of quoted Rates are higher upto 20% than the Weighted Sum of Lowest Rates may only be considered for allocation of Capacities after matching Slab-wise Lowest Quoted rates for respective Discom(Lot).

10.4 Established Entrepreneurs:

10.4.1 The offers will be arranged in the ascending order on the basis of Weighted Sum of their quoted rates for Slab-A, Slab-B, Slab-C and Slab-D. The Weighted Sum of quoted rates of each Bidder will be calculated by multiplying their quoted rates (in Online Cover-III) with 'Factor for Evaluation' as per example given below :

Established Entrepreneurs No. 1

GCRT Plants without Battery Bank incl. 5 years CMC	Quoted Project cost of the bidder (Rs./Wp)	Factor for evaluation %	Cost for Evaluation in Rs./Wp
> 1 kW & up to 3 kW	52.00	0.0334	1.7368
> 3 kW & up to 10 kW	51.00	0.8858	45.1758
>10 kW & up to 50 kW	49.00	0.0746	3.6554
>50 kW & up to 500 kW	46.00	0.0062	0.2852
Weighted Sum (Rs./Wp)		1	50.8532

10.4.2 All the bidders under Established Category will be arranged in ascending order on the basis of Weighted sum calculated as per 10.4.1 above for each Discom (Lot) separately.

10.4.3 The Weighted Sum of lowest quoted rates of Discom/Lot will be calculated separately for each Discom (Lot) by multiplying the lowest quoted rates (in Online Cover-III) for respective Discom (Lot) (considering rates quoted by Start-up Firms for Slab-A & B also) with 'Factor for Evaluation' as per example given below :



Bidders Name who has quoted Lowest Rate in that Slab for respective Discom (Lot)	GCRT Plants without Battery Bank incl. 5 years CMC	Total Project cost quoted by the bidder (Rs./Wp)	Factor for evaluation %	Cost for Evaluation in Rs./Wp
Bidder-A	>1 kW & up to 3 kW	50.00	0.0334	1.67
Bidder-B	>3 kW & up to 10 kW	49.50	0.8858	43.8471
Bidder-C	>10 kW & up to 50 kW	48.00	0.0746	3.5808
Bidder-D	>50 kW & up to 500 kW	45.50	0.0062	0.2821
Weighted Sum of Lowest Rates (Rs./Wp)				49.38

10.4.4 The Bidders under Established Category, whose Weighted sum of quoted Rates are higher upto 20% than the Weighted Sum of Lowest Rates may only be considered for allocation of Capacities after matching Slab-wise Lowest Quoted rates for respective Discom(Lot).

10.5 All the eligible firms fulfilling the criteria as per Clause No. 10.3.4 and 10.4.4 will be offered to give their consent to match the lowest Slab-wise Rates discovered and allocation of work will be awarded accordingly, if the firm agrees to take up work on lowest offered rates. This process will be repeated for each Discom (Lot) separately.

10.6 The allocations will be awarded to the firms for quantities as under :

S. No.	Award of Work Quantity among firms	Allowed Working Slab
1.	First of all capacity upto 25% (approx.) of Allocated Capacity of the Discom/Lot will be awarded to "Start-Up firms" of the Respective Discom subject to maximum 200 kW to each bidder	Slab-A: 1 kW to 3 kW only Slab-B: Above 3 kW to 10 kW only
2.	Balance Capacity i.e. 75% (approx.) of Allocated Capacity of the Discom/Lot will be awarded to "Established Entrepreneurs" of the Respective Discom subject to maximum 500 kW to each bidder	Slab-A: 1 kW to 3 kW only Slab-B: Above 3 kW to 10 kW only Slab-C: Above 10 kW to 50 kW only Slab-D: Above 50 kW to 500 kW only

- (i) In case of availability of more than required vendors after matching L1 price under each category as mentioned in above, work will be allotted to those vendors whose Weighted sum of quoted prices were in ascending order from lowest quote.
- (ii) In case of non-availability of proposals in each category upto decided limit, balance allocation will be on discretion of MD, RREC.



- 10.7 The qualified bidders will have to submit their proposals along with DPRs in 4 months period from date of issue of LOA. In case, the firm(s) fails to submit the proposals as per awarded allocations. Action will be taken as per tender clause No: 2.6.3 and ultimately the surrendered/uncompleted quantity will be awarded to the other interested firms.
- 10.8 Further allocations of work quantity if arises from additional allocation from MNRE will be made on performance basis after reviewing the progress of the work already awarded to the firms and getting consent from the bidder.

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SECTION-11

WORKS CONTRACT

Works Contract Tax (WCT) is not applicable in this project. However, it should be clarified that RREC's role is limited to making payment of subsidy as received from MNRE towards cost of system & its installation as per the terms and conditions of tender & work order. Accordingly, it is of the view that this shall not attract provisions of work contract tax. However, if the revenue authorities are of the opinion that works contract tax is applicable to the above payments by RREC and insists to deduct the same from Empanelled Vendor's payment. RREC would deduct the same from Empanelled Vendor's due subsidy/other payments.

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SECTION-12

STEPS To TAKE UP THE WORK :

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

1.	The Successful Bidders selected shall be issued Letter of Allocation (LOA) indicating the allocated capacity. The successful bidder shall submit agreement with required formalities as per clause 9.2(ii) within 15 days, subsequently Rate Contract shall be issued to the successful bidders.
2.	The Empanelled Vendor will motivate the interested beneficiary eligible for subsidy as per MNRE Guidelines for installation of SPV Power Plant for captive consumption. For identification of projects, RREC may provide help such as publicity etc., However the entire responsibility of identification of buildings /beneficiaries lies with the Empanelled Vendor.
3.	The Firm's Engineer shall visit the site of beneficiary, prepare DPR of the project and submit along with following documents for Project sanction online to RREC Portal. User ID and password to every successful firm will be provided to submit these document to RREC: 1. Detailed Project Report, 2. Agreement between the empanelled vendor and the owner of Project (Notarised original agreement should be submitted) 3. No objection Certificate from the concerned DISCOM for grid connectivity. 4. ID Proof and passport size photograph of Consumer 5. Latest Electricity Bill
4.	RREC will examine the DPR and issue sanction of the specific project Online indicating value of subsidy admissible and project will be uploaded on SPIN of MNRE.
6	The Empanelled Vendor will collect balance amount of cost of project after deducting subsidy payable by RREC from beneficiary in the form of cheque/DD from beneficiaries.
7	The Empanelled Vendor shall offer the material as per project report to RREC for pre-despatch inspection.
8.	After material inspection by the inspector, Despatch clearance shall be issued by RREC and then Empanelled Vendor can despatch the material for site of beneficiary for further installation and commissioning of the project.
9.	The Empanelled Vendor shall complete the work of civil work, erection, testing & commissioning of Power Plant and submit claim of subsidy to concerned Project officer/ Project Manager, RREC for verification as per clause 9.7(A).
10.	The Empanelled Vendor will submit subsidy claim duly verified from PO/PM, RREC to Head office.
11	The Empanelled Vendor will provide maintenance services up to the period of FIVE years from date of commissioning of Power Plant.

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**SECTION-13****ANNEXURES**

S.No.	Annexure No:	Brief Details of Annexure	Page No:
1.	1	Brief details of the bidder.	45
2.	2	Technical Specifications for Grid Connected SPV Systems.	46
3.	3(A), (B) & (C)	Schedule of Experience and Details of After Sales Service Centres (Existing/Proposed)	60
4.	4	Price Schedule	62
5.	5	Deviation Statement	64
6.	6	Tender Form {Instructions to bidder to be signed by Authorised Signatory on behalf of the proposer}	65
7.	7	Format of Agreement with successful bidder.	67
8.	8	Format of Undertaking to be submitted by the bidder.	69
9.	9	Format for Agreement with beneficiary for maintenance of SPV Systems/Plant.	70
10.	10	Format of Installation certificate	72
	10 (A)	Joint Inspection Report	73
	10 (B)	Undertaking by Vendor	74
11.	11(A), 11(B), 11(C) & 11(D)	Instructions and formats to be filled / signed by bidder as per Transparency Act 2012.	75
12.	12	Format for Subsidy claim Note	81
13.	13	Declaration of material proposed for supply under this programme by the bidder :	83
14.	14	Format for Consortium Agreement.	84
15.	15	Quarterly Maintenance & Servicing Report	87
16.	16	Format For Certificate of Relationship of Parent Company or Affiliate with the Bidder	88
17.	17	Undertaking from the Financially Evaluated Entity or its Parent Company / Ultimate Parent Company	89
18.	18	MNRE Notification for CFA Amount and Eligibility dated 20.08.2019.	91
19.	19	RREC's Bank Account Details	104
20.	20	Areas Covered Under Various Discoms	105

**Annexure-1****Brief details of the bidder :**

The brief details of the bidder should be filled in by the bidder as under :

S.No.	Particulars required	Details		
1.	Name of Firm			
2	Office Address of Registered Office			
3	Category of the Bidder (Please indicate Yes/No)	Established	Start-up	
4	Offer submitted for Discom/Lot (Please indicate Yes/No)	JVVNL (Lot-I)	AVVNL (Lot-II)	Jd.VVNL (Lot-I)
5	Registration Number :			
6	Date of Registration :			
7	Registered Address with Tel. Number			
8	Legal Status /Type of Company Attach Proof of Company Registration along with a copy of the Partnership Deed/ Article of Association and Memorandum	Proprietorship/ Partnership/ Private Limited/ Public Limited/LLP (Please tick appropriately and submit the documentary proof)		
9	Address of Manufacturing unit with Tel. Number			
10	Details of Product(s) being manufactured at their own:			
11	Name of Directors of Company (at least Two directors with DIN No., email IDs & contact Numbers)	(1) (2)		
12	GSTIN Number: PAN Number:			
13	Year from which firm is in business in Renewable Energy Technology			
14	Major Area (Name of States) of working remained till date			
15	Technical Officers/Engineers and other officers/officials are working in the company	(1)Technical Persons (Nos.)....., (2)Other officers/officials (Nos.....,		
16	Branch offices/Dealers network is available in Rajasthan or not			
17	The person(s) authorised by the company for work of Roof Top SPV Power Plants in Rajasthan			

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Annexure-2

TECHNICAL SPECIFICATIONS FOR GRID CONNECTED SPV SYSTEMS

The proposed projects shall be commissioned as per the technical specifications given below. Any shortcomings will lead to cancelation of subsidy in full or part as decided by RREC.

1. DEFINITION

A Grid Tied 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. 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 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.

Solar PV system shall consist of following equipments/components.

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

a. SOLAR PHOTOVOLTAIC MODULES:

1.1.1 The PV modules used should be made in India using only domestic manufactured Solar cells as per MNRE requirement. The empanelled Vendor shall require to submit the self declaration regarding SPV Modules and Solar Cells used under the Scheme are 'Made in India' from the manufacturer of SPV Modules, supplied under the Scheme before commissioning of the System.

1.1.2 The PV modules used must qualify to the latest edition of IEC PV module qualification test or equivalent BIS standards Crystalline Silicon Solar Cell Modules IEC 61215/IS14286. In addition, the modules must conform to IEC61730 Part-2-requirements for construction & Part 2 – requirements for testing, for safety qualification or equivalent IS.

a) For the PV modules to be used in a highly corrosive atmosphere through out their lifetime, they must qualify to IEC 61701.

b) The total solar PV array capacity should not be less than allocated capacity (kWp) and should comprise of solar crystalline modules of minimum **300Wp** and above wattage. Module capacity less than minimum **300** watts peak should not be accepted

c) Protective devices against surges at the PV module shall be provided. Low voltage drop bypass diodes shall be provided.



- d) PV modules must be tested and approved by one of the IEC authorized test centers.
- e) The module frame shall be made of corrosion resistant materials, preferably having anodized aluminum.
- f) The bidder shall carefully design & accommodate requisite numbers of the modules to achieve the rated power in his bid. **RREC** shall allow only minor changes at the time of execution.
- g) Other general requirement for the PV modules and subsystems shall be the following:

- I. The rated output power of any supplied module shall have tolerance of ± 5 W.
- II. 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.
- III. 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.
- IV. I-V curves at STC should be provided by bidder.

- h) Plants installed must have the solar modules tested with relevant dust standards (Applicable standard would be IEC 60068-2-68).

1.1.3 Modules deployed must use a RF identification tag. The following information must be mentioned in the RFID used on each modules (This should be inside the laminate only and 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

1.1.4 Warranties:

a) Material Warranty:

- i. Material Warranty is defined as: The manufacturer should warrant the Solar Module(s) to be free from the defects and/or failures specified below for a period not less than five (05) years from the date of sale to the original customer ("Customer").
- ii. Defects and/or failures due to manufacturing
- iii. Defects and/or failures due to quality of materials



iv. Non conformity to specifications due to faulty manufacturing and/or inspection processes. If the solar Module(s) fails to conform to this warranty, the manufacturer will repair or replace the solar module(s), at the Owners sole option.

b) Performance Warranty:

i. The predicted electrical degradation of power generated not exceeding 20% of the minimum rated power over the 25 year period and not more than 10% after ten years period of the full rated original output.

2. ARRAY STRUCTURE

a) Hot dip galvanized MS 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 insolation. 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 in Rajasthan. 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 RREC. Suitable fastening arrangement such as grouting and calming should be provided to secure the installation against the specific wind speed.

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. 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.

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

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 **60kg/m²**.

h) The minimum clearance of the structure from the roof level should be **300 mm**.

3. 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 GRP/FRP/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.

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. Single /double compression cable glands. Provision of earthings. It should be placed at **5 feet** height or above for ease of accessibility.



- 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 foreach of the groups.
- d) 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.
- e) All fuses shall have DIN rail mountable fuse holders and shall be housed in thermoplastic IP 65 enclosures with transparent covers.

4. DC DISTRIBUTION BOARD:

- a) DC Distribution panel to receive the DC output from the array field.
- b) 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.

5. AC DISTRIBUTION PANEL BOARD:

- a) 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.
 - b) All switches and the circuit breakers, connectors should conform to IEC60947, part I, II and III/ IS60947 part I, II and III.
 - c) The changeover switches, cabling work should be undertaken by the bidder as part of the project.
 - d) 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, 50 Hz
 - e) The panels shall be designed for minimum expected ambient temperature of 45 degree Celsius, 80 percent humidity and dusty weather.
 - f) All indoor panels will have protection of IP54 or better. All outdoor panels will have protection of IP65 or better.
 - g) Should conform to Indian Electricity Act and rules (till last amendment).
 - h) 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 | : | +/- 5 Hz |

6. PCU/ARRAY SIZE RATIO:

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

7. PCU/ Inverter:



As SPV array produce direct current electricity, it is necessary to convert this direct current into alternating current and adjust the voltage levels to match the grid voltage. Conversion shall be achieved using an electronic Inverter and the associated control and protection devices. All these components of the system are termed the “Power Conditioning Unit (PCU)”. In addition, the PCU shall also house 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(In case single phase inverters are offered, suitable arrangement for balancing the phases must be made.)
- Output frequency : 50 Hz
- Grid Frequency Synchronization range : +/-5 Hz
- Ambient temperature considered : -20o C to 50o C
- Humidity : 95 % Non-condensing
- Protection of Enclosure : IP-20(Minimum) for indoor.
: IP-65(Minimum) for outdoor.
- Grid Frequency Tolerance range : +/-5 Hz
- Grid Voltage tolerance : - 20% & + 15 %
- No-load losses : Less than 1% of rated power
- Inverter efficiency(Min.): >93% (In case of 10kW or above with in-built galvanic isolation)
>97% (In case of 10 kW or above without inbuilt galvanic isolation)
- Inverter efficiency (minimum): > 90% (In case of less than 10 kW)
- THD: < 3%
- PF : > 0.9

a) Three phase PCU/ inverter shall be used with each power plant system(10kW and/or above) but In case of less than 10kW single phase inverter can be used.

b) PCU/inverter shall be capable of complete automatic operation including wake-up, synchronization & shutdown.

c) 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.

d) Built-in meter and data logger to monitor plant performance through external computer shall be provided.

e) Anti-islanding (Protection against Islanding of grid): The PCU shall have anti islanding protection in conformity to IEEE 1547/UL 1741/ IEC 62116 or equivalent BIS standard.

f) Successful Bidders shall be responsible for limiting dc injection into the grid and load as per the CEA/state regulations.

g) The PCU/ inverter generated harmonics, flicker, DC injection limits, Voltage Range, Frequency Range and Anti-Islanding measures at the point of connection to the utility



services should follow the latest CEA (Technical Standards for Connectivity Distribution Generation Resources) Guidelines.

h) 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.

i) 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.

j) The PCU/ inverters should be tested from the MNRE approved test centres /NABL /BIS /IEC accredited testing- calibration laboratories. In case of imported power conditioning units, these should be approved by international test houses.

8. 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. Once the DG set comes into service PV system shall again be synchronized with DG supply and load requirement would be met to the extent of availability of power. 4 pole isolation of inverter output with respect to the grid/ DG power connection need to be provided.

9. DATA ACQUISITION SYSTEM / PLANT MONITORING

i. Data Acquisition System shall be provided for each of the solar PV plant.

ii. Data Logging Provision for plant control and monitoring, time and date stamped system data logs for analysis with the high quality, suitable PC. Metering and Instrumentation for display of systems parameters and status indication to be provided.

iii. 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 **[This will be provided with SPV Power Plants of PV capacity more than 50kW].**

iv. Temperature: Temperature probes for recording the Solar panel temperature and/or ambient temperature to be provided complete with read out integrated with the data logging system [This will be provided with SPV Power Plants of PV capacity more than 50 kW].

v. The following parameters are accessible via the operating interface display in real time 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. Power produced



- k. Protective function limits (Viz-AC Over voltage, AC Under voltage, Over frequency, Under frequency ground fault, PV starting voltage, PV stopping voltage.
- vi. 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 a month and the average values) should be made available for energy auditing through the internal microprocessor and should be read on the digital front panel.
- vii. Solar Meter: Energy Meters to log the actual value of Energy generated by the PV system be provided. Energy meter if required with CT/PT should be of 0.5 accuracy class/as per Discoms guidelines.
- viii. Computerized DC Array monitoring and AC output monitoring shall be provided as part of the inverter and/or string/array combiner box or separately.
- ix. Array DC Voltage, Current and Power, Inverter AC Output Voltage and Current (all three phases and lines), AC Power (Active, Reactive and Apparent), Power Factor and AC Energy (All three Phases and Cumulative) and Frequency shall be monitored.
- x. Computerized AC energy monitoring shall be in addition to the digital AC Energy Meter.
- xi. 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.
- xii. All instantaneous data shall be shown on the computer screen.
- xiii. Software shall be provided for USB download and analysis of DC and AC parametric data for individual plant.
- xiv. Provision for instantaneous Internet monitoring and download of data shall be also incorporated.
- xv. Remote Server and Software for centralized Internet monitoring system shall be also provided for download and analysis of cumulative data of all the plants. The data of the solar radiation and temperature monitoring system should also be available on Remote Monitoring server **[This will be provided with SPV Power Plants of PV capacity more than 50kW]**.
- xvi. Ambient / Solar PV module back surface temperature shall be also monitored on continuous basis **[This will be provided with SPV Power Plants of PV capacity more than 50kW]**.
- xvii. Simultaneous monitoring of DC and AC electrical voltage, current, power, energy and other data of the plant for correlation with solar and environment data shall be provided **[This will be provided with SPV Power Plants of PV capacity more than 50kW]**.
- xviii. Remote Monitoring and data acquisition through Remote Monitoring System software at the owner /RREC 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 Empanelled Vendor. Provision for interfacing these data on RREC server and portal in future shall be kept.

10. TRANSFORMER “IF REQUIRED” & METERING:

- a) Dry/oil type relevant kVA, 11kV/415V, 50 Hz Step up along with all protections, switchgears, Vacuum circuit breakers, cables etc. along with required civil work. **(If the**



transformer is required, the cost of the same will be borne by beneficiary and will not be the part of project cost).

b) The bi-directional electronic energy meter (0.5 S class) shall be installed for the measurement of import/Export of energy.

c) 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 RREC before commissioning of SPV plant.

d) Reverse power relay shall be provided by bidder (if necessary), as per the local DISCOM requirement.

11. **POWER CONSUMPTION:**

a) Regarding the generated power consumption, priority need to give for internal consumption first and thereafter any excess power can be exported to grid. Finalization of tariff is not under the purview of RREC. Decisions of appropriate authority like DISCOM, RERC may be followed.

12. **PROTECTIONS**

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

12.1. **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 overvoltage 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. Lightning protection should be provided as per NFC17-102:2011 standard. The protection against induced high-voltages shall be provided by the use of metal oxide varistors (MOVs) and suitable earthing such that induced transients find an alternate route to earth.

12.2. **SURGE PROTECTION**

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

12.3. **EARTHING PROTECTION**

i. 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 Department/RREC as and when required after earthing by calibrated earth tester. PCU, ACDB and DCDB should also be earthed properly.

ii. Earth resistance shall not be more than 5 ohms. It shall be ensured that all the earthing points are bonded together to make them at the same potential.

12.4. **GRID ISLANDING:**



i. 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.

ii. 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.

13. CABLES

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

i. Shall meet IEC 60227/IS 694, IEC 60502/IS1554 standards

ii. Temp. Range: –10oC to +80oC.

iii. Voltage rating 660/1000V

iv. Excellent resistance to heat, cold, water, oil, abrasion, UV radiation

v. Flexible

vi. 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 (2%).

vii. 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.

viii. For the AC cabling, PVC or, XLPE insulated and PVC sheathed single or, multi-core multi-stranded flexible copper/Aluminium cables shall be used; Outdoor AC cables shall have a UV-stabilized outer sheath.

ix. 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.

x. 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.

xi. Cables and wires used for the interconnection of solar PV modules shall be provided with solar PV connectors (MC4) and couplers

xii. 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 or half to the size of the phase wires.

xiii. 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.

xiv. Cable Jacket should also be electron beam cross-linked XLPO, flame retardant, UV



resistant and black in colour.

xv. 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 1.1kVas per relevant standards only.

xvi. The ratings given are approximate. Bidder to indicate 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.

xvii. 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.

xviii. The total voltage drop on the cable segments from the solar PV modules to the solar grid inverter shall not exceed 2.0%.

xix. The total voltage drop on the cable segments from the solar grid inverter to the building distribution board shall not exceed 2.0%.

14. **CONNECTIVITY**

The maximum capacity for interconnection with the grid at a specific voltage level shall be as specified in the RERC regulation for Grid connectivity and norms of DISCOM and amended from time to time.

i. The maximum permissible capacity for rooftop shall be 1 MW for a single net metering point.

ii. Utilities may have voltage levels other than above, DISCOMS may be consulted before finalization of the voltage level and specification be made accordingly.

iii. For large PV system (Above 100 kW) for commercial installation having large load, the solar power can be generated at low voltage levels and stepped up to 11 kV level through the step up transformer. If the transformer is required, the cost of the same will be borne by beneficiary separately and will not be the part of project cost.

15. **TOOLS & TACKLES AND SPARES:**

i. After completion of installation & commissioning of the power plant, necessary tools & tackles are to be provided free of cost by the bidder for maintenance purpose. List of tools and tackles to be supplied by the bidder for approval of specifications and make from RREC.

ii. 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 or can be maintained at Empanelled Vendor end. A minimum set of spares shall be maintained in the plant itself or can be maintained at Empanelled Vendor end



for the entire period of warranty and Operation & Maintenance which upon its use shall be replenished

16. 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 RREC.

17. 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
- c) The installation of Fire Extinguishers should confirm 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.

18. DRAWINGS & MANUALS:

- i. Two sets of Engineering, electrical drawings and Installation and O&M manuals are to be supplied to beneficiaries. Bidders shall provide complete technical datasheets 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.
- ii. Approved ISI and reputed makes for equipment be used.

19. PLANNING AND DESIGNING:

- i. The bidder should carry out 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 RREC for approval.
- ii. RREC 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.
- iii. The bidder shall submit preliminary drawing for approval & based on any modification or recommendation, if any. The bidder submit three sets and soft copy in CD of final drawing for formal approval to proceed with construction work.

20. DRAWINGS TO BE FURNISHED BY BIDDER AFTER AWARD OF CONTRACT

The Contractor shall furnish the following drawings /documents with each Power Plant.

- i. O&M Manual/ User Manual
- 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.
- v. Itemized bill of material for complete SV plant covering all the components and associated accessories.
- vi. Layout of solar Power Array
- vii. Shadow analysis of the roof

21. SOLAR PV SYSTEM ON THE ROOFTOP FOR MEETING THE ANNUALENERGY REQUIREMENT

The Solar PV system on the rooftop of the selected buildings will be installed for PV capacity permissible by Discom as per regulation issued by RERC.

22. 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.

Note: The Technical Standards for Grid Connected SPV Rooftop Plants are revised/updated time to time by Ministry of New and Renewable Energy, New Delhi, the same will also be applicable on issuance of revised / updated standards by MNRE.

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

Quality certification and standards for Grid-Connected Rooftop Solar PV Systems are essential for the successful mass-scale implementation of this technology. It is also imperative to put in place an efficient and rigorous monitoring mechanism, adherence to these standards. 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 Terrestrial Photovoltaic (PV) Modules
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 (NH ₃) Corrosion Testing(As per the site condition like dairies, toilets)
IEC 61730-1,2	Photovoltaic (PV) Module Safety Qualification – Part 1: Requirements 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 requirements 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 Measuring Efficiency (10%, 25%, 50%, 75% & 90-100% Loading Conditions)
IEC 62116/ UL 1741/IEEE 1547 (as applicable)	Utility-interconnected Photovoltaic Inverters - Test Procedure of Islanding 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 Inverters
Fuses	
IS/IEC 60947 (Part 1, & 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	
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: Requirements for connection components



	IEC 62561-2 Lightning protection system components (LPSC) - Part 2: Requirements for conductors and earth electrodes IEC 62561-7 Lightning protection system components (LPSC) - Part 7: Requirements for earthing enhancing compounds
Junction Boxes	
IEC 60529	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)
Solar PV Roof Mounting Structure	
IS 2062/IS 4759	Material for the structure mounting

Note- Equivalent standards may be used for different system components of the plants.

**Annexure-3(A)**

**A. SCHEDULE OF EXPERIENCE (Supply & Installation)
(Refer Section-6)**

(Please attach certificates in support from the concerned nodal agency /Govt. Organisation/ MNRE authorised Agency /Project owner for work executed)

S. No.	Details of SPV systems installed during 2017-18, 2018-19 and till date of submission of Bid	Year	Deptt./Agency /Beneficiary for which work carried out	Total kW size of work.	Cost of works in {Amt in Lakhs}	Attachment at Page No. Of Techno-Commercial bid
1.						
2.						
3.						
4.						
.....N						
TOTAL :						

{Please refer Section-6 : Prerequisite, to be eligible in this tender}

SIGNATURE & SEAL OF PROPOSER

**Annexure-3(B) & 3 (C)****DETAILS OF AFTER SALE SERVICE CENTRES (EXISTING/PROPOSED)****B. Details of after sale service centres existing in the state of Rajasthan**

S. No.	Name of Dealer/centre	Village	Tehsil	District	Name of contact Person & Phone Number

SIGNATURE & SEAL OF TENDERER**C. Details of after sale service centres proposed in the state of Rajasthan.**

S.No.	Name of Dealer/centre	Village	Tehsil	District

Note: This is for information purpose only, final details of After Sales Service Centres can be given later on.

SIGNATURE & SEAL OF TENDERER

**Annexure-4****PRICE BID****(Refer Section-5: To be filled online in .xls format only)**

Bidder shall quote rates / costs in the format given below for Design, supply, erection/ installation, commissioning & maintenance of grid connected SPV Power Plants as per guidelines and specifications/standards specified in MNRE grid connected guidelines (Annexure-18) and amended time to time complete with all accessories, auxiliaries and components F.O.R. site including installation, commissioning and Five Years comprehensive maintenance.

NIT No: RREC/SPV Roof Top Prg./2019-20, Dated :25.10.2019.

Slab	Description of Systems Grid connected SPV Power Plants without Battery Bank including FIVE years free comprehensive maintenance	Total Project cost including all taxes & duties etc. (Rs./Wp)
1	Jaipur Discom/Lot-I	
A.	Above 1 kW & up to 3 kW.	
B.	Above 3 kW & up to 10 kW.	
C.	Above 10 kW & up to 50 kW.	
D.	Above 50 kW & up to 500 kW.	
2	Ajmer Discom/Lot-II	
A.	Above 1 kW & up to 3 kW.	
B.	Above 3 kW & up to 10 kW.	
C.	Above 10 kW & up to 50 kW.	
D.	Above 50 kW & up to 500 kW.	
3	Jodhpur Discom/Lot-III	
A.	Above 1 kW & up to 3 kW.	
B.	Above 3 kW & up to 10 kW.	
C.	Above 10 kW & up to 50 kW.	
D.	Above 50 kW & up to 500 kW.	

**Signature of the Tenderer/
Authorised Signatory**

Note:

- (i) This information should be filled on-line on e-procurement site in Cover-III (.xls format) only as per procedure. If Project Cost is submitted in Cover-I and/or Cover-II (Technical Bid) by any Bidder, their offer will be summarily rejected.



- (ii) *Bidders may quote for more than one Discom/Lot. In case, they are submitting their offer for more than one Discom/Lot, they have to submit the required Earnest Money Deposit for each Discom/Lot separately.*
- (iii) *It will be mandatory for Bidders under Established Category to quote their prices for all the four Slabs (A,B,C & D) for Discom(s)/Lot(s) of their choice.*
- (iv) *The Start-up firms are eligible to execute the Projects upto 10 kW capacity only, therefore, Start-up firms are advised to submit their price bid for Slab-A and Slab-B only. If such firms submit their offers for Slab-C and Slab-D, such offers will not be considered for Evaluation.*

**Annexure-5****DEVIATION STATEMENT**

Details of Deviations from the Tender are as under:-

S.No.	Page No. of Documents	Clause No.	Details of deviations

Note: RREC is at liberty to accept or not to accept any deviation. No tender will be accepted with deviation without prior approval from competent authority of RREC.

SIGNATURE OF AUTHORISED
SIGNATORY WITH SEAL

**Annexure- 6****RAJASTHAN RENEWABLE ENERGY CORPORATION LTD.**

E-166, Yudhishtir Marg, C-Scheme, Jaipur.

TENDER FORM

- 1 Subject Tender for Design, Supply, Installation, testing, Commissioning and Maintenance for 5 Years of grid connected SPV Power Plants in the State of Rajasthan under “**Rooftop Solar Power Generation Scheme**” of RREC for 2019-20 on behalf of Rajasthan Discoms.
- 2 Name and full postal address, Contact Number and Email of the firm submitting the proposal
- 3 To be Addressed to
**Managing Director,
Rajasthan Renewable Energy Corporation
Limited,
E-166, Yudhishtir Marg, C-Scheme, Jaipur.**
- 4 Reference (NIT No): **NIT No: RREC/SPV Rooftop Prg./2019-20
Dated: 25.10.2019**
5. The fee as per tender has been submitted/deposited as under :

S.No.	Details	Amount	CR No./DD No.
1.	Cost of Tender: in favour of Managing Director, RREC payable at Jaipur.	Rs.5,000/- plus GST@18% i.e. Rs. 5,900/-	
2.	e-proc Charges: in favour of Managing Director, RISL, payable at Jaipur.	Rs.1,000/-	
3.	EMD in favour of Managing Director, RREC, payable at Jaipur;	Rs. 5.40 Lacs/ Rs. 2.16Lacs	

Note : Bidders may quote for more than one Discom/Lot. In case, they are submitting their offer for more than one Discom/Lot, they have to submit the required Earnest Money Deposit as above for each Discom/Lot separately.

6. We hereby submit our offer under Category [**Established Entrepreneurs/ Start-up Firms**] for the
[JVNL(Lot-I) / AVVNL(Lot-II) / Jd.VVNL(Lot-III)]



7. We agree to abide by all the conditions as mentioned in Tender notice No..... Dated issued by the Managing Director, RREC, Jaipur and (all the pages of which have been signed by us in token of acceptance of the terms mentioned therein).
8. The Costs/Rates for the supply of material installation, commissioning & maintenance thereof are given in the schedule of prices attached herewith.
9. Material will be delivered within delivery period / schedule.
10. The offer is valid for a period of 180 days from the date of opening of technical bids.
11. We also agree to abide by and fulfil all the terms, conditions and provisions of the above mentioned offer document.

SIGNATURE OF TENDERER
WITH SEAL.



Annexure- 7

AGREEMENT

(On Non judicial stamp paper of Rs 500/-)

1. An agreement made this day of Between (hereinafter called the “successful bidder”) which expression shall, where the context so admits, be deemed to include his/ hers successors, executors and administrators, of the one part the and the RREC (hereinafter called “the corporation”) which expression shall, where the context so admits, be deemed to include his successors in office and assigns) of the other part.
2. Whereas the successful bidder M/s.has agreed with the Corporation to take up the work under Rate Contract Order No..... dated..... and Award of Work Order No..... dated for supply, install, commission and maintenance of Grid Connected SPV Power Plants under “ Rooftop Solar Power Generation Scheme 2019-20” at the beneficiary’s site in the State of Rajasthan in the allowed area. All those articles set forth as per tender document & the Rate contract issued by RREC at the rates set forth in the said schedule.
3. And whereas the successful bidder has deposited as Security Deposit a sum of Rs. as Bank Draft/Banker Cheque/Bank Guarantee No. DatedWith adjustment of Rs. deposited vide DD/BCNo.Dated :..... as EMD/Bid Security.
4. (i)In consideration of the payment to be made by the Corporation through at the rates set forth in the Schedule hereto appended the successful bidders will duly supply install and provide other ancillary services related to the said articles set forth in And thereof in the manner set forth in the conditions of the tender and contract.
(ii) The conditions of the tender and contract for open tender enclosed to the tender notice No. dated and also appended to this agreement will be deemed to be taken as part of this agreement and are binding on the parties executing this agreement.
(iii)Letters Nos. received from tenderer and letters Nos. issued by the corporation and appended to this agreement shall also form part of this agreement.
5. We are abide by all terms and conditions as per bid documents.
6. All disputes arising out of this agreement and all questions relating to the interpretation of this agreement shall be decided by the Corporation and the decision of the Corporation shall be final.

In witness whereof the parties hereto set their hands on the day of



Signature for and as behalf of
RREC

Signature of the successful
Bidder.

Date:

Date:

Witness No. 1
Witness No. 2

1. Witness
2. Witness



Annexure- 8

**UNDERTAKING TO BE SUBMITTED BY A FIRM FOR FAITHFULLY CARRYING
OUT THE ASSIGNED WORK**

In consideration of the MD, RREC, E-166, Yudhishtir Marg, C-Scheme, Jaipur (hereinafter called RREC) having authorised us (name of the bidder), office at (hereinafter called the bidder) for installation work of grid connected SPV systems/Plants in Rajasthan and on successful completion of the job (hereinafter referred as grid connected SPV Roof Top Programme RREC having been agreed to disburse the financial assistance due under the programme Empanelled Vendor does hereby undertake to carry out the work as per terms and condition of the Tender document and authorisation letter issued to us by RREC.

We do hereby further undertake that in case we are unable to carryout out duties as undertaken above. RREC would have the right to forfeit the entire /EMD/security amount deposited by us for Grid Connected Rooftop SPV Programme work with them.

We at (Name of the firm) further agree that the undertaking herein contained shall remain in full force and effect for the period of the year from the date of this undertaking or for such period for which this undertaking is executed.

Dated this day of

Signature of the constituted
Attorney of M/s.



Annexure-9

अनुबन्ध पत्र

(राशि रु.500/- के नॉन ज्यूडिशियल स्टाम्प पर)

(राजस्थान अक्षय ऊर्जा निगम के 'रूफटॉप पावर जनरेशन स्कीम' के अन्तर्गत एस.पी.वी. ग्रिड कनेक्टेड पावर प्लान्ट हेतु सप्लायर व लाभान्वित के मध्य स्थापना व संधारण के लिए किये जाने वाला अनुबन्ध पत्र)

आज दिनांकको मै0.....(अधिकृत सप्लायर) व
..... (लाभार्थी) पताजिला.....
के मध्य एस.पी.वी. ग्रिड कनेक्टेड पावर प्लान्ट के क्रय एवं संधारण हेतु यह अनुबन्ध क्रय निष्पादित किया गया है। इस अनुबन्ध की सभी निम्नलिखित शर्तों से अधिकृत सप्लायर व लाभार्थी पाबन्द रहेंगे।

1. यह कि यह उपकरण/ पावर प्लान्ट राजस्थान अक्षय ऊर्जा निगम द्वारा प्रायोजित रूफ टाप पावर जनरेशन स्कीम 2019-20 के तहत लगाया जा रहा है।
2. यह कि लाभार्थी द्वारा अपनी आवश्यकता के अनुरूपकिलो वाट क्षमता का एस.पी.वी. ग्रिड कनेक्टेड पावर प्लान्ट लगाया जाना प्रस्तावित किया गया है/सहमति दी गई है।
3. यह कि राजस्थान अक्षय ऊर्जा निगम द्वारा जारी किये गये रेट कान्ट्रेक्ट द्वारा निर्धारित दरो के अनुसार इस पावर प्लान्ट की कुल लागत रुपये है। यह तथ्य सप्लायर द्वारा लाभार्थी को भली-भांति अवगत/समझा दिया गया है।
4. यह कि लाभार्थी को यह अवगत करवा दिया गया है कि राजस्थान अक्षय ऊर्जा निगम की रूफ टाप पावर जनरेशन स्कीम 2019-20 के तहत कुल 40 प्रतिशत (3 किलोवाट तक)/20 प्रतिशत (3 किलोवाट से अधिक एवं 10 किलोवाट तक) राशि अनुदान स्वरूप निगम द्वारा उपलब्ध करवायी जावेगी।

यह कि इस पावर प्लान्ट की स्थापना हेतु विभिन्न पक्षों के दायित्व एवं शर्तें निम्न प्रकार रहेगी :

लाभार्थी के दायित्व:-

5. यह कि अधिकृत सप्लायर को वांछित छाया रहित क्षेत्र सोलर मोड्यूल स्थापना हेतु उपलब्ध करवायेगा।
6. यह कि इस पावर प्लान्ट की स्थापना हेतु लाभार्थी उपकरण लागत का 60 प्रतिशत (3 किलोवाट तक)/80 प्रतिशत (3 किलोवाट से अधिक एवं 10 किलोवाट तक) राशि अधिकृत सप्लायर को भुगतान स्वरूप देने के लिये सहमत है। इसके अनुसार उपकरण की कुल लागत रुपये..... है जिसमे से रुपये का भुगतानलाभार्थी द्वारा अधिकृत सप्लायर को किया जाना है।
7. यह कि यदि लाभार्थी उपकरण स्थापना के साथ ही अधिकृत सप्लायर द्वारा उपयोग हेतु दिये गये निर्देशों के अनुसार ही पावर प्लान्ट का उपयोग करेगा। दिये गये निर्देशों के विपरित किसी प्रकार की अवांछित छेड़-छाड़ जैसे स्थानान्तरण करना, के सिद्ध होने पर, उपकरण की पाँच वर्ष की गारन्टी स्वतः ही समाप्त मानी जाएगी।
8. यह कि लाभार्थी सिस्टम खराब होने पर अधिकृत सप्लायर के कर्मचारियों को सूचित करेंगे न कि स्वयं सिस्टम को ठीक करने का प्रयास करेंगे।
9. यह कि अधिकृत सप्लायर द्वारा रख-रखाव न करने पर परियोजना अधिकारी, राजस्थान अक्षय ऊर्जा निगम को तत्काल सूचित करेंगे।
10. यह कि लाभार्थी लगाये गये उपकरण की सुरक्षा के लिए पूर्णतया जिम्मेदार होगा व चोरी होने पर पुलिस में तत्काल एफआईआर दर्ज करा के सम्बन्धित परियोजना अधिकारी को सूचित करेगा।



11. यह कि लाभार्थी सप्लायर द्वारा स्थापित रिमोट मोनिटरिंग प्रणाली को चालू रखने हेतु समय-समय पर डेटा पैक रिचार्ज सुनिश्चित करेगा।

अधिकृत सप्लायर के दायित्व:-

12. यह कि अधिकृत सप्लायर लाभार्थी को उसकी वर्तमान विद्युत आवश्यकता/लोड का अधिकतम 80 प्रतिशत क्षमता का सोलर पावर प्लान्ट स्थापना हेतु सुझाव देगा एवं उसके अनुसार ही पावर प्लान्ट की डीपीआर तैयार कर राजस्थान अक्षय ऊर्जा निगम का स्वीकृति हेतु प्रस्तुत करेगा।
13. यह कि अधिकृत सप्लायर, लाभार्थी से उपकरण लागत की की 60 प्रतिशत (3 किलोवॉट तक)/80 प्रतिशत (3 किलोवॉट से अधिक एवं 10 किलोवॉट तक) राशि चैक/बैंकर चेक/डीमान्ड ड्राफ्ट के रूप में **self** एकत्रित करेगा।
14. यह कि अधिकृत सप्लायर लाभार्थी के स्थल पर निगम से रेट कान्ट्रैक्ट एवं निविदा शर्तों के अनुरूप पावर प्लान्ट स्थापना का कार्य पूर्ण करेगा।
15. यह कि अधिकृत सप्लायर एस.पी.वी. ग्रिड कनेक्टेड पावर प्लान्ट की रिमोट मोनिटरिंग प्रणाली के लिए आवश्यक हार्डवेयर उपलब्ध कराएगा।
16. यह कि (i) राजस्थान अक्षय ऊर्जा निगम शर्तानुसार उपकरण स्थापना पश्चात् लाभार्थी को संभालने (Handing Over) के दिन उपकरण पूर्णतया कार्यशील होगा व कोई हिस्सा टूटा-फूटा या बेकार नहीं होगा।
(ii) अधिकृत सप्लायर लाभार्थी को देवनागरी लिपि/अंग्रेजी भाषा में सिस्टम की पूर्ण जानकारी एवं क्या करें क्या ना करें तथा संचालन मैन्युअल उपलब्ध करवाएंगे।
17. यह कि इस उपकरणमें वो सब सुविधायें/पार्ट्स होंगे जो कार्यादेश के संबंधित संलग्नक में दिये गये हैं।
18. यह कि राजस्थान विद्युत नियामक आयोग द्वारा 26.02.2015 को जारी नेट मीटरिंग एवं ग्रिड कनेक्टिविटी के विनियम के तहत नेट मीटरिंग से संबंधित उपकरण स्थापना का संपूर्ण दायित्व सप्लायर का होगा एवं यह कार्यवाही अधिकृत सप्लायर द्वारा तुरन्त प्रभाव से की जावेगी ताकि लाभार्थी को पावर प्लान्ट से उत्पन्न होने वाली एवं ग्रिड में जाने वाली अतिरिक्त ऊर्जा का लाभ मिल सके। इस बाबत् लाभार्थी से कोई अतिरिक्त भुगतान नहीं लेगा।
19. यह कि अधिकृत सप्लायर उपकरण स्थापना के पश्चात् पाँच वर्षों तक सामान्य रखरखाव एवं ब्रेक डाउन मेन्टेनेन्स सेवाये लाभार्थी को उपलब्ध करवायेगा।
20. यह कि अधिकृत सप्लायर अपने कर्मचारियों/एजेन्ट को इस कार्य के लिए तहसील मुख्यालय (or at proper place) पर नियुक्त रखेंगे जिससे लाभार्थी इन से सीधे सम्पर्क रख सकेंगे। इस बाबत् कर्मचारी के सम्पर्क नम्बर आवश्यक रूप से लाभार्थी को उपलब्ध करवायेगा।
21. अधिकृत सप्लायर के कर्मचारियों/एजेन्ट को पहचान पत्र देकर रखेंगे जो दिखाने पर ही लाभान्वित उनको पावर प्लान्ट स्थापना स्थान पर प्रवेश करने देगा।
22. अन्य किसी बिन्दु पर राजस्थान अक्षय ऊर्जा निगम के प्रबन्ध निदेशक का फैसला अन्तिम व मान्य होगा।

यह अनुबन्ध आज दिनांक.....को दोनों पक्षों ने अपनी पूर्ण समझबूझ एवं आपसी सहमति से निष्पादित किया है एवं उक्त शर्तों से भविष्य में पाबन्द रहेंगे।

हस्ताक्षर

हस्ताक्षर

अधिकृत सप्लायर के अधिकृत प्रतिनिधि नाम..... पद..... विभाग.....मो.न.	लाभार्थी संस्था/संस्थान के अधिकृत प्रतिनिधि का नाम पुत्र श्री..... पता:.....जिला
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**Annexure-10****FORMAT OF INSTALLATION CERTIFICATE**

GSTIN No:	M/s..... Address:	Phone No: Fax No: E-mail :
-----------	----------------------	----------------------------------

Date of Installation :**Subsidy claim Note No:**

Name of Beneficiary :
 Address of Place of Installation :
 Name of City :, Tel.No:/Mobile No: Email
 Id:.....
 Adhaar No.....,K.No. in Electricity Bill.....,
 Location of Project (Latitude, Longitude in decimal)

Certified thatkW PV Capacity SPV Roof Top Grid connected Power Plant in reference to RREC RC order No:.....Dated:..... and further sanction letter No: Dated:..... has been installed and commissioned at the place mentioned and taken over the system by beneficiary in good working condition: The details of material supplied and installed are as under :

S.No.	Item:	Make & capacity of each	Quantity	Serial Numbers.
1.	SPV Module ofWp each:			
2.	Invertor/ PCU			
3.	Module Stand			
4.	Cable			
5.	Lighting Arrestor			
6.	Surge Protection device			
7.	Other items.....			

Signature of Beneficiary:

Signature of Firm's authorised Person PO/PM, RREC verification.
 With seal.

Note:GSTIN No. should be printed or stamped properly.

**Annexure-10(A)****Joint Inspection Report**

Certified that kWp Solar Power Plant under Rooftop Scheme of RREC in reference to RREC work order No.F.7()RREC/Roof Top SPV Prg/NIT/2019-20/D. Dated has been installed and commissioned at the place of beneficiary i.e. Sh./Smt./Miss. The details of material supplied and installed are as under :

S.No.	Details			
1.	Solar Structure			
2.	Solar Module a) Capacity b) Make c) Nos.			
3.	DCDB			
4.	ACDB			
5.	Solar Inverter	I	II	III
	a) Capacity b) Make c) Nos. d) Reading			
6.	Solar Meter & Net Energy Meter	Solar Meter a) Capacity b) Make c) No. d) Reading		Net Meter a) Capacity b) Make c) No. Reading
7.	Earthing			
8.	LA			
9.	Certificate of Electrical Inspector	Attached		
10.	Remote Monitoring System Provided	YES		
11.	Instruction Manual, Guarantee Card & Invoice of System Provided to beneficiary	YES / NO		

The above system has been inspected by us jointly on dated and the same was found working satisfactorily and taken over in good condition by beneficiary.

**Signature of Beneficiary/
Representative**

**Signature of Firm's
Representative**

**Project Manager/ Officer
RREC (Name with Seal)**

Name
Designation
Address
Contact No.
Email id



Annexure-10(B)

UNDERTAKING

(To be submitted on Company's letterhead)

Certified that _____kWp PV Capacity grid connected SPV Power Plant in reference to RREC Rate Contract Order No. F.7()RREC/Roof Top SPV Prg/NIT/2019-20/D----- dated ----- and further sanction letter No. F.7()RREC/RT SPV Prg/_____/2019-20/D. _____ dated _____ has been installed and commissioned in good condition at _____ as per technical specification of Tender document and Rate Contract and according to PDI.

A CMC contract agreement as per the format of tender document 'Annexure-9' has been executed with beneficiary.

Signature of Authorised Representative of Firm

Name
Designation
Address
Contact No.
Email id



Annexure-11(A)

Compliance with the Code of integrity and No Conflict of interest

Any person participating in a procurement process shall –

- (a) not offer any bribe, reward or gift or any material benefit either directly or indirectly in exchange for an unfair advantage in procurement process or to otherwise influence the procurement process;
- (b) not misrepresent or omit that misleads or attempts to mislead so as to obtain a financial or other benefit or avoid an obligation;
- (c) not indulge in any collusion, Bid rigging or anti-competitive behaviour to impair the transparency, fairness and progress of the procurement process;
- (d) not misuse any information shared between the procuring Entity and the Bidders with an intent to gain unfair advantage in the procurement process;
- (e) not indulge in any coercion including impairing or harming or threatening to do the same, directly or indirectly, to any party or to its property to influence the procurement process;
- (f) not obstruct any investigation or audit of a procurement process;
- (g) disclose conflict of interest, if any; and
- (h) disclose any previous transgressions with any Entity in India or any other country during the last three years or any debarment by any other procuring entity.

Conflict of Interest:-

The Bidder participating in a bidding process must not have a Conflict of Interest.

A Conflict of Interest is considered to be a situation in which a party has interests that could improperly influence that party's performance of official duties or responsibilities, contractual obligations, or compliance with applicable laws and regulations. i. A Bidder may be considered to be in Conflict of Interest with one or more parties in a bidding process if, including but not limited to:

- (a) have controlling partners/ shareholders in common; or
- (b) receive or have received any direct or indirect subsidy from any of them; or
- (c) have the same legal representative for purposes of the Bid; or
- (d) have a relationship with each other, directly or through common third parties, that puts them in a position to have access to information about or influence on the Bid of another Bidder, or influence the decisions of the Procuring Entity regarding the bidding process; or
- (e) the Bidder participates in more than one Bid in a bidding process. Participation by a Bidder in more than one Bid will result in the disqualification of all Bids in which the Bidder is involved. However, this does not limit the inclusion of the same subcontractor, not otherwise participating as a Bidder in more than one Bid; or
- (f) the Bidder or any of its affiliates participated as a consultant in the preparation of the design or technical specifications of the Goods, Works or Services that are the subject of the Bid; or
- (g) Bidder or any of its affiliates has been hired (or is proposed to be hired) by the procuring entity as engineer-in-charge consultant for the contract.

SIGNATURE OF AUTHORISED
SIGNATORY WITH SEAL



Annexure-11(B)

Declaration by the Bidder regarding Qualifications

Declaration by the Bidder

In relation to my/our Bid submitted to.....for
procurement of..... in response to their Notice Inviting Bids
No..... Dated

I/we hereby declare under Section-7 of Rajasthan Transparency in Public Procurement Act,
2012, that:

1. I/we possess the necessary professional, technical, financial and managerial resources and competence required by the Bidding Document issued by the Procuring Entity;
2. I/we have fulfilled my/our obligation to pay such of the taxes payable to the Union and the State Government or any local authority as specified in the Bidding Document;
3. I/we are not insolvent, in receivership, bankrupt or being wound up, not have my/our affairs administered by a court or a judicial officer, not have my/our business activities suspended and not the subject of legal proceedings for any of the foregoing reasons;
4. I/we do not have, and our directors and officers not have, been convicted of any criminal offence related to my/our professional conduct or the making of false statements or misrepresentations as to my/our qualifications to enter into a procurement contract within a period of three years preceding the commencement of this procurement process, or not have been otherwise disqualified pursuant to debarment proceedings;
5. I/we do not have a conflict of interest as specified in the Act, Rules and the Bidding Document, which materially affects fair competition;

SIGNATURE OF AUTHORISED
SIGNATORY WITH SEAL

Date:

Name :

Designation:

Address:



Annexure-11(C)

Grievance Redressal during Procurement Process

The designation and address of the First Appellate Authority is the Managing Director, RREC, Jaipur.

The designation and address of the Second Appellate Authority is the Chairman, RREC, Jaipur

(1) Filing an appeal

If any Bidder or prospective bidder is aggrieved that any decision, action or omission of the Procuring Entity is in contravention to the provisions of the Act or the Rules or the Guidelines issued thereunder, he may file an appeal to First Appellate Authority, as specified in the Bidding Document within a period of ten days from the date of such decision or action, omission, as the case may be, clearly giving the specific ground or grounds on which he feels aggrieved:

Provided that after the declaration of a Bidder as successful the appeal may be filed only by a Bidder who has participated in procurement proceedings:

Provided further that in case a Procuring Entity evaluates the Technical Bids before the opening of the Financial Bids, an appeal related to the matter of Financial Bids may be filed only by a Bidder whose Technical Bid is found to be acceptable.

(2) The officer to whom an appeal is filed under para (1) shall deal with the appeal as expeditiously as possible and shall endeavour to dispose it of within thirty days from the date of the appeal.

(3) If the officer designated under para (1) fails to dispose of the appeal filed within the period specified in para (2), or if the Bidder or prospective bidder or the Procuring Entity is aggrieved by the order passed by the First Appellate Authority, the Bidder or prospective bidder or the Procuring Entity, as the case may be, may file a second appeal to Second Appellate Authority specified in the Bidding Document in this behalf within fifteen days from the expiry of the period specified in para (2) or of the date of receipt of the order passed by the First Appellate Authority, as the case may be.

(4)Appeal not to lie in certain cases

No appeal shall lie against any decision of the Procuring Entity relating to the following matters, namely:-

- (a) determination of need of procurement;
- (b) provisions limiting participation of Bidders in the Bid process;
- (c) the decision of whether or not to enter into negotiations;
- (d) cancellation of a procurement process;
- (e) applicability of the provisions of confidentiality.



(5) Form of Appeal

- (a) An appeal under para (I) or (3) above shall be in the annexed Form alongwith as many copies as there are respondents in the appeal.
- (b) Every appeal shall be accompanied by an order appealed against, if any, affidavit verifying the facts stated in the appeal and proof of payment of fee.
- (c) Every appeal may be presented to First Appellate Authority or Second Appellate Authority, as the case may be, in person or through registered post or authorised representative.

(6) Fee for filing appeal

- (a) Fee for first appeal shall be rupees two thousand five hundred and for second appeal shall be rupees ten thousand, which shall be non-refundable
- (b) The fee shall be paid in the form of bank demand draft or banker's cheque of a Scheduled Bank in India payable in the name of Appellate Authority concerned.

(7) Procedure for disposal of appeal

- (a) The First Appellate Authority or Second Appellate Authority, as the case may be, upon filing of appeal, shall issue notice accompanied by copy of appeal, affidavit and documents, if any, to the respondents and fix date of hearing.
- (b) On the date fixed for hearing, the First Appellate Authority or Second Appellate Authority, as the case may be, shall,-
 - (i) hear all the parties to appeal present before him; and
 - (ii) peruse or inspect documents, relevant records or copies thereof relating to the matter.
- (c) After hearing the parties, perusal or inspection of documents and relevant records or copies thereof relating to the matter, the Appellate Authority concerned shall pass an order in writing and provide the copy of order to the parties to appeal free of cost.
- (d) The order passed under sub-clause (c) above shall also be placed on the State Public Procurement Portal.

SIGNATURE OF AUTHORISED
SIGNATORY WITH SEAL



Annexure-11(D)

Additional Conditions of Contract

1. Correction of arithmetical errors

Provided that a Financial bid is substantially responsive, the Procuring Entity will correct arithmetical errors during evaluation of Financial Bids on the following basis:

- i. if there is a discrepancy between the unit price and the total price that is obtained by multiplying the unit price and quantity, the unit price shall prevail and the total price shall be corrected, unless in the opinion of the Procuring Entity there is an obvious misplacement of the decimal point in the unit price, in which case the total price as quoted shall govern and the unit price shall be corrected;
- ii. if there is an error in a total corresponding to the addition or subtraction of subtotals, the subtotals shall prevail and the total shall be corrected; and
- iii. if there is a discrepancy between words and figures, the amount in words shall prevail, unless the amount expressed in words is related to an arithmetic error, in which case the amount in figures shall prevail subject to (i) and (ii) above.

If the Bidder that submitted the lowest evaluated Bid does not accept the correction of errors, its Bid shall be disqualified and its Bid Security shall be forfeited or its Bid Securing Declaration shall be executed.

2. Procuring Entity's Right to Vary Quantities

- (1) If the procuring entity does not procure any subject matter of procurement or procures less than the quantity specified in the bidding documents due to change in circumstances, the bidder shall not be entitled for any claim or compensation except otherwise provided in the bidding documents.
- (2) Orders for extra items may be placed by the procuring entity in accordance with the Schedule of Powers as prescribed by the Finance Department, upto 5% of the value of the original contract, if allowed in the bidding documents. The fair market value of such extra items payable by the procuring entity to the contractor shall be determined by the procuring entity in accordance with guidelines prescribed by the administrative department concerned.
- (3) Orders for additional quantities may be placed, if allowed in the bidding documents, on the rates and conditions given in the contract and the original order was given after inviting open competitive bids. Delivery or completion period may also be proportionately increased. The limits of orders for additional quantities shall be as under :-
 - (a) 50% of the quantity of the individual items and 50% of the value of original contract in case of works; and
 - (b) 50% of the value of goods or services of the original contract.

Provided that in exceptional circumstances and without changing the scope of work envisaged under the contract, a procuring entity may procure additional quantities beyond 50% of the quantity of the individual items as provided in the original work order with prior approval of the Administrative Department concerned as follows :-

- (i) the procuring entity shall obtain prior approval for revised requirements from the competent authority for reasons to be recorded in writing. Wherever necessary, due to



- the quantum of orders for additional quantities, the procuring entity shall obtain prior and revised technical, financial and administrative sanctions from the competent authorities;
- (ii) that the additional quantities so procured shall be part and parcel of the work being executed;
 - (iii) that the limit of 50% of the value of original contract shall not be exceeded in any case.]

SIGNATURE OF AUTHORISED
SIGNATORY WITH SEAL



Annexure-12

Format of Subsidy Claim Note

GSTIN No:	M/s..... Address:	Phone No: Fax No: E-mail :
-----------	----------------------	----------------------------------

Subsidy claim Note No:

Date:

The Managing Director,
Rajasthan Renewable Energy Corp. Ltd.,
E-166, Yudhisthir Marg, C-Scheme, Jaipur.

Sir,

Please arrange to issue subsidy to M/s ----- against supply, installation and commissioning of SPV Roof Top Grid Connected Systems under Roof Top solar Power generation scheme 2019-20 in reference to RREC Rate contract No: Dated :, Letter of Allocation (LoA) No. Datedand Project sanction No: Dated:

Maintenance services for this system shall be provided by our local representative M/s./Mr..... (Tel./Mob. No:).

Details of Beneficiary :.....,
Place of Installation of System:
Invoice No / Date :(As issued to beneficiary Copy Enclosed),
PV Capacity of system installed :

S. No.	Details:		Amount:
1.	Total Price of system :		
	1.	Supply Price including GST	Rs.
	2.	Installation & commissioning price:	Rs.
	3.	Charges for CMC of 5 Years:	Rs.
	4.	Service tax on 2&3	Rs.
	5.	Total :	Rs.
2.	Amount already received as beneficiary share { 60%/80% or balance after deducting RREC subsidy of the system cost } :		(-)
3.	Total admissible subsidy receivable from RREC :		
4.	Amount presently receivable as per terms & conditions of RC {80% of subsidy} :		

Firm's Authorized Signature with seal



Certificate from Project Officer, RRECL

Following are certified in reference to RREC, Project order referred above for supply, installation & commissioning ofkWp SPV Roof Top Grid Connected system installed by the Empanelled Vendor:

1. A CMC contract agreement as per the format at Annexure -9 of Tender Document has been executed with the beneficiary.
2. The material supplied is as per pre-despatch inspection clearance of RREC.
3. The Power Plant has been installed & commissioned in good condition as per technical specification of tender document and Rate Contract.
4. The work has been completed on dated:{within stipulated period /with a delay of days}.
5. Instruction Manual, Guarantee Card & Invoice of system has been provided to beneficiaries.
6. The performance of the Power plant for 10 days period has been checked and found as per requirement.

Verified for payment of subsidy amount Rs. ----- (Rs. -----).

Signature of Project Officer,
RRECL, with seal



Annexure-13

**Declaration of material proposed for supply under this programme
by the Bidder**

S.No.	Detail of Products/material proposed for supply for different models:	Make	Tested from { Enclose the test certificate}

SIGNATURE OF AUTHORISED
SIGNATORY WITH SEAL



Annexure-14.

Joint Bidding/ Consortium Agreement Format for “Award &/ or Empanelment of Partners for Design, Supply, Installation, Commissioning and maintenance of Grid Connected SPV Roof Top Systems” in Rajasthan
(To be executed on Stamp Paper of INR 500/-)

THIS JOINT BIDDING AGREEMENT is entered into on thisday of2017.

BETWEEN

{....., lead member of consortium} and having its registered office at (Hereinafter referred to as the “**First Part**” which expression shall, unless repugnant to the context include its successors and permitted assigns)

AND

..... Having its registered office at (Hereinafter referred to as the “**Second Part**” which expression shall, unless repugnant to the context include its successors and permitted assigns)

The above mentioned parties of the First and Second Part are collectively referred to as the “**Parties**” and each is individually referred as a “**Party**”

WHERE AS,

- i. Rajasthan Renewable Energy Corporation (hereinafter referred to as the “**Corporation**” which expression shall, unless repugnant to the context or meaning thereof , include its administrators, successors and assigns) has invited applications (the “**Applications**”) by its RFP: RREC/Roof Top SPV Prg./19-20/.... dated 25.10.2019 for award of the rate contract/ work under “Rooftop Solar Power Generation Scheme” of Solar Roof Top System installation (hereinafter called “**Project**”) in Rajasthan and empanelment for the same.
- ii. The Parties are interested in jointly bidding for the Project as members of consortium in accordance with the terms and conditions of the RFP document and other bid documents in respect of the Project, and
- iii. It is a necessary condition under the RFP document that the members of the Consortium shall enter into a Joint Bidding Agreement and furnish a copy thereof with the Application.

NOW IT IS HEREBY AGREED as follows: Definitions and Interpretations

In this agreement, the capitalized terms shall, unless the context otherwise require, have the Meaning ascribed thereto under the RFP: RREC/Roof Top SPV Prg./19-20/.... dated 25.10.2019.



1. Consortium

The Parties do hereby irrevocably constitute a consortium (the “**Consortium**”) for the purposes of jointly participating in the Bidding Process for the Project.

The Parties hereby undertake to participate in the Bidding Process only through this Consortium and not individually and/ or through any other consortium constituted for this Project, either directly or indirectly or through any of their Associates.

2. Role of the Parties

The Parties hereby undertake to perform the roles and responsibilities as described below:

- (a) Party of the First Part shall be the Lead member of the Consortium and shall have the power of attorney from all Parties for conducting all business for and on behalf of the Consortium during the Bidding Process & after it once selected as successful bidder.
- (b) Party of the First Part would be responsible for successful execution of all work awarded to them by RREC and in no circumstances the same shall be the responsibility of Second Part.
- (c) Party of the Second Part shall work in accordance to roles and responsibilities assigned to them from First Part as a part of their internal understanding.
- (d) Parties have agreed and documented clearly stated roles and responsibilities between First Part and Second Part for execution of work awarded by RREC.

3. Joint and Several Liabilities

The Party of the First Part does hereby undertake the responsibility for all obligations and liabilities relating to the Project and in accordance with the terms of RFP.

4. Termination

This Agreement shall be effective from the date hereof and shall continue in full force and effect until the date of validity period of Award & /Or Empanelment and further in accordance with the Letter of Award subsequently issued if bid arrives as successful. However, in case the Consortium is either not pre-qualified for the Project or does not get selected for Award of the work, the Agreement will stand terminated in case the Applicant is not pre-qualified.

5. Miscellaneous

This Joint Bidding Agreement shall be governed by laws of India.

The Parties acknowledge and accept that this Agreement shall not be amended by Parties without the prior written consent of the Corporation.

Party of First Part would decide on the representative of Consortium at Corporation.

IN WITNESS WHERE OF THE PARTIES ABOVE NAMED HAVE EXECUTED AND DELIVERED THIS AGREEMENT AS OF THE DATE FIRST ABOVE WRITTEN.



SIGNED, SEALED AND DELIVERED
For and on behalf of
LEAD MEMBER by:

(Signature)

(Name)
(Designation)
(Address)
In Presence of :
Witness 1

Witness 2

SIGNED, SEALED AND DELIVERED
SECOND PART

(Signature)

(Name)
(Designation)
(Address)

Witness 1

Witness 2



Annexure-15

QUARTERLY MAINTENANCE & SERVICING REPORT

1. DETAILS OF SOLAR PHOTOVOLTAIC SYSTEM INSTALLED

1. Supplied by :
2. Date of installation:
3. Servicing period : From to

2. BENEFICIARY PROFILE

1. Name and address of Beneficiary:

3. TECHNICAL DETAILS

1. Module Capacity, make and serial numbers :
2. Inverter Capacity, make and serial no.

4. CHECK OF THE PRODUCT

1. Correct inclination and orientation of SPV panel :
2. Cleaning of dust from SPV panel :
3. Interconnection of modules, charge controller etc.:
4. Fuse of charge controller:
5. Working of inverter

**5. DIFFICULTIES IN OPERATION/ PROBLEM
FACED BY BENEFICIARY:**

6. DIAGNOSIS DETAILS/ REPAIR ACTION:

7. DATE ON WHICH SYSTEM WAS LAST ATTENDED:

8. GENERATION DATA AND CUF DURING THE PERIOD

7. REMARKS:

It is mandatory to submit Installation wise Quarterly Energy Generation Data to RREC/
respective Discom.

Beneficiary Name & Signature
Date:

Firm's Name & Signature of Authorised Person
(with rubber stamp)

**Annexure-16**

**FORMAT FOR CERTIFICATE OF RELATIONSHIP OF PARENT COMPANY
OR AFFILIATE WITH THE BIDDER**

To,

.....

Dear Sir,

Sub: Bid for Implementation of Grid connected Rooftop Solar PV System Scheme.

We hereby certify that M/s.....,M/s.....are the Affiliate(s)/Parent Company of the Bidder as per the definition of Affiliate/Parent Company as provided in this RfS and based on details of equity holding as on seven (7) days prior to the Bid Deadline.

The details of equity holding of the Affiliate/Parent Company/Bidder or vice versa as on seven (7) days prior to the Bid Deadline are given as below:

Name of Bidder	Name of the Affiliate of Bidder / Name of the Parent Company of the Bidder	Name of the Company having common control on the Affiliate and the Bidder	Percentage of Equity Holding of Parent Company in the Bidder

*Strike out whichever is not applicable.

(Insert Name and Signature of Statutory Auditor or practising Company Secretary of the Bidder)



Annexure -17

**UNDERTAKING FROM THE FINANCIALLY EVALUATED ENTITY OR ITS
PARENT COMPANY / ULTIMATE PARENT COMPANY**

(On the Letter Head of the Financially Evaluated Entity or its Parent
Company/Ultimate Parent Company)

Name:

Full Address:

Telephone No.:

E-mail address:

Fax/No.:

To,

.....

Dear Sir,

We refer to the Tender No dated for Design, Supply, Installation, testing, Commissioning and Maintenance for 5 Years of grid connected SPV Power Plants in the State of Rajasthan under “Rooftop Solar Power generation scheme” of RREC for 2019-20.

“We have carefully read and examined in detail the Tender, including in particular, Clause of the Tender, regarding submission of an undertaking, as per the prescribed Format at Annexure of the Tender.

We confirm that M/s..... (insert name of bidding company) has been authorised by us to use our financial capability for meeting the Financial Eligibility as specified in Clause of the Tender referred to above.

We have also noted the amount of the Performance Guarantee required to be submitted as per Clause of the Tender the (insert name of bidding company) in the event of it being selected as the Successful Bidder.

In view of the above, we hereby undertake to you and confirm that in the event of failure of(insert name of bidding company)to submit the Performance Guarantee in full or in part at any stage, as specified in the RfS, we shall submit the Performance Guarantee not submitted by(insert name of bidding company).

We have attached hereto certified true copy of the Board Resolution Whereby the Board of Directors of our Company has approved issue of this Undertaking by the Company.

All the terms used herein but not defined, shall have the meaning as ascribed to the said terms under the Tender.

Signature of Authorised Signatory



Common seal ofhas been affixed in my/our presence pursuant to Board of Director's Resolution dated.....

WITNESS

.....

(Signature)

Name.....

Designation.....

.....

(Signature)

Name.....

Designation.....



Annexure-18

No. 318/331/2017-Grid Connected Rooftop
Government of India
Ministry of New and Renewable Energy

Block no. 14, CGO Complex,
Lodi Road, New Delhi,
Dated 20th August 2019

Office Memorandum

Subject: Operational Guidelines for implementation of Phase - II of Grid Connected Rooftop Solar Programme for achieving cumulative capacity of 40,000 MW from Rooftop Solar (RTS) Projects by the year 2022

This refers Ministry's Order No 318/331/2017-GCRT Division dated 8th March 2019 vide which sanction was issued for launch of Phase - II of Grid Connected Rooftop Solar Programme for achieving cumulative capacity of 40,000 MW from Rooftop Solar (RTS) Projects by the year 2022 covering following components: -

- (i) Component- A: Setting up of 4000 MW of Grid Connected Rooftop plants in residential sector with Central Financial Assistance (CFA)
 - (ii) Component- B: Incentives to Discoms based on achievement for installing additional grid connected rooftop capacity in all sectors over and above the base level, with the incentive being limited to the first additional 18000 MW of rooftop capacity added in the country. Achievement above this level will not be eligible for any incentive.
2. The Operational Guidelines for implementation of Phase II of the Grid Connected Rooftop Solar Programme programme are enclosed.
 3. This issues with the approval of Competent Authority.

(Aujender Singh)

Deputy Secretary to the Govt. of India

To,

1. All central Ministries and Departments
2. ACS/Principal Secretaries/Secretaries (Renewable Energy/Energy/Power) of States/UTs
3. DISCOMs/ State Nodal Agencies of all States/UTs
4. Principal Director of Audit, Scientific Audit-II, DGACR Building, I.P. Estate, Delhi
5. Pay and Account Officer, MNRE, New Delhi

Copy to:

1. PS to Hon'ble Minister of State (I/C) for Power, NRE and Skill Development and Entrepreneurship
2. PPS to Secretary/AS/AS&FA, MNRE
3. All Advisers & Group Heads
4. Director(NIC) to upload this on the Ministry's website
5. Sanction folder

(Aujender Singh)

Deputy Secretary to the Govt. of India



Guidelines on implementation of Phase – II of Grid Connected Rooftop Solar Programme for achieving 40 GW capacity from Rooftop Solar by the year 2022

1.0 Background

1.1 As a part of Intended Nationally Determined Contributions (INDCs), India has committed to increase the share of installed capacity of electric power from non-fossil-fuel sources to 40% by 2030. Solar energy is one of the main source to accomplish the target of 40% of electric power from non-fossil-fuel. Government of India has set the target of achieving 100 GW of solar power capacity in the country by the year 2022 of which 40 GW to be achieved from rooftop solar (RTS).

1.2 The rooftop solar (RTS) plant is a system installed mainly on the roof of a building and includes installations on open contiguous land within the area of premises wherein valid and live electricity connection has been provided by the concern Distribution utilities/companies (DISCOMS). Typically, 1(one) kWp RTS plant requires about 10 sq. m area. The Solar power so generated can then be used either for captive consumption of the premises or can be fed into the grid and be adjusted in the electricity bill. Net-metering regulations notified by respective State Electricity Regulatory Commissions (SERCs) provide a legal framework for such adjustment. RTS plants help DISCOMs in reducing transmission and distribution losses as power consumption and generation are co-located. These Plants are also useful in tackling day time peak load as solar generation profile matches such peak loads during the day.

1.3 The Government, on 30th December 2015, approved a program 'Grid Connected Rooftop and Small Solar Power Plants Programme' for installation of 4,200 MW RTS plants in the country by year 2019-20, of which 2,100 MW was through CFA and balance 2,100 MW was without CFA. The RTS projects sanctioned under this Program are under implementation by State Nodal Agencies (SNA's), Solar Energy Corporation of India (SECI), Public Sector Undertakings (PSUs) and other Government Agencies (GAs).

2.0 The Government, on 19th February 2019 approved Phase-II of 'Grid Connected Rooftop and Small Solar Power Plants Programme' for achieving cumulative capacity of 40 GW RTS plants by 2022. In Phase-II, it has been decided to implement the programme by making the DISCOMs and its local offices as the nodal points for implementation of the RTS programme. DISCOMs will play a key role in expansion of RTS as DISCOMs are having a direct contact with end user and they provide approval for installation, manage the distribution network and also have billing interface with rooftop owner.

3 Aim and Objectives of Phase-II of Grid Connected Rooftop Solar Programme

The key objectives of the programme are:

- a. To promote grid connected RTS in all consumer segments, viz., residential, institutional, social, Govt., commercial, industrial etc.
- b. To bring DISCOMs at forefront as key drivers for rapid deployment of RTS.
- c. To create awareness, capacity building, human resource development, etc.
- d. To promote sustainable business models.
- e. To create additional RTS capacity of 38000 MW in the country by 31.12.2022 out of which a capacity of 4000 MW in residential sector with Central Financial Assistance and 34000 MW in other sectors (i.e., Social, Government, educational, PSUs,



Statutory /Autonomous bodies, Private Commercial, Industrial Sectors etc.) by suitably incentivizing DISCOMs

- f. To promote domestic manufacturing of solar cells and module

4 Strategy

The programme will be implemented through DISCOMs. This will lead to ease of access for the consumers. The programme provides for Central Financial Assistance (CFA) for the household owner and Group Housing Societies to set up RTS on the rooftop of their residence/residential campus. DISCOMs should create customer friendly environment by making enabling provisions in their regulations and smooth approval process required for RTS. Since the requisite expertise on solar energy for implementation of this Programme may not be available with DISCOMs, they will be at liberty to use the services of State Nodal Agencies (SNAs) engaged in the promotion of Renewable Energy of the respective States/UTs.

5. Implementation arrangement

The following major issues have been identified during the Phase-I of RTS programme: -

- Multiple tenders by different agencies and subsequently considerable delay in tendering.
- Involvement of multiple stakeholder viz. SNAs, DISCOMs, PSUs, Developers etc.
- Lack of uniform regulation/mandatory notification for rooftop solar
- Lack of uniform regulations.
- Lack of awareness among the prospective beneficiaries.

To address the above issues, and especially the fact that the consumer had to approach multiple agencies for getting a RTS plant installed, it has been decided to implement the programme by making the DISCOMs and its local offices as the nodal points for implementation of the RTS programme. The major components of this phase II of the programme are: -

- Component A: Setting up of 4000 MW of grid connected rooftop solar projects in residential sector with Central Financial Assistance (CFA)
- Component B: Incentives to Electricity Distribution Companies (DISCOMs) based on achievement towards initial 18000 MW of grid connected rooftop solar plants

5.1.1 Component A: Setting up of 4000 MW of grid connected rooftop solar projects in residential sector with Central Financial Assistance (CFA): In most of the States/UTs the residential sector enjoys benefit of subsidized electricity; therefore, beneficiaries of this sector would not be inclined to adopt rooftop solar until some capital CFA mechanism is put in place to reduce the cost of rooftop solar. Further, considering the fact that lower consumption slab pays lower tariff and vice versa, the CFA for RTS is also required to be restructured.

5.1.2 The CFA has been restructured and higher CFA up to 40 % will be given for RTS systems up to 3 kW capacity. For RTS systems of capacity above 3 kW and up to 10 kW, the CFA of 40% would be applicable only for the first 3 kW capacity and for capacity above 3 kW the CFA would be limited to 20 %. The residential sectors users may install RTS plant of



even higher capacity as per their requirement and the respective SERC regulation; however, the CFA would be limited for first 10 kWp capacity RTS plant as mentioned above.

5.1.3 For Group Housing Societies/Residential Welfare Associations (GHS/RWA) CFA will be limited to 20% for installation of RTS plant for supply of power to common facilities. The capacity eligible for CFA for GHS/ RWA will be limited to 10 kWp per house and total not more than 500 kWp, inclusive of RTS already installed on individual houses in that GHS/ RWA at the time of installation of RTS for common activity.

5.1.4 For the purpose of this component of the programme, Residential RTS plant would be the solar power system installed mainly on the roof of a residential building having an active residential power connection from the local DISCOM, and would also include installations on open contiguous land within the premises of the Residential building. The CFA pattern for the residential sector will be as follows: -

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.

** Benchmark cost may be different in General Category States/UTs and Special Category States/UTs i.e., North Eastern States including Sikkim, Uttarakhand, Himachal Pradesh, Jammu & Kashmir, Lakshadweep, and Andaman & Nicobar Islands. CFA shall be on benchmark cost of MNRE for the state/ UT or lowest of the costs discovered in the tenders for that state/ UT, whichever is lower

5.1.5 MNRE will allocate capacity for installation of RTS System in residential sector by DISCOMS in the ensuing year. One of the parameters for allocating the capacity will be the demand raised by the DISCOM and capacity required for fulfilment of solar RPO of the State as notified by Ministry of Power. For this, DISCOMs will be required to submit yearly online proposal, in MNRE's SPIN portal (www.solarrooftop.gov.in) by the month of March. However, for the Year 2019-20, the DISCOMs shall be permitted to submit proposals in MNRE's SPIN portal within one month from the date of publication of these operational guidelines. Further, MNRE may ask for demand from DISCOMs directly to the Ministry, instead of going through the SPIN portal. In addition, preference would be given to



States/UTs who provide an additional subsidy/benefit over and above the CFA being given by the Central Government.

5.1.6 The implementing agency i.e. Discoms or its authorised agency shall invite Expression of Interest for empanelment of agencies for supply, installation, testing & commissioning of RTS system in residential premises. To ensure quality and post installation services only manufacturers of solar panels and system integrators fulfilling pre-determined technical and financial criteria would be allowed to participate in the bidding process. 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. All the bidders within the price bracket of $(L1 + X\% \text{ of } L1)$ shall be empanelled. The digit "X" may be decided by the agency and should be clearly indicated while inviting Expression of Interest. The digit "X" shall not be more than 25. Further, if total no. of empanelled agencies are found to be less than 5 in the acceptable band, then the DISCOM may also include those agencies who fall in $L1 + (X+5)\% \text{ of } L1$, provided they agree to match L1.

5.1.7 The beneficiary will have option of installing RTS system through any of these empanelled vendors at net of CFA amount i.e. making payment to the vendors after deducting the eligible CFA amount. The vendor will claim the CFA from the implementing agency. The CFA for residential sector as stated above shall be permissible only if domestic manufactured Solar Panels (using domestic manufactured Solar cells) are used by the beneficiary. However, CFA will be limited up to 20% / 40% (as the case may be) of the benchmark cost of RTS system as defined by MNRE from time to time or the rate discovered through transparent bidding by the implementing agency, whichever is lower. In case of RESCO model the benefit of the CFA should be passed on to the customer in the form of reduced tariff by factoring in the CFA through competitive process. Provisions of GFR shall be applicable for projects where Ministry is providing financial support.

5.1.8 The Implementing agency or Ministry officials or designated agency may inspect the ongoing installation or installed plants. In case the systems are not as per standards, non-functional on account of poor quality of installation, or non-compliance of AMC, the implementing agency/Ministry reserves the right to blacklist the vendor. Blacklisting may inter-alia include the following: -

- a. The Vendor/Firm will not be eligible to participate in tenders for Government supported projects.
- b. In case, the concerned Director(s) of the firm/company joins another existing or starts/ joins a new firm/company, the company will automatically be blacklisted.

5.1.9 The participating Government owned DISCOMs will be eligible to avail advance CFA up to 30% of the total CFA amount for the project. For private DISCOMs, CFA will be disbursed on reimbursement basis. However, if required private DISCOMs will be eligible to avail advance CFA upon submission of bank guarantee of an equivalent amount. More details on release of CFA slabs is given in para 11 of these guidelines. For settlement of project account, the implementing agency will have to submit the UC, Audited SoE, project completion certificate and online Project Completion reports in SPIN portal of MNRE. Implementing Agency will get service charges @ 3% of eligible CFA for implementing the programme for the various tasks as detailed in para 10 of these Guidelines. The service charges will be given only after completion of the project. The fund allocated in the



programme under the capacity building head would be retained by MNRE and would be utilized for carrying out capacity building activities only.

5.1.10 The beneficiary interested to install RTS plants will submit their application online or to the local office of the concerned DISCOM wherever the Online Portal is not developed, DISCOM will assist the consumer in all the activities related to sanction of CFA and commissioning and connectivity of the RTS plants through transparently enlisted vendors/manufacture/system integrators.

5.1.11 The entire process of receiving proposals, processing them and giving approvals would be IT enabled except in those DISCOMs where the Online Portal is not developed. Such DISCOMs shall avail the services of multilateral agencies nominated for each State for development of Online Portal for them during 2019-20. The SPIN portal will be made available to the DISCOMs to aggregate/register the demand of consumers in their operational area.

5.1.12 The consumer will pay only the balance amount, after excluding CFA portion, to the empanelled vendor. The CFA will be released through DISCOMs to the empanelled vendor after commissioning and inspection of RTS plant. DISCOMs shall adhere to the suggestive timelines for all such processes as defined in Annexure and ensure strict compliance of the same.

5.1.13 **Other than residential sector:** CFA will not be available for other categories i.e. institutional, educational, social, government, commercial and industrial sectors as the beneficiaries in these sectors are high tariff paying consumers and adoption of solar would be economically beneficial for them even without CFA. The power generated through RTS plant would result in significant reduction of the electricity bill paid by them to the DISCOMs, hence making it an economically viable solution. Although CFA is not admissible for non-residential sectors, the DISCOMs will be incentivized for addition of RTS capacity in these sectors too as described under para 5.2 below.

5.1.14 The capacity eligible for incentive to DISCOMs would cover the entire RTS capacity installed including the capacity installed without CFA and with CFA. DISCOMs are required to create enabling ecosystem for all such customers. DISCOMs shall notify guidelines for providing time bound approvals/connectivity. The various forms/formats/procedures, required for project implementation, shall be standardised by MNRE in consultation with Stakeholders.

5.1.15 **Method of metering:** While almost all States have approved regulations of net metering, for the purpose of this programme, the States may follow the metering method prescribed in the Tariff policy or as approved by the respective Electricity Regulator.

5.2 Component B: Incentives to Electricity Distribution Companies (DISCOMs) based on achievement towards initial 18000 MW of grid connected rooftop solar plants

5.2.1 Since DISCOMs are required to incur additional expenditure for implementation of programme in terms of additional man-power, creating infrastructure, capacity building, awareness, etc., these will be compensated by providing performance linked incentives. The incentives may be provided for each MWp capacity of solar rooftop, added by them in their distribution area over and above 10% of **base capacity installed at the end of previous**



year. However, such incentives will not be applicable with retrospective effect. These incentives will be provided to enable DISCOMs to create an enabling ecosystem for expeditious implementation of RTS projects in their area.

5.2.2 The tasks taken by DISCOMs shall include but not be limited to providing dedicated manpower for RTS implementation, rooftop assessment, bid process management to empanel system integrators along with rates, technical studies, up gradation in ERP system/components, providing time bound services to RTS consumers, inspection and online monitoring of RTS plants, online database management of commissioned capacity, consumer awareness and publicity, ensuring availability of net-meters, providing grid connectivity, capacity building of its officers/staff etc.

5.2.3 The DISCOMs will submit the cumulative capacity of grid connected RTS plants (in MWp) installed in their distribution area as on 31st March 2019. **This will be taken as the installed base capacity** for the first year of participating DISCOMs.

5.2.4 The incentives will be given on incremental RTS capacity installed by the DISCOMs in their distribution area from the installed base capacity (at the end of previous financial year) within the time line of 12 months (financial year-wise, i.e. 01.04.2019 to 31.03.2020 and so on till the duration of the programme). The incentive pattern would be a progressive one with higher incentive rates for higher levels of achievement. This is elaborated in the following table: -

S. No.	Parameter	Incentive to be Provided
1.	For installed capacity achieved above 10 % and up to 15 % over and above of the installed base capacity* within a financial year	5% of the applicable cost** for capacity achieved above 10 % of the installed base capacity
2.	For installed capacity achieved beyond 15 % over and above of the installed base capacity* within one financial year	5% of the applicable cost** for capacity achieved above 10 % and up to 15 % of the installed base capacity PLUS 10 % of the applicable cost** for capacity achieved beyond 15 % of the installed base capacity

**Installed base capacity shall mean the cumulative RTS capacity installed within the jurisdiction of DISCOM at the end of previous financial year. This will include total RTS capacity installed under residential, Institutional, Social, Govt., PSU, Statutory/ Autonomous bodies, Private Commercial, Industrial Sectors etc.*

*** Applicable Cost is the applicable benchmark cost of MNRE for the state/ UT for mid-range RTS capacity of above 10 kW and upto 100 kW or lowest of the costs discovered in the tenders for that state/ UT in that year, whichever is lower*



5.2.5 The incentive mechanism has been illustrated in the following table

Discoms	Installed base capacity (MW)	Achievement under programme (MW)	Percentage Achievement of installed base capacity (%)	Capacity eligible for 5% incentives (MW)	Capacity eligible for 10% incentives (MW)
A	100 MW	10 MW	10%	Nil	Nil
B	100 MW	12 MW	12%	2 MW	Nil
C	100 MW	20 MW	20%	5 MW	5 MW
D	100 MW	30 MW	30%	5 MW	15 MW

Note: The capacity eligible for incentives by DISCOMs would cover the entire capacity installed including the capacity installed without CFA and with CFA

5.2.6 The Incentives to the DISCOMs would be available only for the addition of initial 18000 MW RTS capacity in the country after launch of this programme. In case, higher capacity is achieved by the DISCOMs leading to entitlement for higher incentive slab of 10%, the total incentives to the DISCOMs would be limited to the financial outlay available for incentive under the programme, irrespective of the total capacity achieved under the programme by any particular DISCOM.

5.2.7 As the incentives are proposed for various reasons mentioned in 5.2.1 and 5.2.2, the above incentives proposed may not be a part of Tariff Determination & Tariff Rationalisation process of SERC /JERC.

6.0 Technology

6.1 The solar photovoltaic technology (including all forms of photo voltaic) based RTS projects for generation of electricity will be deployed under the Programme. Project proponents to adhere to the national/ international standards specified by MNRE from time to time. For subsidized projects (i.e. for residential projects detailed in para 5.1 above) only indigenously manufactured PV panels (both cells and modules) should be used.

6.2 Grid interactive SPV power plants, inverters, meters, cables, mounting structures and other balance of systems etc. should have the minimal technical requirements and quality control standards as prescribed by MNRE from time to time. The mechanical structures, electrical works including power conditioners/inverters/charge controllers/maximum power point tracker units/distribution boards/digital meters/switch gear/net-meters/storage batteries, etc. and over all workmanship of the RTS plants/ systems must be warranted against any manufacturing/ design/ installation defects for a minimum period of 5 years. Fulfilment of the warranty obligations of the complete Solar system shall rest with System integrator who in turn may claim the same from the component manufacturers.

6.3 Online monitoring system shall be provided by DISCOMs to ensure satisfactory functioning of all the RTS plants.



7 Management

7.1 The primarily responsibility of monitoring and reporting will be with the implementing agencies i.e. DISCOMs and they may carryout 3rd party inspection through National Monitors/Consultants, for ground verification/performance evaluation on random basis.

7.2 MNRE will hold regular review meetings to assess the implementation of the programme. MNRE will also do the physical sample inspection of the installed RTS plants for which CFA or Incentive has been claimed by the DISCOMs. Sample Inspection may be done by the officials of MNRE or any other designed Central Government agency.

7.3 The Ministry has developed the SPIN portal for uploading all details of RTS projects. Key features of installed plants, including geographical location, latitude- longitude, installed capacity, name & contact details of developer, project cost, etc. shall be uploaded by DISCOMs on this Portal. Ministry has also initiated process for geo-tagging of these projects with assistance of ISRO. Implementation Agencies have to submit progress reports from time to time to MNRE through SPIN.

8 Roles and responsibilities of stakeholders

8.1 Ministry of New and Renewable Energy: -

- i. MNRE shall allocate capacity for the ensuing year to different DISCOMs on the basis of demand, capacity required for fulfilment of solar RPO, any additional subsidy/benefit being given by the State/UT over and above the CFA being given by the Central Government, performance of the State/UT/DISCOM in the past, etc.
- ii. MNRE will release funds to the DISCOMs for disbursement of CFA to the vendors installing RTS plant in the residential sector.
- iii. The participating Government owned DISCOMs may avail advance CFA of up to 30% of the total CFA amount for the project. For private DISCOMs, CFA will be disbursed on reimbursement basis. CFA would be released on reimbursement basis for the capacity installed from time to time without any need to wait for the entire sanctioned capacity. Funds may be released on receipt of Project Installation Reports in prescribed formats on SPIN portal.
- iv. MNRE will release eligible incentive to the DISCOMs based on their performance in the last financial year.
- v. MNRE will do the physical sample inspection of the installed RTS plants for which CFA or Incentive has been claimed by the DISCOMs. Sample inspection may be done by the officials of MNRE or any other designed Central Government agency.
- vi. To provide necessary assistance to DISCOMs in respect of Portal development and its integration with SPIN portal of MNRE, capacity building of DISCOM officials, updation of billing software, etc., if so, required by them.
- vii. Undertake capacity building and public awareness campaigns through print and electronic media.

8.2 DISCOMs:

- i. Create a RTS cell at each Division level headed by the Executive Engineer and the respective Sub-Divisional Officer shall act as nodal officer for implementation of RTS projects in his operational area.



- ii. Develop dedicated online portal for grid connected RTS projects. This portal shall be integrated with MNRE SPIN portal for which assistance may be provided by MNRE to respective DISCOMs.
- iii. Empanelment of agencies for design, supply, installation, testing & commissioning of RTS system in residential premises lying under their jurisdiction as described in Paragraph 5.1.6 above by floating of Expression of Interest either itself or through a designated agency
- iv. Notify time bound procedure for implementation of the programme.
- v. Notify cost of metering arrangements, related connectivity components and other charges and ensure availability of appropriate meters.
- vi. No CEIG inspection is required for RTS plants up to 500 kVA capacity.
- vii. Undertake capacity building programs for DISCOM officers for RTS projects on regular basis.
- viii. Undertake consumer awareness campaigns through print and electronic media, developed guidebook/handbook.
- ix. Inclusion of appropriate metering settlement in ERP system and billing software.
- x. Develop time bound grievance redressal mechanism.
- xi. Submit the cumulative capacity of grid connected RTS plants (in MWp) installed in their distribution area first time as on 31st March 2019 and thereafter on 31st March every year for calculating the applicable incentive payable to them by MNRE.
- xii. DISCOM will take utmost care so that there is minimum loss of solar power due to grid failure during daytime or from any other reasons within their jurisdiction.
- xiii. The project commissioning timeline for the residential sector shall be fifteen months from the date of sanction from MNRE. For this, the implementing agencies may specify a cut-off date after which no project would be allocated so as to allow sufficient time for completion of already allocated projects. Benchmark cost prevailing at the time of commissioning of the project shall be applicable for calculation of CFA. The implementing agencies shall inform MNRE regarding capacity commissioned within stipulated timeline and submit documents to the Ministry within 45 days of completion of project time line. After 45 days, deduction of service charges at the rate of Rs. 1000/- per day would be levied on the project. In case the submission of project documents is delayed by more than 90 days from the date of completion timeline/last day of financial year, no service charges would be provided for the said project.

8.3 Empaneled Vendors for supply and installation of RTS projects

- i. Install RTS plant within the timeframe decided by the DISCOMs.
- ii. For projects covered under CFA, only indigenously manufactured PV panels (both cells and modules) should be used.
- iii. Vendors for supply and installation of the RTS shall establish a service centre in each District. In case if it is not economically viable for an individual vendor then Group of vendors can establish service centre in each District. Their contact details will be made available on the website of the DISCOMs.
- iv. These service centres have to provide services to the RTS owners within the timelines decided by the DISCOMs, free of cost for first five years (Warranty period) of commissioning of the RTS. Non-performing/Under-performing PV Panels will be replaced free of cost in the warranty period. Non-compliance of the service standards by the vendor will make it ineligible for future work orders by the Government.



9. Business models

Various business models in accordance with the prevailing legal framework are covered under the programme such as CAPEX, RESCO, rent a roof/lease model, community model, utility model, through a SPV having share of Utility, plug-in RTS model and any other model as specified by respective State Govt. Policy/Regulations. RTS systems with or without battery storage are covered under the programme.

In addition, hybrid systems, e.g., solar rooftop PV- wind hybrid, solar rooftop PV- solar thermal hybrid, solar rooftop PV- biomass hybrid etc. are also covered for which the capacity of the PV modules installed on rooftop of buildings within the campus will be considered for CFA/incentive calculations. However, this won't be applicable for cases wherein the developer/implementing agency has availed the CFA for solar module from the other components viz. wind, biomass etc.

10. Capacity building/awareness activities:

An amount of Rs. 66 Crore (i.e. 1 % of the amount allocated for CFA sector) has been allocated under the programme for capacity building /awareness activities. This fund will be retained by MNRE for promoting capacity building activities. These activities can be implemented directly by MNRE and/or in coordination with implementing agencies. The implementing agency (DISCOM) will submit detailed proposal /communication plans towards various activities for conducting such capacity building/awareness activities for consumers. Funds will be released in three phases, i.e., up to 40 % in advance and balance up to 60 % after completion of the activities, submission of activity reports, utilization certificates and audited statement of expenditure. DISCOM may be at liberty to use the existing infrastructure of State Nodal Agencies of Renewable Energy of the respective States/UTs (SNAs) for the same. The admissible CFA for conducting the capacity building programme e.g. National, International or State level by the implementing agency may be restricted as per the norms set by the I&PA/HRD Division. Any advance to private DISCOM will be released after submission of bank guarantee of requisite amount.

11. Service charges:

An amount of Rs. 198 Crore (i.e. 3 % of the amount allocated for CFA sector) has been allocated under the programme towards the service charges of the programme. The service charges will essentially cover but not be limited to the following: -

- demand aggregation activities,
- creation of working RTS cell in DISCOM
- bid process management
- implementation
- availability and streamlining the process of net-metering /billing
- inspection, monitoring, development of online portal
- training of DISCOM officials
- awareness programs for proliferation of rooftop solar PV projects
- creation and operating project management cell in MNRE etc.

DISCOMs may also utilize existing infrastructure of SNAs or may also implement the program through SNAs. In such cases, service charges may be appropriately divided between



the two agencies. However, projects would be sanctioned to DISCOMs only and SNA would be acting as the supporting agencies for DISCOMs. This service charge may also be used for 3rd party verification of the projects by MNRE or its designated agency (say State Nodal Agencies/ Govt. departments/PSUs/DISCOMs etc.) wherever required.

12. Pattern of release of CFA/incentives: -

	Advance	2nd instalment	3rd Instalment
Release of CFA in residential sector	30 % of CFA* After issuance of work order /empanelment of system integrators	30 % of CFA* after completion of 30% of the sanctioned capacity, submission of online project completion report and utilisation certificates etc.	Balance 40 % after completion of the sanctioned capacity in the sanctioned timeline, submission of online PCR, UC, Audited SoE, Project Completion Certificates etc.
Incentives	Eligible incentives after submission of achievement details, i.e. Cumulative achievement (in MW) in the preceding FY ending Capacity of the RTS system installed the FY 2019-20,2020-21, 2021-2022 along with list of projects in SPIN portal along with Undertaking on project completion and sample inspection by 3 rd party		

* CFA will be calculated @ 20% of benchmark cost or cost discovered through tender whichever is lower for the purpose of advance to DISCOMs

13. Suggestive expectation from State Governments

- RTS capacity be permitted up to 100% of connected load
- Distribution Transfer (DT) capacity be increased to avoid denial of permission for setting up RTS on this ground
- Mandating installation of rooftop solar projects on Government buildings and new residential buildings
- Banking of solar power may be permitted for 12 months without any banking charges
- Monitoring of sanctioned RTS capacity and expedite commissioning of the allotted capacity
- Timely and correctly submission of project proposals and project commissioning reports for timely release of funds

14. Interpretation of the Guidelines

14.1 In case of any ambiguity in interpretation of any of the provisions of these Guidelines, the decision of MNRE shall be final.

14.2 The Guidelines may be reviewed from time to time based on the experience gained from the implementation of the programme and necessary modifications would be incorporated after getting approval of Minister, NRE.



Annexure

**Suggestive Operating Procedures for Installation and Metering Connection of Grid
Connected Solar Rooftop PV Systems by DISCOMs**

ACTIVITY	RESPONSIBILITY	TIMELINE (Max Working Days)
Submission of Application	CONSUMER	Zero Date
Acknowledgment of Application by DISCOM	DISCOM	02
Site Verification / Technical Feasibility & issuance of Letter of Approval (LOA) / Termination ^[1]	DISCOM	15
In-Principle Approval for CFA	DISCOM	10
Execution of Metering Agreement	DISCOM & CONSUMER	15 – 20
Installation of Rooftop Solar System	DISCOM, Empaneled Vendor & CONSUMER	90 - 180
Meter Procurement Intimation	CONSUMER	15 (prior intimating DISCOM on system readiness)
Submit Work Completion Report / Certificate	CONSUMER & Empaneled Vendor	90 – 180 (from LOA) (depending upon capacity)
Inspection by CEIG (if applicable)	CEIG	15 -20
Issuance of Safety Certificate	CEIG (if applicable)	5 – 10
Intimation to Install Meter	CONSUMER	7 - 10
Inspection by DISCOM, Installation of Meter ^[2] and Commissioning of the System	DISCOM ^[3]	15 – 20 (after CEIG approval)
Inspection for Release of CFA ^[4]	DISCOM	7 -10
Release of CFA	DISCOM	5 -10
Billing Process	DISCOM	30 After synchronization with Grid

^[1] DISCOM to communicate to deficiencies to Consumer and provide an opportunity to resolve them

^[2] DISCOM may provide a window of 15 days for Consumer to resolve deficiencies found during inspection

^[3] Joint Inspection by CEIG (if applicable) and DISCOM can reduce the timelines substantially. If DISCOM has no stock of meters, Consumer will purchase the same upon intimation by DISCOM. Inspection dates to be provided within 7 days by CEIG (if applicable) and DISCOM from the date of receipt of request for inspection sent by Consumer

^[4] Joint Inspection by CEIG (if applicable) and DISCOM can reduce the timelines substantially



Annexure-19

Mandate Form

1.	Beneficiary Name	MD, RRECL, JAIPUR
2.	Beneficiary Postal Address	E-166 Yudhishtir Marg, C-Scheme, Jaipur
3.	Name of the Bank	Oriental Bank of Commerce
4.	Branch Name & Address	Pant Krishi Bhawan, Jaipur
5.	Branch Code No.	1133
6.	Branch Telephone No.	0141-2227521
7.	Branch E-mail	bm1133@obc.co.in
8.	9 Digit MICR Code Number of the Bank and Branch appearing on the MICR Cheque issued by the Bank	302022013
9.	IFS Code	ORBC0101133
10.	Type of Account (Current/Saving)	Current A/c
11.	Account Number (as appear in cheque book)	11331010000180



ANNEXURE-20

AREA COVERED UNDER VARIOUS DISCOMS

List of Districts in Discoms

S. No.	Jaipur Vidyut Vitran Nigam Limited	Ajmer Vidyut Vitran Nigam Limited	Jodhpur Vidyut Vitran Nigam Limited
	Lot-I	Lot-II	Lot-III
1	Jaipur	Ajmer	Jodhpur
2	Kota	Bhilwara	Pali
3	Bharatpur	Nagaur	Sirohi
4	Alwar	Jhunjhunu	Bikaner
5	Dausa	Sikar	Hanumangarh
6	Sawai Madhopur	Udaipur	Sri Ganganagar
7	Jhalawar	Rajsamand	Barmer
8	Tonk	Chittorgarh	Jalore
9	Karauli	Pratapgarh	Jaisalmer
10	Dholpur	Dungarpur	Churu
11	Bundi	Banswara	
12	Baran		

