

WEST BENGAL RENEWABLE ENERGY DEVELOPMENT AGENCY

NOTICE INVITING TENDER

NieT No.WBREDA /NieT-17/23-24

Dated: 15.09.2023

National Competitive Bidding

Design & Engineering, Manufacture / Procurement, Testing, Supply, Installation and Commissioning of Roof Top Grid Connected Solar PV Power Plants each of array capacity ranging from & above 20 kWp to 90 kWp cumulative array capacity:1 MWp including five (5) years Comprehensive Maintenance on turnkey basis at various locations of West Bengal

Bidding Document



September, 2023

West Bengal Renewable Energy Development Agency (WBREDA)
Department of NRES, Government of West Bengal
Bikalpa Shakti Bhavan,J1/10, EP&GP Block,
Sector- V, Salt Lake, Electronics Complex, Kolkata- 700091

Website: www.wbreda.org Email: wbreda1993@gmail.com

These documents are meant for the exclusive purpose of bidding against this NieT and shall not be transferred, reproduced or otherwise used for purposes other than that for which they are specially issued.

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West Bengal Renewable Energy Development Agency
Department of Non-Conventional & Renewable Energy Sources, Government of West Bengal
BIKALPA SHAKTI BHAVAN, Plot – J1/10, Block – EP & GP,
Sector – V, Salt Lake City, Kolkata – 700 091

ABRIDGED NOTICE INVITING e-TENDER

Domestic Competitive Bidding

NIeT No: WBREDA /NIeT-17/23-24

Dated: 15.09.2023

WBREDA invites e-tender from resourceful, reputed, eligible, competent and established Design & Engineering, Manufacture / Procurement, Testing, Supply, Installation and Commissioning of Roof Top Grid Connected Solar PV Power Plants each of array capacity ranging from and above 20 kWp to 90 kWp cumulative array capacity :1 MWp including five (5) years Comprehensive Maintenance on turnkey basis at various locations of West Bengal.

Interested bidders may obtain bidding documents by registering themselves to the e-tendering portal <https://wbtenders.gov.in> and thereby downloading the bidding documents from **05 P.M. on 22.09.2023.**The last date of submission of Bid is **13.10.2023 up to 005P.M.**

Sd/-
Superintending Engineer

**WEST BENGAL RENEWABLE ENERGY DEVELOPMENT
AGENCY(WBREDA)**

**Department of Non-conventional & Renewable Energy Sources, Govt.
of West Bengal**

Bikalpa Shakti Bhavan, J1/10, EP & GP Block,
Sector-V, Salt Lake Electronics Complex, Kolkata-700091

NieT No.WBREDA /NieT-17/23-24

Dated: 15.09.2023

National Competitive Bidding

Detailed Notice Inviting e- Tender:

“Design & Engineering, Manufacture / Procurement, Testing, Supply, Installation and Commissioning of Roof Top Grid Connected Solar PV Power Plants each of array capacity ranging from above 20 kWp to 90 kWp cumulative array capacity:1 MWp including five (5) years Comprehensive Maintenance on turnkey basis at various locations of West Bengal The NieT can be accessed from WBREDA website [www.wbreda.org] and can be downloaded from <http://wbtenders.gov.in> portal **05 P.M. on 22.09.2023**.The last date of submission of Bid is **13.10.2023 up to 005P.M.**

NieT No.WBREDA /NieT-17/23-24

Dated: 15.09.2023

1.0 West Bengal Renewable Energy Development Agency herein referred to as **WBREDA** invites e-tender (Submission of Bid through **online**) through National Competitive Bidding (NCB) from eligible bidders for following work:-

Name of the Work:

“Design & Engineering, Manufacture / Procurement, Testing, Supply, Installation and Commissioning of Roof Top Grid Connected Solar PV Power Plants each of array capacity ranging from above 20 kWp to 90 kWp cumulative array capacity:1 MWp including five (5) years Comprehensive Maintenance on turnkey basis at various locations of West Bengal

2.0 Estimated Cost of the Project: Total Rs. 68280000/- (Rupees Six Crore Eighty Two Lakh Eighty Thousand Only).

3.0 Cost of Tender document is Rs.10,000/- (Rupees Ten thousand only). The cost of tender document is non-refundable. The tender fee may be remitted online through <http://wbtenders.gov.in> portal.

4.0 Bid Security(Earnest Money Deposit (EMD)) :

The Bid Security / EMD amount is **Rs. 1365600/- (Rupees Thirteen Lakh Sixty Five Thousand Six Hundred Only)**. Necessary Earnest Money (EMD) may be remitted online through <http://wbtenders.gov.in> portal.

5.0 **Variation, Additions and Omissions**

WBREDA reserves the right to alter, amend, omit or otherwise vary the allotment quantities of power plant as may be necessary but such variation will be limited to +/- 25% (plus or minus twenty five percent) of the original order. The decision of the controlling officer/ Engineer-in-Charge will be final in this regard. Payment shall however be made as per actual execution of work

6.0 **Schedule of Dates for e-Tendering:**

SL. NO.	PARTICULARS	DATE & TIME
1.	Date of uploading of N.I.T. Documents (Online)	15.09.2023
2.	Documents download start date (Online)	22/09/2023 from 2.00 P.M
3.	Last date of uploading Pre-bid Query	27/09/2023 up to 2.00 P.M.
4.	Pre- bid Meeting	29/09/2023 at 3.00PM
5.	Last date for uploading of reply of pre-bid Query	03/10/2023 at 4PM
6.	Bid proposal submission start date (Online)	03/10/2023 at 4:30 P.M
7.	Bid proposal Submission end date (Online)	13/10/2023 up to 5.00P.M
8.	Bid opening date for Technical proposal (Online)	16/10/2023 at 12 noon
9.	Date of Opening of financial bid	Will be intimated later

7.0 In the event of e-filling, intending bidder may download the tender documents from the website <http://wbtenders.gov.in> directly with the help of Digital Signature Certificate. Necessary cost of tender documents (tender fees) amounting to **Rs.10,000/- (Rupees Ten thousand only)**. may be remitted online mode through <http://wbtenders.gov.in> portal.

8.0 : The Bid Security / EMD is **Rs. Rs. 1365600/-(Rupees Thirteen Lakh Sixty Five Thousand Six Hundred Only)**. Necessary Earnest Money (EMD) may be remitted online through <http://wbtenders.gov.in> portal.

9.0 The successful bidder have to be submit Additional Performance Security @ 3% of the tendered value, if the bid value stands 80% or less of the estimated cost put to the tender.

10.0 **Qualifying Requirement for Bidders:**

The Bidder must have to meet the following conditions for participation of bidding:

10.1 **General:**

The Bidder, who intends to participate in the Bid, must have to meet the following

Criteria:

a) The Bidder shall be a Registered Company/Firm/Proprietorship incorporated in India under the Companies Act, 1956 or 2013/Indian Partnership Act, 1932/LLP Act, 2008 including any amendment thereto.

b) Bidder must meet the eligibility criteria independently as Bidding Company or as a Bidding Consortium.

If the Bidder is a **Bidding Consortium** then-

- i. Maximum **four** members' consortium will be allowed.
- ii. All of the members of Bidding Consortium must be registered in India.
- iii. The Bid should contain the information required for each member of the Consortium;
- iv. Members of the Consortium shall nominate one member as the lead member (the "**Lead Member**"). The nomination(s) shall be supported by a Power of Attorney, as per the format **Form-10** given in this NIEt, signed by all the members of the Consortium. The Lead Member shall incur liabilities and to receive instructions and payments for and on behalf of the Consortium. The Lead Member shall have main responsibility pertaining to execution of Project.
- v. The Lead Member shall be responsible for entire job. The Lead Member will fix the role and responsibility of each of the member of the consortium. At the time of acceptance of LoA, an agreement contains above should be there. Any deviation from the above said agreement till defect liability period will be treated as breach of contract and it may lead towards loss of eligibility of the bidder. It may results termination of contract on part of WBREDA.
- vi. Lead Member of the Consortium shall meet the Financial Criteria and other partners of the Consortium shall meet technical criteria. Lead Member shall be solely responsible for timely completion of the project in all respect

vii. The Lead Member of the Bidding Consortium after the award and signing of the Contract Agreement shall be obliged to continue to discharge their responsibility of the consortium for a period covering the entire project completion period including five (5) years of the comprehensive Maintenance period of the project. The Maintenance period shall be deemed to be effective from the date of commissioning of the power plant.

viii. An individual Bidder cannot at the same time be a member of a Consortium applying for the bid. Further, a member of a particular Bidder Consortium cannot be member of any other Bidder Consortium applying for the same bid.

ix. No Change in the composition of the Consortium will be permitted during the Selection Process and during the subsistence of the Contract (in case the successful Bidder is a consortium).

x. Members of the Consortium shall enter into an Agreement (herein after called as **Consortium Agreement**), for the purpose of submitting a Bid. The **Consortium Agreement**, to be submitted along with the Bid as per format **Form-11** of the NIEt.

- i) Bidders shall have to submit the Audited Annual Accounts for the financial years 2020-21 2021-22, 2022-23
- ii) The bidder shall have valid GST IN, Professional Tax, Trade License (if applicable) proof of registration document(s).

10.2 Financial Capability:

The Bidder, who intends to participate in the Bid, must have to meet the following criteria:

- a) Minimum Average Annual Turnover (MAAT) of the Bidder for best 3 (three) financial years out of the last 5(five) financial years shall at least **Rs. 2.04 Crore** (Rupees One Crore, Eighty Seven lacs only).(30% of the Estimated Cost) Separate Certificate of Auditor has to be submitted in this regard.
- b) Liquid Asset ** of the Bidder shall be at least **Rs. 0.68 Crore** (Rupees Zero Pont Six Two crore only). Bidder shall have liquid assets or/and evidence of access to or availability of credit facilities to make good the shortfall in liquid asset, if any.
- c) Net Worth should be positive.

10.3 Technical Capability

The Bidder, who intends to participate in the Bid, must have to meet the following criteria:

The Bidder shall have experience in Supply, Installation & Commissioning of ground mounted and/or rooftop Solar PV Power plants, Solar Pumps under order/ fund of any Govt. Institution/SNA/PSU/ Pvt. DISCOM having cumulative capacity of not less

than 800 KWp (for one number of job each) 600 Kwp for (two no of job each) 400 Kwp (for three no of job each) which should have been commissioned before the date of issuance of NIeT (Solar PV HLS, SLS, High Mast will not be considered). Order copy and completion certificates are to be furnished in this regard.WBREDA may verify the authentication of such installation through RMS or site verification at its own cost.The Eligibility Criteria, as mentioned here is final and if any other point anywhere in the Tender Document will be have any verification /differences in this respect, Those are to be ignored.

11.0 Completion time:

Completion period for the project are as follows:

Work Volume	Completion Time (site survey to completion of installation in all respect.) from the date of placement of LoA along with list of sites
Cumulative Capacity 1MWp	400 Days

For other quantities, completion time will be in proportion of above. In case of providing new list of sites after LoA (with first list of sites), Zero Date for new set of sites will be calculated from that date of providing new set of sites.

12.0 Validity of offer:

Validity of the offer shall be 180 days from the date of opening of the financial bid. However, it may be extended with consent from the successful bidder(s).

13.0 WBREDA is not bound to accept the lowest tender. WBREDA reserves the right to accept or reject any bid partly or fully or cancel the bidding without assigning any reason thereof and in such case no bidder/ intending bidder shall have any claim arising out of such action.

** **Liquid Asset(LA)** : ‘ Liquid Asset ‘ shall mean cash and bank balances and fixed deposits in the name of the bidder as certified by a Chartered Accountant on a date not more than one month before the bid submission date.

14.0 If the offer is submitted without or inadequate Earnest Money (Bid Security),the bid will not be opened. Incomplete offer will be liable for rejection.

15.0 A prospective bidder requiring any clarification on bidding documents may notify the WBREDA by uploading the same in the e-tendering portal, which shall be available to all the participant bidders, as per Standard Format. The soft copy of the same must be sent in Excel format at the mail address: akd.wbreda@gmail.com / wbreda1993@gmail.com

16.0 Any evidence of unfair Trade Practices including overcharging, price fixing, cartel etc. as defined in various statutes, will automatically disqualify the bidders.

17.0 The Tender Inviting Authority reserves the right to modify, amend or supplement the Tender Document. Any corrigendum, notification concerned to this tender will be published in the e- tender portal <https://wbtenders.gov.in> only and it will be part &

parcel of the tender. The bidders are therefore advised to follow the website for such corrigendum, notification etc.

18.0 **Technical Specification:** All the Technical Specifications are as per the Technical Specification of this NIE T (**Section VI**).

19.0 Other information as well as terms and conditions, which are not covered in the NIE T, have been incorporated in **Instructions to Bidders (Section II)**, General Condition of Contract (**Section III**) and **Special Conditions of Contract (Section IV)**, **Technical specification (Section-VI)** of this tender.

22.0 Address for Communication

The Superintending Engineer,

West Bengal Renewable Energy Development Agency [WBREDA]

Bikalpa Shakti Bhavan, J1/10, EP&GP Block,

Sector– V, Salt Lake Electronics Complex, Kolkata– 700091 Website :

www.wbreda.org

Contact No. +9133-2357-5038/5348/6361,

E-mail : akd.wbreda@gmail.com / wbreda1993@gmail.com

Sd/-
Superintending Engineer, WBREDA

Section - II

Instruction to the Bidder

NIEt No: WBREDA /NIEt-17/23-24 Dated: 15.09.2023

A. Introduction	
ITB. 1.0	<u>Name of the Work:</u> “Design & Engineering, Manufacture / Procurement, Testing, Supply, Installation and Commissioning of Roof Top Grid Connected Solar PV Power Plants each of array capacity ranging from above 20 kWp to 90 kWp cumulative array capacity:1 MWp including five (5) years Comprehensive Maintenance on turnkey basis at various locations of West Bengal
ITB. 1.1	<u>Quantity to be quoted by the bidder :</u> Bidders shall have to quote for fixed quantity of 10 numbers of Power Plants.
ITB. 2.0	<u>Brief Scope of work</u> The scope of work shall be on the basis of single source responsibility, completely covering all the Equipment/Material specified under the Technical Specifications. It will include, but not limited to the following: a. Physical site survey, shadow analysis through appropriate software, PV Array Layout using Auto Cad or appropriate software. b. Detailed design of the Equipment/ Materials. c. Complete manufacture including testing. d. Providing engineering drawing, data, operational manual, etc. for the Purchaser’s approval. e. Packing, forwarding, transportation and insurance of Equipment/ Material from the manufacturer’s works to the site. f. Receipt, storage, preservation, insurance and conservation of Equipment/ Material at the site. g. Reliability tests, performance and guarantee tests, wherever applicable, on completion of commissioning. h. Erection, testing, commissioning and insurance of all the Equipment / Materials.
ITB. 3.0	<u>Responsibility of bidders</u>
ITB. 3.1	The WBREDA will not assume any responsibility regarding information gathered, interpretations or conclusions made by the bidder or regarding information, interpretations or deductions the bidder may derive from the data furnished by the WBREDA . Verbal agreement or conversation with any employee of the WBREDA either before or after the submission of bid shall not affect or modify any of the terms or obligations contained herein.
ITB. 3.2	It shall be the sole responsibility of bidders to determine and to satisfy themselves by such means as they consider necessary or desirable as to all matters pertaining to this bidding process including in particular all factors that may affect the bid price and period of supply of Equipment / Materials.
ITB. 3.3	It must be understood and agreed by the bidders that factors which may affect the cost, duration and execution of the Works have properly been investigated and considered

	while submitting the bid. Claims whatsoever including those for financial adjustment in the price of the Contract awarded in accordance with these bidding documents will not be entertained by the Purchaser. Neither any change in time schedule of Contract nor any financial adjustments arising thereof shall be permitted by the Purchaser, which are based on the lack of investigation or its effect on the cost of the Contract to the bidder.			
ITB. 4.0	Cost of bidding The bidder shall bear all costs associated with the preparation and submission of his bid and WBREDA in no case shall be responsible or liable for these costs, regardless of the conduct or outcome of the bidding process.			
B. The Bidding Documents				
ITB. 5.0	Contents of bidding documents			
ITB. 5.1	The scope of work, bidding procedures, Contract terms and conditions and technical specifications are prescribed in the bidding documents. The set of bidding documents uploaded for the purpose of bidding includes the sections stated below together with any addendum/amendment to be issued in accordance with ITB. 9			
ITB. 5.2	Volume-I	Section I	:	Notice Inviting Tender
		Section II	:	Instructions To Bidders
		Section III	:	General Conditions of Contract
		Section IV	:	Special Conditions of Contract
		Section V-A	:	Forms <i>(Bid Form & Attachments)</i>
			1	Check List
			2	Bid Form
			3	Performa For Undertaking To BeSubmitted By The Bidder
			4	Bid Security (Bank Guarantee format)
			5A	Summary Statement of Yearly TurnoverAnd Net Worth ((Duly certified by the CA) working capital would be 35% of the quoted amount.
			5B	Capability Status (Duly certified by the CA) be submitted
			5C	Bid Capacity (Duly certified by the CA) be submitted) to be equal or greater than quoted amount.
			6	Statement Of Similar Type of Order Orders Executed as on date of issuance of NIeT
			7	Curriculum Vitae of Key Personnel
			8	Format For Submission of Pre-BidQueries
			9	Format for Proposed modifications
			10	Bid Consortium Agreement

			11	Power of Attorney for Consortium member
		Section V-B	Annexures	
			1 & 2	Letter of Award of Contract
			3	Proforma Of Contract Agreement
			4	Proforma Of Bank Guarantee For Contract Performance
			5	Proforma For Extension Of Bank Guarantee
			6	Proforma Of Indemnity Bond
			7	Proforma Of Additional Bank Guarantee For Contract Performance
		Section VI	Technical Specification	
		Section VII	Drawings	
ITB.7.0	<u>Clarifications on bidding documents:</u>			
ITB.7.1	<p>A prospective bidder requiring any clarification on bidding documents may notify WBREDA by uploading the same in the e-tendering portal, which shall be available to all the participant bidders, as per Standard Format enclosed with this document Form 8 and Form 9 not later than the date and time specified in NIeT. The soft copy of the same must be sent in Excel format at the mail address :sewbreda2021@gmail.com</p> <p>The WBREDA will issue clarification(s) as he may think fit after pre-bid meeting prior to the deadline/ extended deadline for submission of bids prescribed by the WBREDA. Written copies of the WBREDA's response (including an explanation of the query but without identifying its source) will be uploaded in the e-tendering portal in the corrigendum folder which shall be available to all the participant bidders All such clarifications shall form part of the bidding documents and shall accompany the bidder's Proposal.</p> <p>The WBREDA will issue clarification(s) as WBREDA may think fit not later than ten (10) days prior to the deadline/ extended deadline for submission of bids prescribed by the WBREDA. All such clarifications shall form part of the bidding documents and shall accompany the bidder's Proposal. Written copies of the WBREDA's response (including an explanation of the query but without identifying its source) will be uploaded in the e-tendering portal in the corrigendum folder which shall be available to all the participant bidders</p>			
ITB.7.2	Any queries sent by the bidders after the date and time notified in NIeT or any extended date, if any, shall not be entertained.			

ITB.8.0	<u>Pre-bid meeting</u>
ITB.8.1	The bidder or its authorized representative is invited to attend pre-bid meeting to be held on the date, time and location specified in NIeT. The purpose of the meeting will be to clarify the exact scope of work, and any issues regarding the bidding documents and the technical specifications for its clarification, if raised at that stage by the bidders. The Purchaser shall not be under any obligation to entertain /respond to suggestions made or to incorporate modifications sought for by the prospective bidders. The meeting will be in virtual mode. The link will be given at WBREDA website (www.wbreda.org), one day prior to the meeting.
ITB.8.2	Any modification/amendment of the bidding documents shall be made by the Purchaser exclusively through the issue of an amendment pursuant to ITB. 9
ITB.8.3	Non-attendance at the pre-bid meeting will not be a cause for disqualification of bidders but at the same time shall not entitle them to raise any query at a later date.
ITB.8.4	Any essential requirement not included in the Price Schedules but required for successful commissioning and operation of Works as per scope of Contract shall be indicated by the bidders as per Form: 9 shall be submitted before the pre-bid meeting by the date specified in the NIeT in line with ITB.7.1 . The Purchaser shall make related modifications/ amendments as may be considered necessary based on this form in the bidding documents as per provisions mentioned in this clause.
ITB.8.5	Place of pre-bid meeting: The meeting will be in virtual mode. The link will be given at WBREDA website (www.wbreda.org), one day prior to the meeting.
ITB.9.0	<u>Amendment of bidding documents</u>
ITB.9.1	At any time, but not later than ten (10) days prior to the deadline for submission of bids, the WBREDA may, for any reason, modify the bidding documents by issue of an addendum/amendment.
ITB.9.2	The addendum/amendment will be intimated (through e-tendering portal, corrigendum folder) to all bidders. WBREDA shall assume that the information contained therein have been taken into account by the bidder in its bid. The WBREDA will bear no responsibility or liability arising out of non- cognizance of the same in time or otherwise by the bidder. WBREDA may, at its discretion, extend the deadline for the submission of bids.
ITB.9.3	In order to afford prospective bidders reasonable time in which to take the addendum/amendment into account in preparing their bids, WBREDA may, at its discretion, extend the deadline for the submission of bids.
ITB.9.4	For the information of bidders, the addendum/ amendments, if any, shall be uploaded on the e-tendering portal. The bidders may visit the website https://wbtenders.gov.in from time to time in their own interest.
C. Preparation and Submission of Bid	
ITB.10.0	<u>General guidance for e- Tender</u> Instructions/Guidelines for electronic submission of the tenders have been mentioned below for assisting the bidders to participate in e-Tendering

ITB. 10.1	<p><u>Registration of Bidder:</u> Any bidder willing to take part in the process of e-Tendering will have to be enrolled & registered with the Government e-Procurement System, by logging on to https://wbtenders.gov.in The contractor is to click on the link for e-Tendering site as given on the web portal.</p>
ITB. 10.2	<p><u>Digital Signature certificate (DSC):</u> Each bidder is required to obtain a Class-II or Class-III Digital Signature Certificate (DSC) for submission of tenders from the approved service provider of the National Informatics Centre (NIC) on payment of requisite amount. Details are available at the Web Site stated above. DSC is given as a USB e-Token.</p>
ITB. 10.3	<p>The bidder can search & download NIE.T. & Bid Document(s) electronically From computer once he logs on to the website mentioned above using the Digital Signature Certificate. This is the only mode of collection of Bid Documents.</p>
ITB.10.4	<p><u>Price Schedule (BOO)</u> The BOQ is in form of Excel file.</p>
ITB. 10.5	<p>The bidder is expected to examine all instructions, forms, terms, conditions, Specifications and other information in the bidding documents. Failure to furnish all information required as per the bidding documents or uploading of a bid not substantially responsive to the bidding documents in every respect will be at the bidder's risk and may result in rejection of his bid.</p>
ITB. 10.6	<p><u>Participation in more than one work:</u> A prospective bidder shall be allowed to participate in the job either in the capacity of individual or as a partner of a firm. If found to have applied severally in a single job all his applications will be rejected for that job.</p>
ITB.11.0	<p><u>Submission of Bid:</u> Tenders are to be submitted through online to the website stated above in two folders at a time for each work, one in Techno-commercial Proposal & the other is Price Proposal before the prescribed date & time using the Digital Signature Certificate (DSC). The documents are to be uploaded virus scanned copy duly Digitally Signed. The documents will get encrypted (transformed into non readable formats).</p>
ITB.11.1	<p><u>Language of the bid</u> The bid prepared by the bidder and all correspondences and documents relating to the bid, exchanged between the bidder and the WBREDA shall be written in the English language, provided that any printed literature furnished by the bidder may be written in another language so long as the bid is accompanied by an English translation of its pertinent passages. Failure to comply with this may disqualify a bid. For purposes of interpretation of the bid, the English translation shall govern.</p>
ITB.11.2	<p><u>General process of submission</u> Tenders are to be submitted online through the website https://wbtenders.gov.in. All the documents uploaded by the Tender Inviting Authority for integral part of the contract. Bidders are required to upload all the Bid Documents the other documents, as asked for in the tender, through the above website within the stipulated date and time as given in the Tender. Tenders are to be submitted in two folders-one is Technical Proposal and the other is Financial Proposal. The bidder shall carefully go through the documents</p>

	<p>and prepare the required documents and upload the scanned documents Format(PDF) to the portal in the designated locations of Technical Bid.</p> <p>The bidder needs to download the Forms / Annexures, fill up the particulars in the designated Cell and upload the same in the designated location of Technical Bid. The bidder needs to download the BOQ, fill up the rates of items in the BOQ in the designated Cell and upload the same in the designated location of Financial Bid.</p> <p>The documents uploaded shall be virus scanned and digitally signed using the Digital Signature Certificate (DSC). The bidders shall take note of all the addendum/corrigendum related to the tender and upload the latest documents as part of the tender.</p>			
ITB.11.3	<p><u>Technical Proposal</u></p> <p>The Technical Proposal shall contain scanned copies and/or declarations in the following standardized formats in two covers(folders).</p> <p>a) Statutory Cover b) Non- Statutory Cover</p>			
ITB.11.3 .1	<p><u>Statutory Cover</u></p>			
	<p>a) <u>To be submitted in“Forms”folder</u></p> <p>i. Check List(<i>VideForm-1</i>), ii. Forwarding Letter for submission of Bid Security and Tender Fee (<i>VideForm-2</i>) iii. Bid Form(<i>VideForm-3</i>), iv. Undertaking to be submitted by the Bidders (<i>VideForm-3A</i>) v. Summary statement of average annual turnover and Working Capital (<i>VideForm-5A</i>) vi. Capability Status(<i>VideForm-5B</i>) vii. <i>Bid Capacity (Form 5C)</i> viii. Statement of Similar Type of Order Orders Executed as on date of issuance of NIeT [Applicability up to the extent of meeting Technical QR]. (<i>Vide Form – 6</i>). ix. Curriculum Vitae of Key Personnel (<i>Vide Form – 7</i>).</p> <p>(Only downloaded copies of the above documents duly filled up and are to be uploaded, virus scanned and digitally signed by the bidder)</p>			
ITB.11.3 .2	<p><u>Non statutory Cover (My Document)</u></p>			
	Sl. No	Category Name	Sub-Category Description	Detail(s)
	A	Certificate(s)	Certificate(s)	<p>1. Copy of GSTIN Certificate</p> <p>2. Copy of the PAN Card</p> <p>3. Proof of PF Registration and ESI Registration</p> <p>4. Valid Trade License</p>
	B	Company Detail(s)	Company Details	<p>5. Copy of the Registration Certificate under Company Act (Company Incorporation Certificate) or copy of the Registered Deed for Partnership Firm or LLP.</p>

	C	Credential	Credential 1	<p>6. Copy of the Order(s)/ Contract Agreement(s) with the Purchaser / any other Proof of Purchase, as primary agency [Applicability up to the extent of meeting Technical QR].</p> <p style="text-align: center;">AND</p> <p>Corresponding Copy of the Completion Certificate(s) /Commissioning report signed by the Purchaser / Ordering Authority to substantiate the proof of completion of the Solar PV Power Plant(s). [Applicability up to the extent of meeting Technical QR].</p>
	D		Credential 2 (Financial)	<p>7. Audit Report along with audited annual accounts for the last three (3) financial years (i.e. for the FY 2017-18, 2018-19 and 2019-20).</p> <p>8. Bank Solvency Certificate.</p>
ITB.11.4	<u>Financial Proposal</u> The financial proposal contain the following Folder: BOQ			
ITB.11.4 .1	<u>BOQ Folder</u> The bidder is to quote the rate through online in the space marked for quoting rate in the BOQ in respective schedule. (Please Consult ITB. 10.4 and ITB 18.0)			
ITB.11.4 .2	<u>Mode Of Transaction Folder : Not Applicable</u>			
ITB.12.0	<u>Submission of Tender Fee and EMD (Bid Security) online</u> Cost of Tender document and EMD may be remitted online through http://wbtenders.gov.in portal.			
ITB.13.0	<u>Clarification of Bidding Documents:</u> To assist in the examination evaluation and comparison of Bids, WBREDA may ask the bidder individually for a clarification of his Bid including breakup of unit rates. The request for clarification and the responses shall be in writing. But no change in the submitted Bid document shall be sought, offered or permitted except as required to confirm the correction of arithmetical errors discovered by WBREDA during the evaluation of the Bids.			
ITB.14.0	<u>Deviation</u> The quoted rate will be unconditional no deviation will be allow in such of quoted rate In case of failure of the contractor for complete delivery of materials at site , within the stipulated time of the tender and LoA and in the meantime the benchmark price is reduced by MNRE, GoI WBREDA may review the contract of price in this regard towards its reduction , if any. The decision of the controlling officer will be the final in this regard.			

ITB.15.0	<u>Conditional and Incomplete Tender:</u> Conditional and/or incomplete tenders are not acceptable.
ITB.16.0	<u>Bid Security / Earnest Money Deposit (EMD):</u>
ITB.16.1	EMD must be submitted online in favour of ‘ West Bengal Renewable Energy Development Agency ’ through http://wbtenders.gov.in portal.
ITB.16.2	Earnest money will be refunded online through NIC e-tender portal to the unsuccessful Bidder after finalization of the tender and incase of successful bidder; EMD will be refunded only after submission of Performance Bank Guarantee as per GCC
ITB.16.3	Earnest Money submitted will be liable to forfeiture, (i) If the successful tender fails to accept Letter of Award/LOI issued within their offered validity period. (ii) For failure to submit specified Performance Bank Guarantee within time limit indicated in the Letter of Award/LOI.
	(iii) Withdrawal of offer after opening of bid. (iv) If any cartel is formed by the Bidder in their quotation.
ITB.16.4	No interest shall be paid by the Purchaser on the bid security
ITB.17.1	<u>Opening of Technical Proposal</u>
	i. Technical proposals for those Bidders, whose EMD(s) have been received, shall only be opened. ii. Technical proposals will be opened by the Tender Inviting Authority or his authorized representative electronically from the website stated above, using their Digital Signature Certificate. iii. Cover (Folder) for Statutory Documents (vide ITB 11.3.1) will be opened first and if found in order, Cover (Folder) for Non-statutory Documents (vide ITB 11.3.2) will be opened. If there is any deficiency in the Statutory Documents, the tender will summarily be rejected. iv. Decrypted (transformed into readable formats) documents of the Statutory and Non-statutory Covers will be downloaded for the purpose of evaluation.
ITB.17.2	<u>Technical Evaluation of Tender</u> a. While evaluation, the Tender Inviting Authority or his authorized representative may summon the bidders and seek clarification /information or additional documents or original hard copy of any of the documents already submitted and if the same cannot be produced within the stipulated time frame, their proposals will be liable for rejection. b. The s u m m a r y l i s t of bidders, whose bids will be found techno-commercially eligible, will be uploaded in the e-Tender Portal and Date of opening of financial bid will be intimated to the techno-commercially qualified bidders.

ITB.17.3	<p><u>Opening and evaluation of Financial Proposal</u></p> <ol style="list-style-type: none"> i. Financial proposals of the bidders declared techno-commercially eligible, will be opened electronically by the Tender Inviting Authority from the e-tender portal stated above on the prescribed date. ii. The encrypted copies will be decrypted and the rates will be readout to the bidders remaining present at that time. iii. After opening of the financial proposal the preliminary summary result containing inter-alia, name of bidders and the rates quoted by them will be uploaded. iv. The Tender Accepting Authority may ask any of the bidder to submit analysis to justify the rate quoted by that bidder. v. Bids determined to be subsequently responsive will be checked by WBREDA for any arithmetic errors in computation and summation. Errors will be corrected by WBREDA as follows: <ol style="list-style-type: none"> a) Where there is discrepancy between amount in figures and in words, the amount in words shall be considered. b) Where there is discrepancy between the unit rate and the total c) amount derived from the multiplication of the unit rate and the quantity, the unit rate as quoted shall be considered.
ITB 17.4	<p>Revision/withdrawal of Financial Proposal by the bidder after opening of Technical Proposal of the tender will not be allowed if it is not sought by the Tender Inviting Authority</p>
ITB 17.5	<p><u>Process to be Confidential</u></p> <p>After the public opening of bids information relating to the examination, clarification, evaluation of comparison of Bids and recommendations concerning the award of contract shall not be disclosed to bidders or other person not officially concerned with such process until the Award of the Contract to the successful bidder has been announced.</p> <p>Any effort by a bidder to influence WBREDA in the process of examination, clarification evaluation and comparison of Bids, and in decisions concerning the Award of contract may result in the rejection of his Bid.</p>
ITB. 18.0	<p><u>Correction of arithmetical errors in price bid</u></p> <p>Arithmetical errors will be corrected at the time of evaluation of Price bid and the corrected figure will be considered as evaluated bid price. The corrections in the bid price shall be done as per the provisions of this clause and shall be binding on the bidder. If the bidder does not accept the correction of errors as per the provisions of this clause, his bid will be rejected and the bid security will be forfeited.</p> <p>If there is a discrepancy between the product of Unit Value of Supply and quantity and the total value of supply, the product of unit price and quantity will prevail and the total value of supply will be corrected. If there is discrepancy between summation of subtotals and total Amount of supply, the summation of subtotal price shall prevail, and the total –Amount of supply shall be corrected. If there is a discrepancy between words and figure, the amount in words will prevail. In case unit Value of Supply or quantity or both are not filled in against any item, it will be treated as zero and will be assumed that</p>

	<p>the Bidder has absorbed the cost elsewhere in the Price Bid.</p> <p>The total Amount of Supply so corrected shall be considered for the purpose of evaluation of bid. However for the purpose of award, the corrected price by the Purchaser or the bid price quoted by the bidder, whichever is lower, will be taken</p> <p>Bidders shall quote the rate of GST/Taxes in force as on seven days prior to the last date of bid submission only in respect of direct transaction between the Vendor and Purchaser. Bids will not be corrected for the rates of taxes - in case of wrong rates considered by the bidder in their bids. Bidders should absorb the monetary loss in wholesome as declared in Bid form.</p> <p>However, Order shall be placed on the lowest quoted Total Amount or Arithmetically Corrected Total Amount, whichever is lower.</p> <p>The rate of GST quoted by the Bidder against any HSN/SAC code shall be deemed final and shall be binding upon the Bidder. The Purchaser shall pay the total landed cost including the GST as quoted in the price bid by the bidder. Any liability on account of GST rate quoted wrongly shall rest on the bidder and purchaser will not be liable. No variation in the rate shall be allowed at the time of billing except for statutory variations.</p> <p>In case of any claim of Statutory Variations, the Vendor must submit documentary evidence for rate quoted in the Bid and also for statutory variations of the rate quoted.</p>
ITB 19.0	<u>Period of validity of bids</u>
ITB.19.1	The bids submitted by the bidder shall remain valid for a period as specified in NIEt.A bid valid for a shorter period than that prescribed in the NIEt shall be rejected by the WBREDA.
ITB.19.2	In exceptional circumstances, WBREDA may solicit the bidder's consent to an extension of bid validity for a further period without any change in the terms and conditions of the offer. The request and response thereto shall be made in writing by post or fax followed by post confirmation. The bidder may refuse the request without having his bid security forfeited. Bidders agreeing to the request will neither be required nor permitted to modify their respective bids, but will be required to extend the validity of their bid securities correspondingly. The provisions of ITB.13.2 regarding discharge and forfeiture of bid security shall continue to apply during the extended period of bid validity.
E. Award of Contract	
ITB. 20.0	<u>Award Criteria</u>
ITB.20.1	The Purchaser will award the Contract to the successful bidder(s) whose bid has been determined to be substantially responsive and has been determined as the lowest evaluated bid provided further that the bidder is determined to be qualified to perform the Contract satisfactorily. The Purchaser shall be the sole judge in this regard.
ITB.20.2	For the purpose of determining the capability and capacity of the bidder to perform the Contract, the Purchaser reserves the right to verify the authenticity of the documents submitted by the bidder for meeting the qualification requirements and may undertake verification of the facilities available with the bidder.

ITB.20.3	The WBREDA reserves the right to split the total quantity among more than one bidder.
ITB.21.0	<u>Letter of Award</u>
ITB.21.1	After approval of bid evaluation by WBREDA, the successful bidder may be invited for pre-award discussions. After pre-award discussions and prior to the expiry of the period of bid validity, WBREDA will notify the successful bidder in writing by registered letter or by fax, that his bid has been accepted. This letter (hereinafter and in the Conditions of Contract called 'Letter of Award' or LoA) shall name the sum which WBREDA will pay to the Contractor in consideration of the execution & completion of the Works by the Contractor as prescribed under the Contract.
ITB.21.2	Within seven (7) working days from the date of the LoA, the successful bidder shall sign and return one (1) photocopy of the same to WBREDA as acknowledgment of acceptance of the same.
ITB.21.3	The LoA will constitute the formation of the Contract as per provisions of tender
ITB.22.0	<u>Signing of Contract Agreement</u>
ITB.22.1	WBREDA will send the successful bidder the Contract Agreement (on judicial stamp paper of appropriate value) as per Annexure: 3 of Section V-B in two (2) copies incorporating all agreements between the parties duly signed by the authorized signatory of the Purchaser along with the LoA.
ITB.22.2	Within ten (10) days from the date of acceptance of LoA, the successful bidder shall sign the Contract Agreement and return two (2) copies to the Purchaser and retain one (1) copy of the same.
ITB.23.0	<u>Misrepresentation by the bidder</u> If the bidder conceals any material information or makes a wrong statement or misrepresents facts or makes a misleading statement in the bid, in any manner whatsoever, in order to create circumstances for the acceptance of the bid, the purchaser reserves the right to reject such bid and/or cancel the LoA, if issued.
ITB.24.0	<u>Return of Earnest Money of the Unsuccessful Bidder(s)</u> For return of the Earnest Money of the unsuccessful Bidder(s), the Earnest Money of all Bidders other than the successful Bidder(s) will be refunded automatically through NIC e-tender Portal.

Section – III

General Condition of Contract

NieT No: WBREDA /NieT-17/23-24 Dated: 15.09.2023

Definition of Terms:

Unless the context otherwise requires, the following terms whenever used in this document have the respective meaning:

- i. The **‘Owner’ /‘Purchaser’/‘WBREDA’** shall mean the “WBREDA”, having its Office at Bikalpa Shakti Bhavan, J1/10, EP& GP Block, Sector V, Salt Lake, Kolkata-700091 and shall include its successors and assigns.
- ii. The **‘Engineer-in-Charge’/ ‘Controlling Officer’** shall mean the Superintending Engineer, WBREDA or his authorised official for the purpose of carrying out this contract.
- iii. **‘WBREDA’s representative’** shall mean any person or persons or consulting firm appointed/authorized by the Superintending Engineer to supervise, inspect, test and examine workmanship and materials of the work under this scope.
- iv. The **‘Contractor’** shall mean the Bidder who will be awarded with the contract by the Company and shall include the contractor’s executor’s administrators, successors and permitted assignees.
- v. The **‘Sub-Contractor’** shall mean any person/agency to whom any part of the contract has been sublet by the contractor with the consent in writing of the Company and will include the legal representatives, successors and permitted assigns of such persons/agency.
- vi. **‘Equipment/materials’** shall mean and include all type of construction equipment & materials etc. required for true and satisfactory completion of the work under this contract.
- vii. **‘Workmanship’** shall mean the method/manner in which the jobs of the different items, whether included in the schedule or not but are required for true & satisfactory completion of the work under this contract, are executed.
- viii. **‘General conditions’** shall mean all the clauses of General conditions of the proposed contract stated hereinafter. The specification shall mean the specification annexed to or issued with the General Conditions and shall include the schedule and drawings attached thereto.
- ix. The term **‘Services’** shall mean all works to be undertaken by the contractor as laid down under the head “scope of work” or elsewhere in the specification enclosed. When the words “approved”, “subject to Approval”.

“As directed”, “Accepted”, “Permitted” etc. are used, the approval, judgment, direction etc. are understood to be a function of Company.

- x. **‘Day’** means a calendar day beginning and ending midnight.
- xi. **‘Month’/‘Calendar month’** means not only the period from the first of a particular month, but also any period between a date in a particular month, and the date previous to the corresponding date in subsequent month unless specifically stated otherwise.
- xii. **‘Week’** means seven consecutive calendar days.
- xiii. **‘Writing’** shall include any manuscript, type written, printed or other statement reproduced in any visible form.
- xiv. The work **‘Site’** shall mean the site of proposed work as detailed in the specification or any other place where the work is to be executed under the contract.
- xv. **‘Date of Contract’/‘Commencement Date’** shall mean the date on which Letter of Award will be issued.
- xvi. **‘Zero Date’** will be started from the date of issuance of Letter of Award.
- xvii. **‘Specifications’** shall mean collectively all the terms and stipulations contained in this document including the conditions of contract, technical provisions and attachments thereto and list of corrections and amendments.
- xviii. **‘Drawings’** means collectively all the accompanying general drawings as well as all detailed drawings, which may be used from time to time or desired by WBREDA.
- xix. **‘Approval’** shall mean the written approval of WBREDA and/the statutory authorities, wherever such authorities are specified by any codes or otherwise.
- xx. **‘Manufacturer’** shall refer to the party proposing to design/engineering and construct in complete or in part a particular job/work at their works/premises.
- xxi. **‘Labour’** shall mean all categories of labour engaged by the Contractor, his sub- contractors and his piece workers for work in connection with the execution of the worked covered by the specifications. All these labourers will be deemed to be employed primarily by the Contractor.
- xxii. **‘Plant’/‘Equipment’/‘Stores’** means and include plant and machineries to be provided under the contract.

‘Delivery of Plant’/‘Delivery of Equipment’ shall be deemed to take place on delivery of the plant/equipment in accordance with the terms of the contract complete in all respect after approval by WBREDA.
- xxiv. **‘Tests on Completion’** shall mean all such tests as are prescribed by the

	<p>specification to be made by the Contractor to the satisfaction of WBREDA before the plant and equipment are taken over by WBREDA and this also includes those tests not specifically mentioned in the specification but required under various BIS codes and relevant Electricity Acts and Rules.</p> <p>xxv. ‘Commissioning’ shall mean the satisfactory, continuous and uninterrupted operation of the equipment/work as specified after all necessary initial tests, checks and adjustments required at site for a period of at least 15 (fifteen) days to the satisfaction of WBREDA.</p> <p>‘Urgent Works’ shall mean any urgent measures, which in opinion of the Engineer-in-Charge, become necessary at the time of execution and/or during the progress of work to obviate any risk of damage to the structure, or required to accelerate the progress of work or which become necessary for security or for any other/reason WBREDA may deem expedient.</p>
<p>GCC.2.0</p>	<p><u>Mode of Execution</u></p> <p>The work will be procured as a complete package. The entire work will have to be executed on turnkey basis. Any minor item(s) not included in the schedule or specification but required for completion of the work will have to be carried out/supplied without any extra cost.</p>
<p>GCC.3.0</p>	<p><u>Equipment and Material</u></p> <p>All materials and equipment will be supplied by the contractor. The supply of materials will also include transportation, loading and unloading at work site Contractor will arrange pilfer proof proper storage at his own cost and risk at site for their equipment and materials. The complete system will be under the custody of the contractor till successful commissioning and handing over, at his own risk and cost. WBREDA in no case will be held responsible for any loss/damage or theft of materials/equipments; so long those will continue to remain under the custody of the contractor.</p> <p>Equipment and material will comply with description, rating, type and size as detailed in this specification. Equipment and materials furnished will be complete and operative in all respect. All accessories, which are necessary for safe and satisfactory installation and operation of the equipment, will be provided by the contractor. All parts will be made accurately to standard gauges so as to facilitate replacement and repair in due course. All corresponding parts of similar equipment must be interchangeable. Contractor will carefully check the available space and the environmental conditions for installation of all equipments at site and will design the system accordingly.</p> <p>Materials brought to the site shall not be removed from the site without the written consent of the WBREDA. The contractor shall submit well in advance for approval of samples, specimens as WBREDA may demand from time to time. Any material brought to the site and rejected by WBREDA shall be removed by the contractor from the site of work immediately.</p> <p>All materials including reinforcing steel, cement for concrete work, sanitary, plumbing & carpentry fittings etc. shall be procured after approval of brand and make by WBREDA</p>
<p>GCC.4.0</p>	<p><u>Tools & Tackles :</u></p> <p>The contractor will provide all reliable tools & tackles for proper execution of work. Purchaser will in no way, be responsible for supply of any tools & tackles for execution of the work.</p>

GCC.5.0	<p><u>Codes and Standards</u></p> <p>All equipment and materials to be furnished under this specification will be designed, manufactured and tested in accordance with the latest revisions of the relevant Indian Standard (IS)/IEC/MNRE as applicable.</p> <p>The electrical installation will meet the requirement of Indian Electricity Act, and Indian Electricity Rules as amended up-to-date and also the applicable section of the latest revision of the relevant IS Code of Practice.</p>
GCC.5.0	<p><u>Codes and Standards</u></p> <p>All equipment and materials to be furnished under this specification will be designed, manufactured and tested in accordance with the latest revisions of the relevant Indian Standard (IS)/IEC/MNRE as applicable.</p> <p>The electrical installation will meet the requirement of Indian Electricity Act, and Indian Electricity Rules as amended up-to-date and also the applicable section of the latest revision of the relevant IS Code of Practice.</p>
GCC.6.0	<p><u>Rules and Regulations</u></p> <p>The Contractor shall obey following conditions strictly:</p> <ol style="list-style-type: none"> a) Employees’ Provident Fund and Miscellaneous Provisions Act,1952 b) Employees State Insurance Act, 1948 or appropriate medical facilities should be strictly adhered to wherever such Acts become applicable. c) Minimum wages to the workers will be paid according to the rates notified and/or revised by the State Government from time to time under the Minimum Wages Act, 1948 in respect of scheduled employments, within the specified time as per law. Payment of bonus, wherever applicable, has to be made
GCC.7.0	<p><u>Safety</u></p>
GCC.7.2	<p><u>Reporting of Accident:</u></p> <p>All accidents, major or minor, must be reported immediately to WBREDA and the contractor will provide first aid to the injured person immediately. The injured person shall report to the First Aid Station along with the ‘ Injured on work ‘form as per appropriate Proforma, duly filled in triplicate and submit to the Medical Officer of the First Aid Station.</p>
GCC.7.3	<p><u>Serious Injuries:</u></p> <p>In case of serious injuries, the following procedure shall be adopted by the contractor.</p> <ol style="list-style-type: none"> a) To provide first aid at his own First Aid Station. b) To take the injured person to the Hospital . c) To report the accident to WBREDA.
GCC.7.4	<p><u>Penalty:</u></p> <p>Failure to observe the Safety Rules will make the contractor liable to penalty by way of suspension of work/termination of contract.</p> <p>Adequate arrangement for proper lighting & guarding shall be made at the work site during the work.</p>

GCC.8.0	<p><u>Statutory Acts:</u></p> <p>The work will be done in compliance with the IS Specification, I.E. Rules, Indian</p>
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	Electricity Acts, other relevant Rules, Act and Regulation now in force with latest amendments, if any.
GCC.9.0	<p><u>Commissioning</u></p> <p>After installation and testing of the equipment/works as per above, commissioning of the power plant and works will be carried out and here the term “Commissioning” will mean the activities of functional testing of the power plant after installation and testing, including tuning or adjustment of the equipment for optimum performance and demonstrating to the Purchaser that the equipment performance meets the requirements of the specifications.</p>
GCC.10.0	<p><u>Road Permits</u></p> <p>The contractor will arrange the waybill if required.</p>
GCC.11.0	<p><u>Controlling Officer’s Decision</u></p> <p>The Superintending Engineer/Engineer-in-Charge decision is final in respect of all matters which are left to the decision of the Controlling Officer including the granting or with-holding of certificates.</p> <p>If, in the opinion of the contractor, a decision made by the Controlling Officer is not in accordance with the meaning and intent of the contract, the contractor or may file with the Controlling Officer, within 07(seven) days after receipt of the decision, a written objection to the decision. Failure to file an objection within the allotted time will be considered as an acceptance of the Controlling Officer’s decision and the decision shall become final and binding.</p>
GCC.12.0	<p><u>Confidentiality</u></p> <p>The Contractor, or any entity affiliated with the Contractor, shall not disclose to any unauthorized person any information and/or data that may be supplied to him/her by WBREDA or by any other organization, under the directions of WBREDA. All such documents shall be the property of WBREDA or any information that may have come to his/her knowledge directly or indirectly by virtue of the assignment.</p>
GCC.13.0	<p><u>Departmental Material</u></p> <p>Departmental material shall not be issued to the contractor for the work except under special circumstances.</p>
GCC.14.0	<p><u>Supplementary/Extra Works</u></p>
GCC.14.1	<p>Whenever supplementary/extra items of work become unavoidable for completion of the work in all respect, the Contractor shall bring the matter to the notice of the Controlling Officer and submit their proposal. However, the controlling officers shall have the right to advise the contractor to proceed with such</p>

	item(s) of work. Rates for supplementary items shall be arrived at as given hereunder.
GCC.14.2	The rates of all supplementary items shall be decided on pro-rata basis from the existing items in the contract.
GCC.14.3	When Clause no: GCC14.1 shall not be applicable, the rates shall be taken from PWD (Govt. of WB) Schedules of rates rate including addendum and corrigendum published upto date of bid opening subject to plus/minus the contractual rate of quotation.
GCC.14.4	When clause no GCC.14.2 &GCC.14.3 above shall not be applicable, the rates should be analyzed, to the mutual acceptance from present market rates of different elements involved in the item, against documentary evidence, with 5% overhead, contractor's profit as 10% and 1% cess towards BOCWWCAAct,1996. In that case contractual rate of quotation will not be applicable.
GCC.14.5	Controlling Officer's/ Engineer- in- Charge's decision regarding finalization of rate of non-scheduled item(s) shall be final and binding up on the contractors
GCC.15.0	<u>Water and Electricity:</u> The arrangement of construction power and water, if required, during execution of the work, will be arranged by the contractor within the contract value.
GCC.16.0	<u>Transportation</u> The Contractor shall at its own risk and expense transport all the Materials, Plant and Equipment and the Contractor's Equipment to the Site by the mode of transport that the Contractor judges most suitable under all the circumstances. Unless otherwise provided in the Contract, the Contractor shall be entitled to select any safe mode of transport operated by any person to carry the Materials, Plant and Equipment and the Contractor's Equipment. The Contractor shall be responsible for obtaining, if necessary, approvals from the authorities for transportation of the Plant and Equipment and t he Contractor's Equipment to the Site. The owner shall use its best endeavors in a timely and expeditious manner to assist the Contractor in obtaining such approvals, if requested by the Contractor. The Contractor shall indemnify and hold harmless the Owner from and against any claim for damage to roads, bridges or any other traffic facilities that may be caused by the transport of the Plant and Equipment and the Contractor's Equipment to the Site.
GCC.17.0	<u>Insurance:</u> The contractor must be responsible for transportation of material, loading and unloading, safe storage at site including its security and will hand over the complete system after commissioning. It is therefore, desired that the contractor shall arrange for insurance coverage for the equipment, accessories, materials etc. to be delivered at site upto one(1)

	<p>month from the date of successful commissioning of the plant. As such the bidder shall consider the price of such insurance in their price bid as part of the price of work.</p> <p>Contractor will be However solely responsible for recovery of any losses or damages or death or injury of their personal or others, if occur, during execution of work irrespective of insurance is done or not by the contractor.</p>
<p>GCC.18.0</p>	<p><u>Accident Risk:</u></p> <p>Purchaser will not be responsible in connection with any sort of accident which may occur during transportation of materials/equipment, execution/ maintenance of works of the PV Power Plant. The Contractor will have to provide safety precautionary arrangement for his workmen in order to avoid any such incident / accident.</p>
<p>GCC.19.0</p>	<p><u>Stoppage of Work :</u></p> <p>Purchaser will neither be responsible nor be liable to bear any compensation for any interruption of work in the site due to war, strike, earthquake, lightning, flood, cyclone etc. Purchaser will also not responsible for any compensation due to stoppage of work as a reaction from the local public due to any undue action on the part of the contractor causing annoyance</p>
<p>GCC.20.0</p>	<p><u>Force Majeure</u></p> <p>Force Majeure means any circumstances beyond the control of the parties, including but not limited to:</p> <ul style="list-style-type: none"> a) War and other hostilities, (whether war be declared or not), invasion, act of foreign enemies, requisition or embargo. b) Rebellion, revolution, insurrection, military power and civil war. c) Riot, commotion or disorder, except where solely restricted to employees of the Contractor or of his sub-contractors. d) Earthquake, flood, cyclone, pandemic, lock down, vacation, election, examination and such other disaster affecting Contractor's work. <p>WBREDA shall neither be responsible nor be liable to bear any compensation for any interruption of work in the site due to force majeure.</p> <p>Upon the occurrence of any situation of Force Majeure, the Contractor shall endeavor to continue to perform his obligations under the Contract so far as reasonably practicable. The Contractor shall notify within a week in written to the controlling officer of the steps he proposes to take including any reasonable alternative means for performance which is not prevented by Force Majeure. The Contractor shall not take any such steps unless directed to do so by the controlling officer.</p> <p>If the Contractor shall fail to complete the works within the time prescribed herein or extended time for completion, then the Contractor shall pay to the Company a sum amounting to half percent (0.50%) of the value of works as</p>

	<p>liquidated damages for such delay for every week or part thereof which shall elapse between the time prescribed or extended time as the case may be and the date of completion of the work in each phase, subject to a maximum of five percent (5%) of the contract price which will be covered by the Performance Security.</p> <p>WBREDA may, without prejudice to any, all other method of recovery deduct the amount of such damages from any money in their hand due or which may become due to the contractor. The payment or deduction of such damages shall not relieve the contractor from this obligation to complete the works or from any other of his obligations and liabilities under the contract.</p> <p>If there is a valid acceptable reason for delay of execution, the Controlling Officer may at his discretion consider lower down of the liquidated damage or even waive the liquidated damage on having written prayer from the contractor along with valid reason.</p>
GCC.21.0	<p><u>Liquidated Damage</u></p> <p>If the Contractor shall fail to complete the works within the time prescribed herein or extended time for completion, then the Contractor shall pay to the Company a sum amounting to half percent (0.50%) of the value of works as liquidated damages for such delay or every week or part thereof which shall elapse between the time prescribed or extended time as the case may be and the date of completion of the work in each phase, subject to a maximum of five percent (5%) of the contract price which will be covered by the Performance Security.</p> <p>The Company may, without prejudice to any, all other method of recovery deduct the amount of such damages from any money in their hand due or which may become due to the Contractor the payment or deduction of such damages shall not relieve the contract or from this obligation to complete the works or from any other of his obligations and liabilities under the contract.</p> <p>If there is a valid acceptable reason for delay of execution, the Controlling Officer may at his discretion consider lower down of the liquidated damage or even waive the liquidated damage on having written prayer from the contractor along with valid reason.</p>
GCC.22.0	<u>Performance Security/Contract Performance Guarantee</u>
GCC.22.1	The total Performance Security / Contract Performance Guarantee is 03% of the total value of the Contract.
GCC.22.4	The Performance BG will be released after satisfactory completion of the Comprehensive Maintenance support guided by the tender
GCC.22.5	<p>Forfeiture of Performance Security/Contract Performance Guarantee</p> <p>Performance Security/ Contract Performance Guarantee shall be forfeited if,</p> <ol style="list-style-type: none"> i. The successful bidder do not execute the work after placement of Letter of Award (LOA) and/or, ii. The successful bidder will discontinue the work without prior permission

	<p>of WBREDA and/or,</p> <p>iii. The successful bidder fails to install/procure the total capacity of the plant as mentioned in the Bid Document and/or,</p> <p>iv. The contractor fails to submit a fresh BG prior to 15 (fifteen) days of expiration of the previous one against performance security of appropriate amount as per the terms and conditions and/or,</p> <p>v. The successful bidder fails to rectify/replace of the defective/damaged equipment(s)/work(s) within the Defect Liability Period.</p>
GCC.23.0	<u>Taxes, Duties and other Levies</u>
GCC.23.1	Except as otherwise specifically provided in the Contract, the Contractor shall bear and pay all taxes, duties, levies and charges assessed on the Contractor, its Sub-contractors or their employees by all municipal, state or national government authorities in connection with the Works. All taxes, duties - and levies, including Central Goods and Services Tax, West Bengal Goods and Services Tax, Integrated Goods and Services Tax etc, where applicable and payable on Equipment/Materials, components, sub-assemblies, raw materials and any other item required for manufacture of finished Equipment/Material or completion of Works shall be deemed to have been included in total value of supply of goods or services or both.
GCC.23.2	The Contractor shall be solely responsible for the taxes that may be levied on the Contractor's persons or on earnings of any of his employees and shall hold the Purchaser indemnified and harmless against any claims that may be made against the Purchaser. The Purchaser does not take any responsibility whatsoever regarding taxes under Indian Income Tax Act, for the Contractor or his personnel. If it is obligatory under the provisions under the Indian Income Tax Act shall be made by the Purchaser.
GCC.23.3	For the purpose of the Contract, it is agreed that the Contract Price specified in the Contract Agreement is based on the taxes, duties, levies and charges prevailing at the date seven (7) days prior to the last date of bid submission (hereinafter called "Tax" in this paragraph). If any rates of Tax are increased or decreased, a new Tax is introduced, an existing Tax is abolished, or any change in interpretation or application of any Tax occurs in the course of the performance of Contract, which was or will be assessed on the Contractor in connection with performance of the Contract, an equitable adjustment of the Contract Price shall be made to fully take into account any such change by addition to the Contract Price or deduction there from, as the case may be. However, these adjustments would be restricted to direct transactions between the Purchaser and the Contractor (if applicable). These adjustments shall not be applicable on the bought out items.
GCC.23.4	<u>Goods & Service Tax</u>
GCC.23.4.1	Contractor shall mention HSN Code / SAC Code and rate of Taxes against all supplies of Goods or Services or both in its Tax Invoice.

GCC.23.4.2	The Purchaser shall also bear and pay to the Contractor Good and Services Tax , Local Tax (if applicable) in respect of direct transactions between the Purchaser and the Contractor, if imposed on the Equipment/Materials including spares and specified in Price Schedule to be incorporated in the Works. These amounts will be payable, by the Purchaser on the supplies made by the Contractor.
GCC.23.4.3	Tax deduction at source under GST WBREDA shall deduct tax from the payment made or credited to the supplier on the value of taxable supply, where the total value of such supply, under a contract, exceed Two Lakh and Fifty Thousand Rupees at a rate of one percent or at such rate prevailing from time to time.
GCC.23.4.4	In case however, the Equipment / Materials are offered for inspection after the schedule delivery period, CGST plus WBGST, or IGST, as the case may be , will be paid at the rate prevailing at the time of scheduled delivery period or actual delivery period, whichever is lower, in case of direct transactions.
GCC.24.0	<p><u>Extension of Time</u></p> <p>An extension of time without imposition of Liquidated Damage (LD), may be granted for delay in execution of work provided there is no fault whatsoever on the part of the contractor. Such extension may only be granted on the basis of application to be submitted within the schedule date of completion by the contractor who has to establish that the extension of time required by him is not due to his fault.</p> <p>The Contractor may claim an extension of the Time for Completion if he is or will be delayed in completing the Works by any of the following causes:</p> <ol style="list-style-type: none"> a) Extra or additional work ordered in writing by WBREDA. b) Suspension of work ordered in writing. c) Delay by any other Contractor engaged by WBREDA, affecting this Contract. d) Delay in handover of site by WBREDA e) Non accessibility of site f) Force Majeure. <p>The Contractor shall give notice to WBREDA of his intention to make a claim for an extension of time within 15 days of the occurrence of any of the above cause(s). The notice shall be followed as soon as possible by the claim with full supporting details. WBREDA shall after verification allow the Contractor for updating of the programmed chart as facts may justify. The decision of the controlling officer will be the final in this regard.</p>
GCC.25.0	<p><u>Risk Purchase</u> :</p> <p>If the contractor fail, on receipt of the order, to take up the work within reasonable period or leave the work site after partial execution of the work WBREDA shall have the liberty to get the work done through other agency at his own risk and additional amount if any. If the situation so warranted to compel</p>

	WBREDA to cancel the order placed on the Contractor, he shall be liable to compensate the loss or damage, which WBREDA may sustain due to reasons of failure on his part to execute the work in time.
GCC.26.0	<p><u>Materials and Workmanship</u></p> <p>Qualified, experienced people should be deployed to install the grid connected solar power plants. Such installer vendor must have valid electrical license , as issued by the appropriate government authority. All materials will be of the best quality and workmanship capable of satisfactory operation under the operating and prevailing climatic conditions of respective. Unless otherwise specified, they will conform in all respect to the latest edition of the relevant code and standards. The project must be supervised by a qualified Engineers so that the work will be as per drawing and related IS/IEC Code. The work will be performed confirming safety precaution of all level of worker execute the project.</p>
GCC.27.0	<p><u>Approval</u></p> <p>Design and Drawing: The contractor will obtain approval for all the designs associated with civil, mechanical and electrical work which includes design of foundation, structure, cable sizing, fabrication work , layout design , wiring diagram etc. prior to the execution of work and for this purpose the contractor will submit all design and drawing for obtaining approval from Purchaser. The decision of the controlling officer/ engineer-in-charge will be the final in this regard.</p> <p>Materials: Contractor will obtain approval for the materials deliverable under the project. The decision of the controlling officer will be the final in this regard.</p>
GCC.27.1	<p>The Overall time for Documents approval would be 60 days from the days of issuance of LOA</p> <p>Notes:</p> <ul style="list-style-type: none"> a. Any delay whatsoever in the process of submission of documents under different stages shall be on the Contractor's account. <p>Days means working days only</p>

GCC.28.0

Testing and Inspection

Inspecting Agency

The Purchaser may delegate inspection and testing to an outside agency [Project Monitoring Consultant etc] in place of personnel of PURCHASER.

Inspection and Testing During Manufacture

The Purchaser or its designated representative shall be entitled during manufacture to inspect, examine and test the materials and workmanship and check the progress of manufacture of all Equipment to be supplied under the Contract. This shall take place on the Contractor's premises during working hours

No such inspection, examination or testing shall relieve the Contractor of his obligation under the Contract regarding quality of material and soundness of manufacture till defect liability period.

Dates for Inspection and Testing

After getting the related drawings approved, the Contractor shall give the Purchaser notice of inspection along with factory test results in writing of the date and the place at which any Equipment/Materials will be ready for testing as provided in the Contract. The Purchaser shall attend at the place so named within **fifteen (15)** days of the date which the Contractor has stated in his notice. The Purchaser shall give the Contractor notice, in writing, of his intention to attend the tests. The above notices shall be given at first by the quickest possible means and confirmed later in writing. The Contractor shall render all possible assistance in carrying out inspection in time.

Facilities For Testing

Where the Contract provides for tests on the premises of the Contractor or Sub-contractor, the Contractor shall provide such assistance, labour, materials, electricity, fuel, stores, apparatus and instruments as may be necessary to carry out the tests efficiently without any extra charges. If the facilities are inadequate to carry out tests as per standard, the Contractor shall have to arrange suitable testing place having all such required facilities and the cost towards this will be on Contractor's account.

The Contractor shall also bear all charges towards travelling expenses of the Inspecting Team of the Purchaser or the authorized representatives of the Outside Inspecting Agency consisting of **maximum two (2) persons for to and fro journey by Air** from Purchaser's Headquarters, including boarding and lodging local transport with comfort at the place of inspection and transit, if any, for the purpose of Inspection and testing anywhere in India or outside India.

The Contractor shall be responsible for proper execution of the quality plans. The Works beyond Purchaser's hold points will progress only with Purchaser's prior written consent. The Purchaser may also undertake quality surveillance and quality audit of the systems and procedures and quality control activities. Any change in the Quality Plans shall be made only with Purchaser's prior written approval.

The Contractor shall provide the Purchaser with the necessary facilities for carrying out quality audit and quality surveillance of the Contractor's and its Sub-Contractors' Quality Assurance System and manufacturing activities. Any expenses incurred for random sample testing at Govt. recognized test laboratories for SPV Modules, Inverters, MMS will be borne by the contractor. Quantity will be decided by Executing Authority.

Routine and Acceptance Tests

All routine tests and acceptance tests shall be carried out at manufacturer's works or test site of the Contractor/Sub-contractor/test laboratory as per stipulation of

relevant Indian Standard and relevant IEC as mentioned in other part of this tender. All tests shall be carried out on every lot offered for inspection as per relevant I.S. and IEC.

Type Test

The successful bidder shall submit complete and valid test reports of all tests (including type tests) as stipulated in the relevant I.S. and IEC and carried out in a Govt. recognized Test House or laboratory/NABL accredited laboratory on Equipment/IEC accredited laboratory on Equipment / Materials of identical design conforming to our Technical Specification, along with submission of drawing during detailed engineering stage.

PURCHASER may also undertake Proto checking and quality approval of structural items (wherever applicable) before erection. Each type test report shall provide the following information with test results:

- a) Complete identification, date and Serial No.
- b) Method of application where applied, duration and interpretation of each test.

Repetition of Tests

If any of the type tests, routine or acceptance tests fails to pass, the Contractor shall arrange for repetition of the tests, after rectification or replacement, at his own cost and expenses. If, however, the tests fail for **the 2nd time**, the related supplier shall be rejected immediately and the Contractor will be required to furnish the name of another supplier immediately either from the already approved list of Sub-contractor for that particular Equipment/Materials, or any new Sub-contractor along with submission of all relevant documents in support, towards approval of the new Sub-contractor as stated in this tender document.

Reports of Inspection and Tests

After the factory tests have been completed at the Contractor's or Sub-contractor's works, the Contractor shall submit **two (2) copies** of Test Reports for approval of Purchaser. The Purchaser in turn will approve the same. The Contractor shall provide the Purchaser with **two (02) copies** of Approved Reports of all inspection and tests.

If the Purchaser or his designated representatives fails to attend the test and/or inspection or if it is agreed between the parties that such persons shall not do so, then the Purchaser may advice the Contractor in writing to proceed with the test and/or inspection in the absence of such persons. The Contractor should provide the Purchaser with a certified report of the results thereof.

Regarding testing of AJB, IIP, GIP WBREDA may through virtual calling also. This will not be applicable in case of Testing of PV Module, MMS and Grid tied Inverter.

WBREDA , if desired, may test the delivered product(especially solar module) at site from any accredited laboratory of Govt. of India. The result of that test and subsequent decisions taken by the controlling officer will be bound to the contractor.

<p>GCC.29.0</p>	<p><u>Rejection</u></p> <p>If, as a result of an examination/testing, any plant, materials, design or workmanship is found defective and/or not in accordance with the Contract, WBREDA may reject the plant, materials, design or workmanship by giving notice with reasons. The Contractor shall then promptly make good the defect and/or ensure that the rejected/replaced item complies with the Contract.</p>
<p>GCC.30.0</p>	<p><u>Defective Material</u></p> <p>If in the opinion of the Engineer, any of the machineries/equipment/materials etc. brought to the site for use are not of the quality or kind specified in the contract and/or are unfit for the work, he shall be at liberty to order the removal of the said items and the contractor shall remove the same within twenty four (24) hours after notice has been given to him and if he fails to remove them within the time the engineer may cause them to be removed anywhere at the risk of the Contractor and any cost incurred in so doing shall be deducted from the dues to the contractor under the contract. In such case, items as prescribed by the Controlling Officer or his representative are to be substituted immediately</p>
<p>GCC.31.0</p>	<p><u>Defect Liability Period</u></p> <p>The term 'Defect Liability Period' shall be reckoned from the Date of commissioning of Plant/ Project. If any defect is found within the defect liability period the contractor shall be liable to rectify/replace the materials at their own cost and responsibility.</p> <p>Defects/rectification work so notified shall have to be attended and completed satisfactorily within the specified date or as deemed justified by the Controlling officer. For faithful & due fulfillment of all obligations, this defect liability period shall be covered by the performance security/contract performance, already submitted by the contractor.</p> <p>After completion of defect liability period, and on completion of satisfactory rectification of defects, if any, reported within the defect liability period and on receipt of the application from the contractor and considering other factors.</p>
<p>GCC.32.0</p>	<p><u>Subletting of Contract</u></p> <p>The contractor shall not, without the written consent of the WBREDA, assign or sublet any part thereof, other than for raw materials, or for any part of the work provided that any such consent shall not relieve the contractor from any obligation, duty or responsibility under the contract. In the event of sub-letting of contract or any part thereof is permitted, the fact that such permission has been accorded shall not establish any contractual relationship between the approved Sub-vendor and WBREDA of any of his liabilities and obligations under the contract.</p>

<p>GCC.33.0</p>	<p><u>Notices</u></p> <p>Unless otherwise stated in the Contract, all notices to be given under the Contract shall be in writing, and shall be sent by personal delivery, Registered post, special courier, e-mail to the address of the relevant party.</p> <p>Any notice sent by email shall be confirmed within two (2) days after dispatch by notice sent by speed post or special courier, except as otherwise specified in the Contract.</p> <p>Any notice sent by speed post or special courier shall be deemed (in the absence of evidence of earlier receipt) to have been delivered ten (10) days after dispatch. In proving the fact of dispatch, it shall be sufficient to show that the envelope containing such notice was properly addressed, stamped and conveyed to the postal authorities or courier service for transmission by speed post or special courier.</p> <p>Either party may change its postal, email address for receipt of such notices by ten (10) days' notice to the other party in writing.</p> <p>Notices shall be deemed to include any approvals, consents, instructions, orders and certificates to be given under the Contract.</p>
<p>GCC.34.0</p>	<p><u>Right to Terminate Contract</u></p> <p>If the contractor fails to start the work within fifteen days from the date of issuance of LOA, WBREDA shall have the right to cancel the LoA with forfeiture of earnest money without giving any notice to the contractor.</p> <p>If the contractor neglects or fails to proceed with the work proportionate to the scheduled time of completion of the work or fails to complete the work within scheduled time or within approved extended time, WBREDA shall have the right to terminate the LoA after giving notice in writing to the contractor. If the contractor fails after 14 (fourteen) days of such notice, to proceed with the work in the manner notified, WBREDA shall terminate the contract and call the contractor to take joint measurement along with the Engineer for the finished portion of work. If the contractor does not appear for joint measurement, ex-party measurement by WBREDA will be taken as final.</p> <p>In that case, WBREDA shall take possession of the work, site and engage other agency to complete the work. Extra cost, if incurred, to get the unfinished work done through other agency, will be realized from him from his pending bills and security money. In the contract terminated as above, the contractor shall have no claim for compensation against WBREDA for any loss or deterioration of any materials that he may have collected or he may have entered into account of the work.</p>
<p>GCC.35.0</p>	<p><u>Accommodation</u></p> <p>The accommodation of the contractor's Engineers and workers at the site is to be arranged by the contractor.</p>
<p>GCC.36.0</p>	<p>Clearing Site on Completion</p> <p>On completion of the works the contractor shall clear away any and remove from the site all constructional plant, surplus materials, rubbish, debris and temporary works of every kind and leave the whole of the site and works clean and in a good and</p>

	<p>tidy condition to the satisfaction of the Controlling Officer of WBREDA.</p> <p>The contractor shall dismantle and remove the staging and other temporary structures like stores, offices, labour camps etc. on completion of work, clear and clean the site where such temporary facilities were built and restore the same to original condition</p>
GCC.37.0	Corrupt or Fraudulent Practices
GCC.37.1	The Purchaser requires that the bidders/Contractors observe the highest standard of ethics during the procurement and execution of the Contracts.
GCC.37.2	<p>In pursuance of this policy, the Purchaser defines, for the purposes of this provision the terms set forth below as follows:</p> <p>a. "Corrupt practice" means the offering, giving, receiving or soliciting of anything of value to influence the action of a public official in the procurement process or in Contract execution.</p> <p>b. "Fraudulent practice" means a misinterpretation of facts in order to influence the procurement process or the execution of a Contract to the detriment of the Purchaser, and includes collusive practice among bidders (prior to or after bid submission) designed to establish bid prices at artificial non-competitive levels and to deprive the Purchaser of the benefits of free and open competition.</p>
GCC.37.3	The Purchaser will reject a proposal for award if it determines that the bidder recommended for award has engaged in corrupt or fraudulent practices in competing for the Contract in question
GCC.37.4	The Purchaser may declare a firm ineligible, either indefinitely or for a stated period of time, to be awarded a Contract if it any time determines that the firm has engaged in corrupt or fraudulent practices in competing for or in executing a Contract of the Purchaser
GCC.38.0	<p><u>Advertising</u></p> <p>Any advertising stating the subject of this Contract by the Contractor in India or in foreign countries shall be subject to approval of the Purchaser prior to the publication. Publication of approved articles, photographs and other similar materials shall carry acknowledgment to the Purchaser.</p>

<p>GCC.39.0</p>	<p><u>Disputes</u> Any problem while issuing approval, at the time of implementation , at the time of payment, for any extra work, for any deviation, for any interpretation, it will be guided by the terms – conditions and spirit of the Memo no : 5696-F (Y) dt : 01.10.2019, as issued by the Finance Department , Government of West Bengal. The parties shall take necessary steps to settle any dispute through mutual discussion with issuing prior notice in writing to other side at least 07 (seven) days in advance. If the issue is remained unresolved to the satisfaction of the parties, then the matter may be referred to Arbitration. The parties may refer the matter for Arbitration on expiry of 45 (forty five) days from the date of intimation of disapproval/dissatisfaction from either party to other party. The provisions of Arbitration and Conciliation Act 1996 will apply with respect to Arbitration proceedings between the parties. Dispute(s), if any, shall be settled by mutual agreement through Amicable Settlement and in case of failure the dispute(s) shall be settled through Arbitration.</p>
<p>GCC.40.0</p>	<p><u>Jurisdictional Matter</u> Either party may approach the Court of law if any of them is dissatisfied with the decision of <i>Dispute Redressal Committee</i> of WBREDA. All litigation matters/disputes between the parties, if any, shall be held in any Court in Kolkata under the superintendence of High Court of Calcutta.</p>
<p>GCC.41.0</p>	<p><u>Law & Procedure</u> The law which is to apply to the contract and under which the contract is to be constructed shall be Indian Law. The law governing the procedure and administration of any arbitration instituted by the Clause for Arbitration shall be Indian Law.</p>
<p>GCC.42.0</p>	<p><u>Construction of Contract</u> The contract shall in all respect be construed and operated, as a contract as defined in the Indian Contracts Act, 1972 and so on in latest version, and all the payments there under shall be made in India Rupees unless otherwise specified</p>

Section – IV NieT No: WBREDA /NieT-17/23-24 Dated: 15.09.2023 SPECIAL CONDITION OF CONTRACT	
SCC. 1.0	<p><u>Title of the Work</u> “Design & Engineering, Manufacture / Procurement, Testing, Supply, Installation and Commissioning of Roof Top Grid Connected Solar PV Power Plants each of array capacity ranging from above 20 kWp to 90 kWp cumulative array capacity:1 MWp including five (5) years Comprehensive Maintenance on turnkey basis at various locations of West Bengal</p>
SCC.2.0	<p><u>Name of Purchaser</u> WBREDA</p>
SCC.3.0	<p><u>Beneficiaries</u> Various schools, institutes and organization at different places of West Bengal having grid connectivity. As per requirement, number of grid connected solar rooftop power plant shall be one or more at a single site. List of sites will be provided by WBREDA along with LoA.</p>
SCC.4.0	<p><u>Scope of Work</u> The work is to be executed on turkey basis. The Purchaser will not supply any material departmentally. The scope of work will include but not limited to the followings:</p> <ol style="list-style-type: none"> (a) Physical site survey, shadow analysis through appropriate software, PV Array Layout using Auto Cad or appropriate software. List of sites will be provided by WBREDA along with the LoA. (b) Detailed design of the Equipment/ Materials. (c) Complete manufacture including shop testing. (d) Providing engineering drawing, data, operational manual etc for the Purchaser’s approval. (e) Packing, forwarding, transportation and insurance of Equipment/Material from the manufacturer’s works to the Site. (f) Receipt, storage, preservation, insurance and conservation of Equipment/Material at the Site. (g) Reliability tests, performance and guarantee tests, wherever applicable, on completion of commissioning. (h) Erection, testing, commissioning and insurance of all the Equipments/Materials. (i) Obtaining technical approval from the Purchaser. (j) Timely procurement and transportation to site in properly packed condition of all equipment, materials and miscellaneous item required to complete the project (k) Receiving, unloading and transportation at site (l) Safe storage (m) Final check-up of equipment and commissioning and putting the system into successful functional operation. (n) Installation, testing and commissioning of power plant (o) Providing of training material to the end users during onsite training for end users.

	<p>(p) Preparing commissioning certificate and documentation.</p> <p>(q) Training and Handing over of power plant</p> <p>(r) Providing of routine and break down maintenance of grid connected solar rooftop power plants</p> <p>(s) Fulfillment of warranty obligation as may arise</p> <p>(t) Update of Remote Monitoring Monthly basis.</p> <p>(u) Update of maintenance report to be furnished quarterly duly signed by beneficiary. Along with 3 months bill of respective DISCOM</p> <p>In addition to facilitate the installation work, following work may have to be taken up by the contractor as per site condition. The activities, however, deemed to be included in the scope of work.</p> <p>(v) Minor repairing work mainly plastering, white washing, painting, mending good damages and other related miscellaneous work etc.</p> <p>(w) Removing of rubbishes and stacking the serviceable materials at suitable within a lead of around 75m and lift around of 15 m from the installation site place as directed.</p> <p>(x) Cleaning of site identified for installation of different components of the power plants as may be required</p> <p>The equipment and materials other than services deliverable against each of the grid connected solar rooftop power plant of array capacity 20-90 kWp will include but not limited to the following:</p> <p>(y) PV Modules</p> <p>(z) PV Module Mounting Structure</p> <p>(aa) PV Array Junction Box</p> <p>(bb) Grid –Tied String Inverter</p> <p>(ab) Web based on line data logger and Remote Monitoring Unit</p> <p>(ac) Inverter LT Panel</p> <p>(ad) Grid interfacing LT Panel</p> <p>(ae) Kiosks for Inverter and accessories according to site condition</p> <p>Export Import Energy Meter</p> <p>(ag) Cable and Wires</p> <p>(ah) Earthing system and Lightning and over voltage protection</p> <p>(ai) Fire Extinguisher</p> <p>(aj) Recommended spares, tools and tackles</p> <p>(ak) Signage</p> <p>(al) Project Document</p> <p>(am) Periodic Operation Maintenance Log Book and Maintenance Manual, equipment Manual</p>
<p>SSC.4.1</p>	<p><u>Site Survey</u></p> <p>(a) Site visit and field survey at the premises of the Prospective Beneficiaries (List of the prospective beneficiary will be provided by WBREDA).</p> <p>(b) The contractor shall submit site wise Technical Feasibility Survey report with shadow analysis through appropriate software, PV Array Layout using Auto Cad or appropriate software, indicating technical suitability of site for installation of the GCRTSPV system with roof plan indicating the suitable area for installation of solar plant, dimension, north-south direction and any other relevant information for each site, PV Array Layout, Plant Component Layout, the structural condition of the roof / type</p>

	<p>of roof / type of roof treatment (if any) along with all technical particulars along with site wise Single Line Diagram (SLD) etc. These exercises are to be done in line with the guideline laid down by WBREDA. No hand written sketch will be accepted.</p> <p>(c) At any stage during implementation of the project, if it is found that any of the sites is not suitable for installation of GRTSPV systems and the site survey has been conducted without maintaining the guideline as laid down by WBREDA, the site shall not be accepted by WBREDA and all related payment to that particular site will be forfeited.</p> <p>Note: Payment will be done on actual number of site survey conducted.</p>				
SCC.5.0	<p>Metering arrangement DISCOM [Distribution Company like WBSEDCL, CESC etc] will provide Energy Meter at each location. The contractor shall have to guide, facilitate and assist the beneficiary institutions to complete the process of metering arrangement with the respective DISCOM. Payment for metering and phase conversion to DISCOM will be made by WBREDA.</p>				
SCC.6.0	<p>Controlling Officer: The Superintending Engineer, WBREDA or his authorized person, will be Controlling Officer of the work.</p>				
SCC.7.0	<p>Supervising officer Authorized Officer/representative of WBREDA.</p> <p>Site In Charge / Cluster In Charge: Authorized Officer/representative of WBREDA.</p>				
SCC.8.0	<p>Paying Officer Chief of Finance & Accounts, WBREDA is the Paying Authority of the work</p>				
SCC.9.0	<p>Variation, Additions and Omissions WBREDA reserves the right to alter, amend, omit or otherwise vary the allotment quantities of power plant as may be necessary but such variation will be limited to +/-25% (Plus or minus twenty five percent) of the original order Payment shall however be made as per actual execution of work.</p>				
SCC.10.0	<p>Executed work value: The value of work may vary +/-25% (Plus or minus twenty percent) of the contact value.</p>				
SCC.11.0	<p>Completion Time</p> <p>Completion period for the project are as follows:</p> <table border="1" data-bbox="411 1742 1508 2076"> <thead> <tr> <th>Work Volume</th> <th>Completion Time (site survey to completion of installation in all respect.) from the date of placement of LoA along with list of sites</th> </tr> </thead> <tbody> <tr> <td>For 1MWp</td> <td>400 days</td> </tr> </tbody> </table>	Work Volume	Completion Time (site survey to completion of installation in all respect.) from the date of placement of LoA along with list of sites	For 1MWp	400 days
Work Volume	Completion Time (site survey to completion of installation in all respect.) from the date of placement of LoA along with list of sites				
For 1MWp	400 days				

	For other quantities, completion time will be in proportion of above. In case of Providing new list of sites after LoA and first list of sites, Zero Date for new set of sites will be calculated from that date of providing new set of sites.
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SCC.120	<u>Warranty</u>
	<p>The contractor must ensure that the goods supplied under the contract are new, unused and of most recent or current models and incorporate all recent improvements in design and materials unless provided otherwise in the contract.</p> <p>The warrantee period of the complete PV Systems will be 60 calendar months from the date of commissioning. However, the modules will have warranty for 25 years with degradation of power generated not exceeding 20% of the minimum rated power over the 25 years period and not more than 10% up to initial 10 years period as per guideline of MNRE, Government of India.</p> <p>The equipments or components, or any part thereof of the Power Plant, if so found defective during warrantee period, the contractor will remain liable to repair or replace immediately under warrantee obligation to the satisfaction of the Purchaser in order to ensure trouble free operation of the Power Plant.</p> <p>In case of PV Module, the contractor has to transfer Performance Guarantee Certificate from the original manufacturer to the Purchaser for subsequent arrangement.</p> <p>In order to ensure satisfactory performance of the Power Plant, the contractor should take up periodic maintenance as may be required and also attend breakdown maintenance as and whenever required within the warrantee period and scope under warranty obligation.</p> <p>Within the scope of warranty, the Contractor will repair or replace of any defective part of the Plant & Equipment supplied, Works done and services rendered under the Contract and render periodic maintenance as a preventive measure to up keep performance of the power plant and also to attend breakdown maintenance as and whenever needed.</p>
SCC.13.0	<u>Defect Liability Period</u>
	60 (sixty) Calendar Months from the date of commissioning [it is the date of installation of DISCOM (WBSEDCL /CESC) meter] at each site.
SCC.14.0	<u>Comprehensive Maintenance during defect liability period</u>
	<p>All the equipments to be installed for commissioning of each of the grid connected solar PV power plant and the power plant as a whole shall be under Comprehensive Maintenance Contract within the scope of the tender for 5(five) years from the date of commissioning. The equipments or components, or any part thereof, so found defective during Comprehensive Maintenance Contract period will be forthwith repaired or replaced within the scope of warranty obligation of the bidder to the satisfaction of the Purchaser.</p> <p>The maintenance of grid connected solar PV power plant include routine & periodic maintenance, overhauling, breakdown maintenance and repairing or replacement of defective PV modules, investors and other components, providing of all consumables.</p> <p>The complete back to back agreement with the manufacturer of SPV Module,</p>

	<p>Inverter, MMS, Net Meter, etc of the agency have to be submitted to WBREDA. The scope of support service provides preventive maintenance as & when necessary within the contract period and break down maintenance in the event of malfunctions, which prevent the operation of the power system or part of it within the stipulated time period & free replacement of spares required for maintenance.</p> <p>The contractor will provide Spare parts & Measuring Instruments during</p>																		
<p>SCC.14.0</p>	<p><u>Comprehensive Maintenance during defect liability period</u></p> <p>All the equipments to be installed for commissioning of each of the grid connected solar PV power plant and the power plant as a whole shall be under Comprehensive Maintenance Contract within the scope of the tender for 5(five) years from the date of commissioning. The equipments or components, or any part thereof, so found defective during Comprehensive Maintenance Contract period will be forthwith repaired or replaced within the scope of warranty obligation of the bidder to the satisfaction of the Purchaser.</p> <p>The maintenance of grid connected solar PV power plant include routine & periodic maintenance, overhauling, breakdown maintenance and repairing or replacement of defective PV modules, invertors and other components, providing of all consumables.</p> <p>The complete back to back agreement with the manufacturer of SPV Module, Inverter, MMS, Net Meter, etc of the agency have to be submitted to WBREDA. The scope of support service provides preventive maintenance as & when necessary within the contract period and break down maintenance in the event of malfunctions, which prevent the operation of the power system or part of it within the stipulated time period & free replacement of spares required for maintenance.</p> <p>The contractor will provide Spare parts & Measuring Instruments during maintenance.</p> <p>The Down-Time of PV system should not be more than seven (07) working days</p>																		
<p>SCC.14.1</p>	<p><u>Routine maintenance:</u></p> <p>In order to carry out routine maintenance of the power plant, the contractor will provide all labour, material, consumables etc. within the scope of maintenance service. Recommended tusks under the scope of routine maintenance will include but not limited to the followings:</p> <table border="1" data-bbox="427 1532 1525 1957"> <thead> <tr> <th data-bbox="427 1532 544 1570">SI No.</th> <th data-bbox="544 1532 1525 1570">Type of Routine Maintenance [at least once in each quarter]</th> </tr> </thead> <tbody> <tr> <td data-bbox="427 1570 544 1608">01</td> <td data-bbox="544 1570 1525 1608">Checking and tightening of all electrical connections</td> </tr> <tr> <td data-bbox="427 1608 544 1646">02</td> <td data-bbox="544 1608 1525 1646">Checking and tightening of mechanical fittings</td> </tr> <tr> <td data-bbox="427 1646 544 1684">03</td> <td data-bbox="544 1646 1525 1684">Checking of earthing system</td> </tr> <tr> <td data-bbox="427 1684 544 1722">04</td> <td data-bbox="544 1684 1525 1722">Dusting and cleaning of inverter and other electrical equipments</td> </tr> <tr> <td data-bbox="427 1722 544 1805">05</td> <td data-bbox="544 1722 1525 1805">Routine maintenance as recommended by the Original Equipment Manufacturer (OEM)</td> </tr> <tr> <td data-bbox="427 1805 544 1843">06</td> <td data-bbox="544 1805 1525 1843">Renewal of Fire Extinguishers</td> </tr> <tr> <td data-bbox="427 1843 544 1926">07</td> <td data-bbox="544 1843 1525 1926">Generation report quarterly to be furnished from RMS SCC 4.0 (t) along with 4 months of DISCOM bill</td> </tr> <tr> <td data-bbox="427 1926 544 1957">08</td> <td data-bbox="544 1926 1525 1957">Quarterly visit and furnish of maintenance report as per SCC 4.0(u)</td> </tr> </tbody> </table> <p>The engagement terms along with back to back warrantee & maintenance terms of the agency regarding maintenance with the OEM have to be submitted to WBREDA.</p>	SI No.	Type of Routine Maintenance [at least once in each quarter]	01	Checking and tightening of all electrical connections	02	Checking and tightening of mechanical fittings	03	Checking of earthing system	04	Dusting and cleaning of inverter and other electrical equipments	05	Routine maintenance as recommended by the Original Equipment Manufacturer (OEM)	06	Renewal of Fire Extinguishers	07	Generation report quarterly to be furnished from RMS SCC 4.0 (t) along with 4 months of DISCOM bill	08	Quarterly visit and furnish of maintenance report as per SCC 4.0(u)
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08	Quarterly visit and furnish of maintenance report as per SCC 4.0(u)																		

<p>SCC.14.2</p>	<p><u>Breakdown maintenance:</u></p> <p>Breakdown maintenance will include but not limited to the followings:</p> <ul style="list-style-type: none"> i) Breakdown maintenance will mean the maintenance activity including repairs and replacement of any component or equipment of the power plant, which is required to be carried out as a result of any sudden failure/breakdown of that particular component or equipment while the plant is running. ii) The contractor will be responsible to carry out breakdown maintenance of the power plant and will provide the required manpower, materials, consumables, components or equipment etc. for breakdown maintenance. iii) The contractor will undertake necessary maintenance/ troubleshooting work of the grid connected solar rooftop power plants. Down time will not be more than 07 (seven) working days from time of occurrence or reporting. However, if the breakdown is not repairable within 07 (seven) working days due to some specific reason, the contractor must seek extension of time by giving sufficient acceptable reasons within three working days of the occurrence of the fault. In such case, the contractor will also specify the specific date within which the fault will be restored and the system will be put in operation again. However, the final decision taken by the Purchaser considering all such reason will be binding for the contract. In such cases the restoration shall be done by the contractor with in maximum 15 days. If the restoration of the power plant shall not be done within 15 days, the CMC payment of that Power plant shall be deducted prorate basis.
<p>SCC.14.3</p>	<p><u>Capital Maintenance:</u></p> <p>Capital Maintenance shall mean the major overhaul of any component or equipment of the power plant which is not covered by routine, preventive and breakdown maintenance which may become necessary on account of excessive wear & tear, aging, which needs repair/replacement. The capital maintenance of power plant and all civil structures shall normally be planned to be carried out on an annual basis.</p> <p>The capital maintenance also includes annually painting of mechanical & civil structures etc as and where required. Adequate measures should be taken for prevention of wear and tear of the machines. Solar PV Power System is to be designed to operate with a minimum of maintenance.</p> <p>The scope of support service provides preventive maintenance as & when necessary within the contract period and breakdown maintenance in the event of malfunctions, which prevent the operation of the power system or part to fit within the stipulated time period & free replacement of spares required for maintenance.</p> <p>The contractor will provide Spare parts & Measuring Instruments</p>
<p>SCC.14.4</p>	<p><u>Maintenance Report :</u></p> <p>The Maintenance R e p o r t comprising of Generation Data for that particular period, period of grid outage, reduction amount of electricity bill and any other required details for each location as per approved format must be submitted to WBREDA with certification of beneficiary in PDF form through email at sewbreda2021@gmail.com, after completion of each year’s maintenance service. If the contractor shall not submit the maintenance report within one month from the date of completion of maintenance period, the CMC charge shall be deducted to the tune of maximum 10% for that period. For all maintenance reports energy meter reading with photographs,</p>

	<p>duly endorsed by the respective school authority are mandatory for submission. In case of absence of appropriate functioning of the RMS, the contractor has to intimate it to WBREDA within 15 days for such occurrence with mention of reasons for such incidence and restoration measures for the same.</p> <p>The payment shall be made on yearly basis on submission of bills in triplicate to WBREDA along with a copy of the maintenance report of the claimed year period.</p>	
SCC.14.6	<p><u>Rental and other periodic charges</u></p> <p>The contractor shall pay the rental charge of the SIM / Telephone Bill for web connectivity in order to transfer of data related to Web Based Remote Monitoring System. The contractor shall also pay the rental charges for server of the web based remote monitoring system for storing and access the data till the defect liability period is over. The Contractor shall also pay necessary charges periodically for refilling of the Fire Extinguisher till defect liability period is over within the contract price.</p>	
SSC.14.7	<p>The payment towards maintenance shall be made on yearly basis on submission of bills in triplicate to WBREDA along with a copy of the maintenance report during the claimed period.</p>	
SCC.15.0	<p><u>Payment:</u></p> <p><u>All payments to be made to the Contractor under the contract will be in Indian rupees only. Payment schedule proposed to be as follows:</u></p>	
SINo	Work Head	Pattern of release of payment
(ii)	After delivery of materials at each site	55% payment on delivered item
(ii)	After installation of the Power Plant.	25% payment against delivered item and 80% on service item.
(iii)	Performance testing , users' training and observing the performance of the system for 30 days from the date of commissioning and handing over of Power Plant for each site	5% Payment on delivered items and service item.
(iv)	Performance of providing of Comprehensive Maintenance support for five years (i.e	15% of the supply item and 15% of the service item will be released on yearly basis in five equal installment (3% per year) subject to satisfactory performance as per Clause no: SCC.14.0 and its sub clause on submission of maintenance report on regular basis and submission of

	during defect liability Period) for each site.	Extension of BG
(v)	Performance Bank Guarantee :10%	The BG against Performance Guarantee will be released after satisfactory completion of the Defect liability period guided by this tender
	<p>The materials shall be delivered at site according to the Bill of Materials mentioned in the BOQ.</p> <p>The contractor shall submit Invoice in triplicate for releasing the payments based on the Joint Measurement Certificate. The first 60% payment will be released against signed delivery chalan of the respective school authority with photographs and latitude-longitude of the school where the power plant will be installed. For other payments, WBREDA officials or authorised agency will inspect sites to the extent, to be decided by the Controlling Officer / Engineer-In –Charge of the project.</p>	
SSC.16.0	<p><u>End Users Training</u></p> <p>The Contractor will arrange for training at site for the end users.(representatives of schools)</p>	
SSC.17.0	<p><u>Handing Over</u></p> <p>The work will be taken over by WBREDA upon successful completion of all tasks to be performed at site(s) on equipment supplied, installed, erected, commissioned and run successfully for consecutive 30 days by the contractor in accordance with provision of this order. During handing over of the complete project work, the contractor will submit the followings for considering final payment in triplicate along with soft copy of each site:</p> <ol style="list-style-type: none"> a) All As-Built Drawings & Design of the power plant b) Layout of PV array field, schematic drawing c) Installation and testing compliance document as per format provided by WBREDA d) Detailed Engineering Document with detailed specification, schematic drawing, Design and test results, manuals for all deliverable major items, Operation, Maintenance & Safety Instruction Manual and other information about the project e) Bill of materials f) Performance Guarantee Certificate of PV modules from the original manufacturer 	

	<p> <i>h)</i> Completion certificate as per prescribed format , to be provided by WBREDA <i>i)</i> Item wise picture- minimum four (04) numbers (PV Array Field-2Nos, Kiosk having Inverter, IIP, AJB-01 No., Energy Meter—1 No, Training – 01 No) <i>j)</i> 30 days Generation Data. <i>k)</i> Copy of the Electricity Bill of the Beneficiary organization <i>l)</i> Insurance Document <i>m)</i> Handing Over document. In case of pandemic situation or others , virtual inspection and handing over through paper transaction may take place , if any , as per decision of the Engineer-in-Charge. </p>
<p>SCC.18.0</p>	<p> Other documents to be delivered to WBREDA The documents to be delivered to WBREDA will include but not limited as follows: Warranty Certificates of Original Equipment Manufacturer (OEM) for stipulated period as mentioned in the Tender for Solar PV Modules, Inverters, etc. </p>

SCC.19.0**Approval of Inverter , Data logger & Web Based monitoring systems**

- ❖ The proposed inverter (approval for maximum three makes) shall have the features in compliance with the terms as laid down in the tender.
- ❖ The proposed inverter (minimum 10 kVA or above capacity for minimum 10 numbers) should be used in the Solar PV projects in any Government organization / Government undertaking / Government agencies / SNA of MNRE, Govt. of India / any government programme and in operation with satisfaction for a minimum period of last 01 year before the date of issuance of the NIET. (Site visit / verification through R.M.S of such inverter(s), if it will be decided by the Controlling Officer/ Engineer-in-Charge, is to be arranged by the Agency concerned). The bidder has to submit required documents at the level of satisfaction of WBREDA. Verification from online remote monitoring system will also be accepted as proof of performance.
- ❖ The proposed inverter manufacturer must have service centre or authorized service provider anywhere in India. The contractor shall have to submit the detail of the service centre setup with documentary proof like Trade license (if applicable), Agreement etc at time of the request for approval of Inverter.
- ❖ Contractor shall be sole responsible for the delay in obtaining approval of the inverter, data logger and Web Based Monitoring System due to non-compliance of any terms, as laid down here.
- ❖ Demonstration of Inverter have to be provided by the contractor at his place/warehouse/lab having appropriate testing facility along with all requisite documents at the time of approval. The contractor have to submit QAP for approval to WBREDA before testing/demonstration. Testing includes but not limited to the following: THD, Efficiency, appropriate AC & DC Protection, Anti Islanding, Data dumping, etc as per acceptability of WBREDA in accordance to the specification laid elsewhere in the tender document. Appropriate and satisfactory protection at DC & AC side is to be ensured at the satisfaction of WBREDA.
WBREDA may engage third party for testing of inverters at NABL accredited third party laboratory at its own cost at any stage like approval , implementation etc of the project.
- ❖ The bidder has to replace the inverter, at their own cost, if its performance will deteriorate at site , within the defect liability period.
- ❖ Before going for mass production, approval shall be provided by WBREDA for the particular model(s) of the inverter(s).
- ❖ No further approval shall be accorded after completion of approval or in the mid time of the execution of the project if otherwise any force majeure/unusual/abnormal condition is arisen. In any case, the controlling officer/ Engineer –in-Charge’s decision regarding approval will be final.
- ❖

	<p>Approval of PV Module</p> <ul style="list-style-type: none"> ❖ The contractor has to offer PV Module. Out of offered PV Modules; approval shall be provided for the PV Module(s) of maximum three manufacturers, subject to compliance of the document submitted by the Contractor as per tender. ❖ In any case, the controlling officer/ Engineer –in-Charge’s decision regarding approval will be final. ❖ WBREDA may engage third party for testing of modules at NABL accredited third party laboratory at its own cost at any stage like approval , implementation etc of the project. ❖ The bidder has to replace the module, at their own cost, if its performance will deteriorate at site , within the defect liability period. ❖ Before going for mass production, approval shall be provided by WBREDA for the particular model(s) of the module(s). <p>Approval of Balance of Systems (BOS)</p> <ul style="list-style-type: none"> ❖ The contractor has to offer BOS. Out of offered BOS, approval shall be provided of maximum three manufacturers, subject to compliance of the document submitted by the Contractor as per tender. ❖ In any case, the controlling officer/ Engineer –in-Charge’s decision regarding approval will be final.
<p>SCC.20.0</p>	<p>Joint Inspection</p> <p>Joint Inspection may be carried out at various stages of execution of the work as follows but not limited to the following stages, as per decision of the Controlling officer/ Engineer-in-Charge :</p> <ol style="list-style-type: none"> a) Site Survey during site feasibility. b) Inspection at factory for Witness of testing before Dispatch of materials. c) After delivery of materials of GCRTSPV systems at individual site d) After Installation of GCRTSPV systems at individual site. e) After Testing of GCRTSPV systems at individual site.

SCC.20.1	The Contractor shall bear all charges towards travelling expenses of the Inspecting Team of the WBREDA or the authorized representatives of the Outside Inspecting Agency (third party) consisting of maximum two (2) persons at each event for to and fro journey by Air where available from Purchaser’s Headquarters, including appropriate boarding and lodging for inspection at factory/ laboratory etc. For Joint Inspection at site at different stage of the project the Contractor shall also bear all charges towards travelling expenses from WBREDA’s Headquarter including appropriate boarding and lodging level for maximum two such visits at each site.
SCC.22.0	<u>Additional 05 Years Annual Comprehensive Maintenance</u> WBREDA may extend the Annual Comprehensive Maintenance for a further period of 05 years (additional 05 years after completion of Defect Liability Period) as will be confined on the basis of satisfactory performance of the Agency concerned on mutually agreed terms & conditions. So, no amount is to be quoted for this job in the present tender, at present.
SCC.23.0	<u>Minimum Annual Generation :</u> 1200 Unit/Year/Kw if not done payment will be deducted as per norms.

Section – V-A

NieT No: WBREDA /NieT-17/23-24 Dated: 15.09.2023

FORMS

SI No	Form Name	Form No
01.	Check List	Form-1
02.	Forwarding Letter for submission of Bid Security and Tender Fee	Form -2
03.	Bid Form	Form-3
04.	Proforma for Undertaking to be submitted by the Bidder	Form-3A
05.	Summary statement of yearly turnover and net worth	Form-5A
06.	Capability status	Form-5B
07.	BID Capacity	Form -5C
08.	Statement of similar type of order orders executed as on date of issuance of the NieT	Form-6
09.	Curriculum Vitae of key Personnel	Form-7
10..	Format for submission of Pre-Bid Queries	Form- 8
11.	Proposed modifications	Form-9
12.	Consortium Agreement	Form-10
13.	Power of Attorney for Lead Member of Consortium	Form-11

CHECKLIST

Sl. No.	Scanned Copy of Documents to be uploaded	Name of folder	To be submitted in cover	Submitted (Y/N)
1.	Check List(Form-1)	Forms	Statutory cover (Technical proposal)	
2.	Bid Form (Form-2)	Forms	Statutory cover (Technical proposal)	
3.	Pro-forma for undertaking to be submitted by the Bidders(Form-3)	Forms	Statutory cover (Technical proposal)	
4.	Bid Security (Form-4)	Forms	Statutory cover (Technical proposal)	
5.	Summary Statement Of Yearly Turnover And Net Worth (Form 5A)	Forms	Statutory cover (Technical proposal)	
6.	Capability status (Form 5B)	Forms	Statutory cover (Technical proposal)	
7.	BID Capacity (Form 5C)	Forms	Statutory cover (Technical proposal)	
8.	Statement of similar type of order/orders executed as on date of issuance of the NIeT (Form 6)	Forms	Statutory cover (Technical proposal)	
9.	Curriculum Vitae Of Key Personnel (Form 7)	Certificates	Non-Statutory cover (Technical proposal)	
10.	Format For Submission Of Pre-Bid Queries (Form 8)	Forms	Non-Statutory cover (Technical proposal)	
11.	Proposed modifications (Form 9)	Forms	Non-Statutory cover (Technical proposal)	
12.	Consortium Agreement (Form 10)	Forms	Statutory cover (Technical proposal)	

13	Power of Attorney for lead member of consortium (Form 11)	Forms	Statutory cover (Technical proposal)	
14	Scanned Copy of Documents to be uploaded	Name of folder	To be submitted in cover	Submitted (Y/N)
15	BOQ(Financial proposal)	Bill of Quantities (BOQ)	Financial Proposal	

Date : (Printed Name).....

Place : (Designation).....

Signed and Upload

Bid Form
(Bidder s Letterhead)

Ref No:

To
The Superintending Engineer,
WBREDA ,
Bikalpa Shakti Bhavan, J1/10, Block-EP&GP
Salt Lake Electronics Complex, Kolkata-700091

Subject : Design and engineering, manufacture/procurement, testing, supply installation and commissioning, 5years comprehensive maintenance for 990 nos. of grid connected rooftop Solar PV power plants, each of array capacity 10kWp on turnkey basis

Reference: NIeT No: WBREDA /NIeT-17/23-24 Dated: 15.09.2023

Sir,

I, the undersigned, being the authorized signatory of(Name of the Bidder), having read and examined in detail the NIeT including minimum eligibility criteria in particular, instruction to Bidders, general terms & conditions, special terms & conditions and specification, do hereby submitting our offer to execute the contract as per terms & conditions as said forth in your Tender document.

1. We confirm having submitted the eligible criteria as required by you in your Tender Document along with this proposal. In case you require any further information or clarification in this regard, we agree to furnish the same in time.
2. We have submitted the requisite amount of “Tender Fee” in online mode.
3. We hereby furnish the following:

1	GSTIN	
2	PAN No	

4. Our contact details related to this tender are as follows:

Information	Local office (In West Bengal)	Head office
Name of the Contact Person		
Designation		
Telephone No		
Fax No		
Mobile No		
Email Address		

5. We confirm that our bid in response to the NIEt is consistent with all the requirements of submission as stated in the Tender Document and subsequent communications from WBREDA.
6. We have neither made any statement nor provided any information in this Bid, which to the best of our knowledge is materially inaccurate or misleading. Further, all the confirmations, declarations and representations made in our Bid are true and accurate.
7. We declare that the submitted our offer is without any deviations and are strictly in conformity with the documents issued by WBREDA.
8. We declare that content of the Tender Document including NIEt, ITB, GCC, SCC, Technical Specification and subsequent corrigendum, addendum, if any, are acceptable to us and we have not taken any deviation in this regard. This is to expressly certify that our offer contains **no deviation** either in direct or indirect form.
9. We also declare that in case any deviations are noticed which might have crept inadvertently, that such deviations without reservation of any kind are automatically deemed to have been withdrawn by us.
10. If you accept our offer, we agree to complete the entire work in accordance with work completion time given in the Tender document. We fully understand that the work completion time stipulated in is the essence of the contract, if awarded.
11. We offer to execute the work in accordance with the conditions of the NIEt document as available in the website.
12. This Bid and your subsequent Letter of Acceptance / Work Order /agreement shall constitute a binding contract between us.
13. We hereby confirm our acceptance o fall terms and conditions of the NIEt document unconditionally.
14. We also declare that, we have never been blacklisted and / or there were no debarring actions against us as on date due to any reason what-so-ever, by any Government or Government Agencies. In the event of any such information pertaining to the aforesaid matter found at any point of time either during the course of the contract or at the bidding stage, our bid/contract will be liable for truncation / cancellation / termination without any notice at the sole discretion of WBREDA.

Date : (Printed Name).....
Place : (Designation).....

Signed and Upload

PROFORMA FOR UNDERTAKING TO BE SUBMITTED BY THE BIDDER

(Bidders Letterhead)

(For genuineness of the information furnished on-line and authenticity of the documents produced before Tender Committee for verification in support of his eligibility)

I-----, Partner/Legal Attorney/Accredited Representative of

M/s-----, solemnly declare that:

1. We are submitting Tender for the Work -----
against Tender Notice No.----- dated -----
2. All the information's furnished by us in respect of fulfillment of eligibility criteria and qualification information of this Tender is complete, correct and true.
3. All documents/credentials submitted along with this Tender are genuine, authentic, true and valid.
4. If any information and document submitted is found to be false/ incorrect any time, department may cancel my Tender and action as deemed fit may be taken against us, including termination of the contract, forfeiture of all dues including Earnest Money and banning/delisting of our firm and all partners of the firm etc.

Date : (Printed Name).....

Place : (Designation).....

Signed and Upload

SUMMARY STATEMENT OF YEARLY TURNOVER AND NET WORTH

Bidder's Name & Address:

NIeT No: WBREDA /NIeT-17/23-24 Dated: 15.09.2023

To

The Superintending Engineer

WBREDA

Bikalpa Shakti Bhavan, J1/10, Block-EP&GP ,

Salt Lake Electronics Complex, Kolkata-700091

This is to certify that the following statement is the summary of the Audited /Tax audited Accounts of our Company/firm (The Bidder) arrived for the three consecutive years or for such period since inception of the Firm, if it was set in less than such three year's period as follows:

Sl.No.	Financial		Remarks
	Financial Year	Turnover rounded upto in lakh (two digit after decimal)	
1.	2019-20		
2.	2020-21		
3.	2021-22		
4.	Average yearly Turn Over		
5	Work in capital FY-20-21,21-22,22-23		
5.	Net Worth as at FY-20-21,21-22,22-23		

Note:

1. Average turnover is to be expressed in rupees in lakh, rounded upto two digits after decimal.
2. The statement must be the individual bidder's turnover and not the consolidation as the result of accounts of group and associates.
3. Average turnover for 3 years is to be obtained by dividing the total turnover by 3.0. If the bidder was set up in less than 3 year's period, consider the turnover for the period from inception to the Year-1.It may be either 1.0 or 2.0.
4. Average turnover is to be obtained by dividing the total turnover by 1.0 or 2.0,as the case may be.
5. Work in capital should be 35% of the Quoted Value
6. In case, the bidder was set up in less than 3year's period, mention the year of inception in the Remarks 'column.

Signed and Upload

Capability status
(Bidders Letterhead)

NIeT No: WBREDA /NIeT-17/23-24 Dated: 15.09.2023

Bidder's Name & Address:

To
The Superintending Engineer
WBREDA
Bikalpa Shakti Bhavan, J1/10, Block-EP&GP,
Salt Lake Electronics Complex, Kolkata-700091

We provide the following details to conform that we have sufficient capacity to execute the supply of Goods covered in the NIeT:

A	Manufacturing Capacity (applicable in case of original manufacturers only)	
B	Orders in Hand	
i	Total value of Orders	
ii	Value of work completed out of above value upto 31.12.2022.	
iii	Value of anticipated work to be done in the following Financial Years: FY-20-21,21-22,22-23	

Details of orders in hand are as follows:

Sl. No	Owner/ Client	Scope of works	Order Value	Schedule Time of Completion	Value of Outstanding work	Estimated Completion date

Note:

- Continuation sheets of like size and format may be used and annexed to this format if required.

Date : (Printed Name).....

Place : (Designation).....

Signed and Upload

Form 5(C)

B.2.1. Name of applicant: _____

B.2.2. Information of audited financial statements for the last year to demonstrate the current soundness of the bidder's financial position:

1. The bidder's net worth for the last year calculated on the basis of capital, profit and free reserve available to the firm should be positive.
2. Bidders, who meet the minimum qualification criteria, will be qualified only if their available bid capacity at the expected time of bidding is more than the total estimated cost of the works. The available bid capacity will be calculated as under:

Assessed Available Bid capacity=(AxNx2-B)= _____

where,

A= Maximum value of engineering works in respect of projects executed in any one year during the last five years (updated to the price level of the year indicated in table below under note) taking into account the completed as well as works in progress. The projects include turnkey project/item rate contract/Construction works.

N= Number of years (i.e, ----- year) prescribed for completion of the works for which bids are invited.

B= Financial liability of the bidder to be incurred for existing commitments and ongoing works during the period of the subject contract.

To calculate the value of "A"

i)A table containing value of Engineering works in respect to projects (Turnkey projects/item rate contract /Construction works) undertaken by the Bidder during the last 5 years is as follows:

Serial No	Financial Year	Value of Engineering works undertaken w.r.t. projects (Rs in Crore)
1	Year-5	
2	Year-4	
3	Year-3	
4	Year-2	
5	Year-1	

ii) Maximum value of projects that have been undertaken during the F.Y----- out of the last five years and value thereof is Rs ----- Crore (Rupees -----). Further , value updated to the price level of the year indicated in table is as follows:

Rs _____ Crore X _____ (Updation factor as per Table annexed)
 = Rs _____ Crore (Rupees _____)

Table indicating factor for the year for updation to the price level is indicated as under:

Serial No	F.Y	Updation factor.
1	Year-1	1.00
2	Year-2	1.05
3	Year-3	1.10
4	Year-4	1.15
5	Year-5	1.20

iii) Net worth for the last year of _____(Name of the Company).

.....
 Signature, name and designation of Authorised Signatory

For and on behalf of
(Name of the applicant)

.....
 Name of the Statutory Auditor's Firm

Seal of the Audit Firm:
 (Signature, name and designation and membership No. of the authorized signatory)

To calculate the value of "B"

3. A table # containing value of all the existing commitments and on-going workings to be completed during the next ___ years (prescribed time for completion of the works for which bids are invited) is as follows:

Sl. No.	Name of the Work / Project	Name of the Employer	Percent age of participation of Bidder in the project	Stipulated period of completion as per agreement/ LOA with the start date	Value of Contract as per Agreement/ LOA Rs._____	Value of work completed Rs._____	Balance value of work to be completed Rs._____	Anticipated date of completion	Financial liability to incurring for the said work/project during the period of the subject contract Rs._____
1	2	3	4	5	6	7	8	9	10

.....
 Signature, name and designation of Authorised Signatory
 For and on behalf of
(Name of the Applicant)

Note:

1. All the documents to be submitted in support of above must be duly signed and sealed by the applicant/bidder and authenticated by Statutory Auditor's Firm.
2. Financial Year **2020-21** will be considered as year – 1.

(Bidders Letterhead)

Statement of similar type of order/orders executed as on date of issuance of the NIeT

[Applicability up to the extent of fulfillment of Technical QR].

NIeT No: WBREDA /NIeT-17/23-24 Dated: 15.09.2023

Bidder's Name & Address:

To
 The Superintending Engineer
 WBREDA
 Bikalpa Shakti Bhavan, J1/10, Block-EP&GP ,
 Salt Lake Electronics Complex, Kolkata-700091

SI No	Name of the Installed Plants/ Project	Financial year	Order No. and date	Name of Owner / order issuing authority	Cumulative capacity of the order (Considering similar type of work) (scanned copy of certificate to be Submitted in non- statutory cover) (kWp)	Ordered Value/Time (extended time, if any) of Completion	Cumulative capacity installed (Considering similar type of work) (kWp)	Completion report of installed systems (scanned copy of certificate to be Submitted in non- statutory cover)	Remarks

- Continuation sheets of like size and format may be used and annexed to this format if required.

Date : (Printed Name).....
 (Designation).....

Place : Signed and Upload

(Bidders Letterhead)
CURRICULUM VITAE OF KEY PERSONNEL

NIeT No: WBREDA /NIeT-17/23-24 Dated: 15.09.2023

Bidder's Name & Address:

To
The Superintending Engineer
WBREDA
Bikalpa Shakti Bhavan, J1/10, Block-EP&GP ,
Salt Lake Electronics Complex, Kolkata-700091

Sl.No	Proposed Position	Name	Position Held since	Professional Qualification	Experience in relevant Field	Any other Information

Date : (Printed Name).....

Place : (Designation).....

Signed and Upload

Note:

- Continuation sheets of like size and format may be used and annexed to this Form if required.

FORMAT FOR SUBMISSION OF PRE-BID QUERIES			
WBREDA /NleT-17/23-24 Dated: 15.09.2023			
Design and engineering, manufacture/procurement, testing, supply installation and commissioning, 5years comprehensive maintenance for 990 nos. of grid connected rooftop Solar PV power plants, each of array capacity 10 kWp on turnkey basis.			
NAME OF THE BIDDER:	<To be filled in by the bidder>	Work name : <To be filled in by the bidder>	
PART A - TECHNICAL QUERIES			
Sl no	GCC Clause reference (if any)	BIDDER'S QUERY	WBREDA's REPLY
1			
2			
3			
4			
5			
PART B: COMMERCIAL/GCC RELATED/CONTRACTUAL QUERIES			
Sl no	GCC Clause reference (if any)	BIDDER'S QUERY	WBREDA's REPLY
1			
2			
3			
4			
5			
• Continuation sheets of like size and format may be used as per Bidders requirements and shall be annexed to this Form.			

Note: 1. To be submitted before Pre- bid meeting

2. This sheet must not the part of the offer submitted by the bidder and not to be upload

3. Pre bid query to be mailed in Excel Format at email address :

sewbreda2021@gmail.com

Date :	(Signature).....
Place :	(Authorized Representative of bidder)..
	(Designation).....
	Name of the bidder:

(Bidders Letterhead)
Proposed modifications
(To be submitted before Pre-bid meeting)

NIeT No: WBREDA /NIeT-17/23-24 Dated: 15.09.2023

Bidder's Name & Address:

To
The Superintending Engineer
WBREDA
Bikalpa Shakti Bhavan, J1/10, Block-EP&GP ,
Salt Lake Electronics Complex, Kolkata-700091

We have carefully gone through the Technical Specifications and the General Conditions of Contract and we have satisfied ourselves and hereby propose certain modifications as mentioned below:

Sl.No.	Sec./Clause & Page No.	Existing Clause	Modified clause (proposed by Bidder)	Reasons for modification

Note: 1. To be submitted before Pre- bid meeting

2. This sheet must not the part of the offer submitted by the bidder and not to be upload

3.This sheet to be mailed in Excel Format at email address : cewbredagedcl@wb.gov.in

Date : (Signature).....

Place : (Authorized Representative of bidder)

(Designation).....

Name of the bidder:

CONSORTIUM AGREEMENT

To be executed on non-judicial stamp paper of appropriate value (minimum 100/-) as per Stamp Act relevant to place of execution and Duly Notarized

Agreement is made on this _____ day of _____, 2020

BETWEEN

M/s. _____, an entity constituted in accordance with the laws of India and having its Registered Office at _____, acting through its duly authorized representative, Mr / Ms. _____ [Please insert name and designation] (hereinafter referred to as the 'First Participant Member' which expression unless excluded by or repugnant to the subject or context be deemed to mean and include its successors-in-interest, authorized representatives, administrators, and permitted assigns) of the First Part;

AND

M/s. _____, an entity constituted in accordance with the laws of India and having its Registered Office at _____, acting through its duly authorized representative, Mr. / Ms. _____ [Please insert name and designation] (hereinafter referred to as the 'Second Participant Member' which expression unless excluded by or repugnant to the subject or context be deemed to mean and include its successors-in-interest, authorized representatives, administrators, and permitted assigns) of the Other Part.

WHEREAS WBREDA, a Company, registered under the Companies Act, 1956 having its Registered Office at Bikalpa Sakti Bhaban, J1/10, Block EP&GP, Sector V, Salt Lake, Kolkata 700091 (hereinafter called "WBREDA") had invited bids for the project of Design & Engineering, Manufacture / Procurement, Testing, Supply, Installation and Commissioning of Roof Top Grid Connected Solar PV Power Plants each of array capacity ranging from & above 20 kWp to 90 kWp cumulative array capacity:1 MWp including five (5) years Comprehensive Maintenance on turnkey basis at various locations of West Bengal (hereinafter called the "Project") and the bid conditions require that the applicants bidding for the same should form a Consortium for bidding as well as executing the Project and till completion of its defect liability period of the project.

AND WHEREAS the Parties of the First and Second Parts jointly satisfy the eligibility criteria laid down by WBREDA for participating in the bidding process by forming a Consortium between themselves.

The Parties hereby form such a Consortium subject to the following terms and conditions and this Agreement shall form a part and parcel of the Agreement for the work against the tender for of title **Design & Engineering, Manufacture / Procurement, Testing, Supply, Installation and Commissioning of Roof Top Grid Connected Solar PV Power Plants each of array capacity ranging from & above 20 kWp to 90 kWp cumulative array capacity:1 MWp including five (5) years Comprehensive Maintenance on turnkey basis at various locations of West Bengal** in response to the **WBREDA /NIeT-17/23-24 Dated: 15.09.2023** for execution of the Project.

1. Object:

The object of this agreement is for the parties to the consortium herein to arrive at a strategic understanding with each other to pool their resources, cooperate with each other and jointly prepare and submit their tender as per terms & conditions of the NIeT No. **WBREDA /NIeT-17/23-24 Dated: 15.09.2023** for taking up the work of against the tender of title Design & Engineering, Manufacture / Procurement, Testing, Supply, Installation and Commissioning of Roof Top Grid Connected Solar PV Power Plants each of array capacity ranging from & above 20 kWp to 90 kWp cumulative array capacity:1 MWp including five (5) years Comprehensive Maintenance on turnkey basis at various locations of West Bengal

2. Exclusivity:

- 2.1 The Parties to the consortium herein agree that no party shall, consequent to the successful bidding, withdraw from this Agreement during the execution of the Project in connection with the **“Design and engineering, manufacture/procurement, testing, supply installation and commissioning, 5years comprehensive maintenance for 990 nos. of grid connected rooftop Solar PV power plants, each of array capacity 10kWp on turnkey basis”** for any reason, whatsoever.
- 2.2 The Parties herein also have represented and assured each other that they will abide by and be bound by the terms and conditions stipulated by WBREDA for awarding the work of against the tender of title **“Design and engineering, manufacture/procurement, testing, supply installation and commissioning, 5years comprehensive maintenance for 990 nos. of grid connected rooftop Solar PV power plants, each of array capacity 10kWp on turnkey basis”** for execution of the Project including signing contract with all stake holders in the execution of this Agreement and the above-mentioned Contract under the tender of title **“Design and engineering, manufacture/procurement, testing, supply installation and commissioning, 5years comprehensive maintenance for 990 nos. of grid connected rooftop Solar PV power plants, each of array capacity 10kWp on turnkey basis.”**

3. Project Coordinator:

The Parties hereby agree that the Party of the First Part shall act as the **“Lead Member”** for self and on behalf of the other parties and shall enter into and execute the Agreement for the work against the tender of title **“Design and engineering, manufacture/procurement, testing, supply installation and commissioning, 5years comprehensive maintenance for 990 nos. of grid connected rooftop Solar PV power plants, each of array capacity 10kWp on turnkey basis”** in response to the NIeT No. WBREDA/NIeT-04/20-21 issued by WBREDA for itself and on behalf of the other parties. The parties herein further declare and confirm that they are jointly and severally bound to WBREDA for execution of the Agreement for the work against the tender for of title **“Design and engineering, manufacture/procurement, testing, supply installation and commissioning, 5years comprehensive maintenance for 990 nos. of grid connected rooftop Solar PV power plants, each of array capacity 10kWp on turnkey basis”** in response to the WBREDA/NIeT-04/20-21 issued by WBREDA in accordance with its terms and shall jointly and severally be liable to WBREDA to perform and abide all contractual obligations, including technical guarantees mentioned therein and in this Agreement. The **Lead Member** is authorized to incur all liabilities and receive instructions for and on behalf of any or all **Members** of the Consortium.

4. Responsibilities and Obligations of the Parties:

It is the primary responsibilities and obligations of the Lead Member of the Consortium to complete the project in all respect and other follow up activities during Maintenance and defect liability period as per terms and conditions of the tender. However, the said responsibility shall also be borne by each of the Parties individually or jointly to complete the entire project in all respects and also shall operate and maintain the project till the expiree of the defect liability period of **five (05)** years as per terms of the Tender.

5. Co-operation:

- 5.1 The **Lead Member** undertakes to cooperate with the other Parties in order to ensure smooth performance and execution of the Project and the Agreement for the work against the tender for of title **“Design and engineering, manufacture/procurement, testing, supply installation and commissioning, 5years comprehensive maintenance for 990 nos. of grid connected rooftop Solar PV power plants, each of array capacity 10kWp on turnkey basis”** in response to the NIeT No. WBREDA/NIeT-04/20-21. The **Lead Member** undertakes to provide WBREDA with all information at its disposal for due performance of the Agreement for the work against the tender of title **“Design and engineering, manufacture/procurement,**

testing, supply installation and commissioning, 5years comprehensive maintenance for 990 nos. of grid connected rooftop Solar PV power plants, each of array capacity 10kWp on turnkey basis” in response to the WBREDA/NIEt-04/20-21. The Parties to the consortium herein also undertake to share timely information among themselves and with WBREDA regarding any financial problems / crisis /turmoil or any working capital problem which includes non-payment to the vendors or other impediments which may have an impact on the timely execution of the Project or performance of the Agreement for the work against the tender of title **“Design and engineering, manufacture/procurement, testing, supply installation and commissioning, 5years comprehensive maintenance for 990 nos. of grid connected rooftop Solar PV power plants, each of array capacity 10kWp on turnkey basis”** in response to the NIEt No. WBREDA/NIEt-04/20-21 and shall take all remedial measures to ensure successful performance of all the obligations of the consortium hereto and under the Agreement for the work against the tender of title **“Design and engineering, manufacture/procurement, testing, supply installation and commissioning, 5years comprehensive maintenance for 990 nos. of grid connected rooftop Solar PV power plants, each of array capacity 10kWp on turnkey basis”** in response to the NIEt No. WBREDA/NIEt-04/20-21.

- 5.2 Notwithstanding the liability of **Lead Member** in terms of this Agreement, each Party shall be fully responsible, liable and accountable for all financial transactions under this Agreement and the Agreement for the work against the tender of title **“Design and engineering, manufacture/procurement, testing, supply installation and commissioning, 5years comprehensive maintenance for 990 nos. of grid connected rooftop Solar PV power plants, each of array capacity 10kWp on turnkey basis”** in response to the NIEt No. WBREDA/NIEt-04/20-21 and each Party shall pay its own taxes and make other statutory and mandatory payments / taxes / duties. The Parties herein further undertake to ensure that all applicable legal regulations are observed, appropriate records are to be kept for all financial transactions and appropriate documentation, including, but not limited to contracts, orders and confirmations, receipts and invoices, time sheets of staff and payroll calculations are retained for all matters pertaining to this Agreement and the Agreement for the work against the tender of title **“Design and engineering, manufacture/procurement, testing, supply installation and commissioning, 5years comprehensive maintenance for 990 nos. of grid connected rooftop Solar PV power plants, each of array capacity 10kWp on turnkey basis”** in response to the NIEt No. WBREDA/NIEt-04/20-21.
- 5.3 The **Lead Member** shall be responsible to maintain contact with WBREDA and request clarification, guidance or advice whenever needed. The other Parties to the consortium herein shall route all their requests with regard to clarification and guidance through the Lead Member.

5.45.4

The Lead Member undertakes to receive all payment from WBREDA pertaining to this agreement on behalf of all parties to the Consortium and Lead Member is solely responsible to disburse the same for meeting all liabilities of the project which includes distribution of agreed margin among the parties of the consortium. However, on account of non-payment of any dues to the parties to the Consortium or to the vendor of the project by the Lead Member shall not make WBREDA responsible and no liability cannot be imposed by any parties to the Consortium or vendors on WBREDA.

6. Applicable Law:

This Consortium Agreement shall be governed, construed and interpreted in accordance with the applicable laws of India and the Courts in Kolkata shall have the exclusive jurisdiction in all matters /legal dispute originating out of this Agreement.

7.Part of Contract:

It is further agreed by the Parties herein that this Consortium Agreement shall be irrevocable and shall form an integral part of the Agreement the work against the tender of title “**Design and engineering, manufacture/procurement, testing, supply installation and commissioning, 5years comprehensive maintenance for 990 nos. of grid connected rooftop Solar PV power plants, each of array capacity 10kWp on turnkey basis**” in response to the NIEt No WBREDA/NIEt-04/20-21 and shall continue to be enforceable against the Parties herein by the wok against the tender of title “**Design and engineering, manufacture/procurement, testing, supply installation and commissioning, 5years comprehensive maintenance for 990 nos. of grid connected rooftop Solar PV power plants, each of array capacity 10kWp on turnkey basis**” in response to the NIEt WBREDA/NIEt-04/20-21 are fulfilled. It shall be effective on the date first mentioned above for all purposes and intends.

IN WITNESS WHEREOF, the Parties herein have through their respective authorized representatives have executed these presents and affixed their hands and common seal/legal seal of the respective companies /firm / legal entities on the day, month and year aforementioned.

7. Number of Constituents of Consortium:

The total numbers of entities/individuals comprising consortium shall not exceed two.

Signed, Sealed & Delivered by:

Sri _____

On behalf of _____

(Designation)

In presence of:

WITNESSES -

1.

2.

Authorised Signatory
With Seal

Signed, Sealed & Delivered by:

Sri _____

On behalf of _____

(Designation)

In presence of:

WITNESSES -

1.

2.

Authorized Signatory
With Seal

POWER OF ATTORNEY FOR LEAD MEMBER OF CONSORTIUM

[To be executed on non-judicial stamp paper of appropriate value (minimum 100/-) as per Stamp Act relevant to place of execution and Duly Notarized]

Whereas the (“The Authority”) has invited applications from interested parties for the Project (the “Project”).

Whereas,,, and (Collectively the “Consortium”) being Members of the Consortium are interested in bidding for the Project in accordance with the terms and conditions of the Notice Inviting Tender (NIeT), Tender Document and other connected documents in respect of the Project,

And

Whereas, it is necessary for the Members of the Consortium to designate one of them as the Lead Member with all necessary power and authority to do for and on behalf of the Consortium, all acts, deeds and things as may be necessary in connection with the Consortium’s bid for the Project and its execution.

NOW THEREFORE KNOW ALL MEN BY THESE PRESENTS We, having our registered office at, M/s. having our registered office at....., [Name of the Consortium member company] (hereinafter collectively referred to as the “Principals”) do hereby irrevocably designate nominate, constitute, appoint and authorize M/S having its registered office at, [Name of the Consortium member company] being one of the Members of the Consortium, as the Lead Member and true and lawful attorney of the Consortium (hereinafter referred to as the “Attorney”).

We hereby irrevocably authorize the Attorney (with power to sub-delegate) to conduct all business for the tender of title **“Design and engineering, manufacture/procurement, testing, supply installation and commissioning, 5years comprehensive maintenance for 990 nos. of grid connected rooftop Solar PV power plants, each of array capacity 10kWp on turnkey basis.”** in response to the NIeT No. WBREDA/NIeT-04/20-21 issued by West Bengal Renewable Energy Development Agency (WBREDA) for and on behalf of the Consortium and any one of us during the bidding process and, in the event the Consortium is awarded the concession /contract, during the execution of the Project and in this regard, to do on our behalf and on behalf of the Consortium, all or any of such acts, deeds or things as are necessary or required or incidental to the prequalification of the Consortium and submission of its bid for the Project, including but not limited to signing and submission of all applications, bids and other documents and writings, accept the Letter of Award, participate in bid and other conferences, respond to queries, submit information/ documents, sign and execute contracts and undertakings consequent to acceptance of the bid of the Consortium and generally to represent the Consortium in all its dealings with the Authority, and/ or any other Government Agency or any person, in all matters in connection with or relating to or arising out of the Consortium’s bid for the Project and/ or upon award thereof till the Concession Agreement is entered into with the Authority.

AND hereby agree to ratify and confirm all acts, deeds and things done or caused to be done by our said Attorney pursuant to and in exercise of the powers conferred by this Power of Attorney and that all acts, deeds and things done by our said Attorney in exercise of the powers hereby conferred shall and shall always be deemed to have been done by us/ Consortium.

IN WITNESS WHEREOF WE THE PRINCIPALS ABOVE NAMED HAVE EXECUTED THIS POWER OF ATTORNEY ON THIS DAY OF.....2021.

For (Signature)

.....(Name & Title)

Accepted by on behalf of Lead Member

.....(Signature)

.....(Name & Title)

Witness

1.

2.

To be executed by members of Consortium

Section – V-B

NieT No: WBREDA/NieT-09/20-21 dt: 08.10.2021

ANNEXURES

SI No	Annexure Name	Annexure No
01.	'Letter of Award' of Contract for Supply of Equipment/ Materials	Annexure-1
02	'Letter of Award' of Contract for Erection of Equipment/ Materials	Annexure-2
03	Proforma of Contract Agreement	Annexure-3
04	Proforma of Bank Guarantee for Contract Performance (applicable for bidder who will get LoA)	Annexure-4
05	Proforma for Extension o f Bank Guarantee	Annexure-5
06	Proforma of Indemnity Bond	Annexure-6
07	Proforma of Additional Performance Security	Annexure-7

'Letter of Award of Contract' for Supply of Equipment/ Materials
(This form shall apply for First Contract)

Ref No:

Date:

.....
...Contractor's Name & Address.....
.....

Attn: Mr

**Sub: Letter of Award of Contract for..... (Work Name)
..... as per Bid Document No.....**

Dear Sir,

1. This has reference to the following :

- a. Our NIE T.dated.....
- b. E-Tender ID.
- c. Bidding Documents for the subject comprising the following :
 - i.(List out all the Sections of the Bidding Documents along with Tender Drawings etc.)
 - ii. Errata/Amendment No..... to.....(Name of Section of the Bidding Documents to which Errata/Amendment pertains)..... issued vide no.....dated..... and uploaded (*Applicable only if any Errata/Amendment to the Bidding Documents has been issued subsequently*)
- d. Clarifications furnished on the Bidding Documents vide no.....dated and uploaded (*Applicable only if any clarification to the Bidding Documents has been issued subsequently*)
To be included as further sub-paragraphs any other correspondence made after uploading of bidding documents up to the date of bid opening
- e. Your Proposal for the subject work submitted vide Bid Id No:
- f. Our Fax message/letter No. dated.....regarding extension of validity of bid and that of the Bank Guarantee towards Bid Security. (*Applicable only if any extension has been sought subsequently*)
(To be Included as further sub-paragraphs any other correspondence made to or by the bidder after bid opening)
- g. Our Fax message/letter No. dated.....inviting you for post bid discussions.
- h. Post bid discussions and meetings we had with you from to resulting into the following
- i. Minutes of Meeting enclosed herein with this Letter of Award:
 - i. Minutes of Meeting regarding Commercial issues (APPENDIX.....)
 - ii. Minutes of Meeting on Technical issues (APPENDIX.....)
 - iii. Minutes of Meeting regarding Work Schedule (APPENDIX.....)
 - iv. Minutes of Meeting regarding Quality Assurance Aspects (APPENDIX.....)

2. We confirm having accepted your proposal submitted vide your bid id no:..... dated and its modification vide letter no..... dated (Delete if not applicable) read in conjunction with all the specifications, terms & conditions of the Bidding Documents, Your subsequent letters (Use if relevant) and agreed Minutes of Meeting referred to in para 1.0 above and award on you the Contract for the scope of work covering

.....
(Indicate Scope of Work)

(hereinafter referred to as the 'First Contract').

3. We have also notified you vide our Letter of Award No..... dated.....and Letter of Award No.....dated. for award of 'Second Contract' on you for the work of..... (Indicate brief scope of work of the Second Contract)for(Name of Work)as per Bid Document No..... (hereinafter referred to as the 'Second Contract'). You shall also be fully responsible for the works to be executed under the 'Second Contract' and it is expressly understood and agreed by you that any breach under the 'Second Contract' shall automatically be deemed as a breach of this 'First Contract' and vice-versa and any such breach or occurrence or default giving us a right to terminate the 'Second Contract' and/or recover damages there under, shall give us an absolute right to terminate this Contract and/or recover damages under this 'First Contract' as well and vice-versa. However, such breach or default or occurrence in the 'Second Contract' shall not automatically relieve you of any of your responsibility/obligations under this 'First Contract'. It is also expressly understood and agreed by you that the equipment/materials to be supplied by you under this 'First Contract' when installed and commissioned under the 'Second Contract' shall give satisfactory performance in accordance with the provisions of the Contract.
4. The total Contract Price for the entire scope of work under the Contract shall be(Specify the amount in INR)..... as per the following break up

i.	Ex- works price for Main Equipment/material
ii.	Transportation including Insurance charges
iii.	Type Test Charges
iv.	Taxes (e.g. GST etc.)
TOTAL (i + ii + iii+ iv)	
(..... (Specify the total amount in words))		

5. Date of Commencement & Completion Period:
 The Contract shall be executed within the specified time given commencing from the date of LoA.

Sl.No	Particulars	Completion time (months)

The time and date of completion is the essence of this contract. You are required to organize your resources and perform your work

6. You shall prepare and finalise the Contract Documents for signing of the formal Contract Agreement and shall enter into the Contract Agreement with us, as per the proforma enclosed

with the Bidding Documents, on non-judicial stamp paper of appropriate value within.....
(Specify) days from the date of this Letter of Award.

7. This Letter of Award is being issued to you in original. We request you to return its photocopy duly signed and stamped on each page including all the enclosed Appendices, by the authorised signatory of your company as a proof of your acknowledgement and confirmation.

Please take the necessary action to commence the work and confirm action.

Yours faithfully,

(Authorised Signatory)

Encl:As above.

'Letter of Award of Contract' for Erection of Equipment/ Materials
(This form shall apply for Second Contract)

Ref No:Date:

.....
 ...Contractor's Name & Address.....

Attn: Mr

Sub: Letter of Award of Contract for Inland Transportation, Erection/ Installation, Testing, Commissioning and conducting Guarantee tests of..... (Name of the Work) as per Bid Document No.....

Dear Sir,

1. This has reference to the following :
 - a. Our NIE.T.dated.....
 - b. E-Tender ID.
 - c. Bidding Documents for the subject comprising the following :
 - i.(List out all the Sections of the Bidding Documents along with Tender Drawings etc.)
 - ii. Errata/Amendment No..... to..... (Name of Section of the Bidding Documents to which Errata/Amendment pertains)..... issued vide no.....dated..... and uploaded (*Applicable only if any Errata/Amendment to the Bidding Documents has been issued subsequently*)
 - d. Clarifications furnished on the Bidding Documents vide no.....dated and uploaded (*Applicable only if any clarification to the Bidding Documents has been issued subsequently*)
To be included as further sub-paragraphs any other correspondence made after uploading of bidding documents up to the date of bid opening
 - e. Your Proposal for the subject work submitted vide Bid Id No:
 - f. Our Fax message/letter No. dated.....regarding extension of validity of bid and that of the Bank Guarantee towards Bid Security. (*Applicable only if any extension has been sought subsequently*)
(To be Included as further sub-paragraphs any other correspondence made to or by the bidder after bid opening)
 - g. Our Fax message/letter No. dated.....inviting you for post bid discussions.
 - h. Post bid discussions and meetings we had with you from to resulting into the following
 - i. Minutes of Meeting enclosed herein with this Letter of Award:
 - i. Minutes of Meeting regarding Commercial issues (APPENDIX.....)
 - ii. Minutes of Meeting on Technical issues (APPENDIX.....)
 - iii. Minutes of Meeting regarding Work Schedule (APPENDIX.....)

iv. Minutes of Meeting regarding Quality Assurance Aspects (APPENDIX)

2. We confirm having accepted your proposal submitted vide your bid id no:..... dated and its modification vide letter no.....dated (Delete if not applicable) read in conjunction with all the specifications, terms & conditions of the Bidding Documents, Your subsequent letters (Use if relevant) and agreed Minutes of Meeting referred to in para 1.0 above and award on you the Contract for the scope of work covering

.....(Indicate Scope of Work)
 (hereinafter referred to as the 'Second Contract').

3. We have also notified you vide our Letter of Award No. dated..... for award of 'First Contract' on you for the work of.....(Indicate brief scope of work of the First Contract)for(Name of Work)as per Bid Document No..... (hereinafter referred to as the 'First Contract'). You shall also be fully responsible for the works to be executed under the 'First Contract' and it is expressly understood and agreed by you that any breach under the 'First Contract' shall automatically be deemed as a breach of this 'Second Contract' and vice-versa and any such breach or occurrence or default giving us a right to terminate the 'First Contract' and/or recover damages there under, shall give us an absolute right to terminate this Contract and/or recover damages under this 'Second Contract' as well and vice-versa. However, such breach or default or occurrence in the 'First Contract' shall not automatically relieve you of any of your responsibility/obligations under this 'Second Contract'. It is also expressly understood and agreed by you that the Equipment/ Materials to be supplied by you under 'First Contract' when installed and commissioned under the 'Second Contract' shall give satisfactory performance in accordance with the provisions of the Contract.

4. The total Contract Price for the entire scope of electrical erection work under the Contract shall be(Specify the amount in INR).....as per the following break up

i.	Erection charges inclusive of unloading & insurance, testing & commissioning
ii.	Taxes (e.g.GST etc.)
TOTAL (i + ii)	
(..... (Specify the total amount in words)))		

5. Date of Commencement & Completion Period:

The Contract shall be executed within the specified time given commencing from the date of LoA.

Sl.No	Particulars	Completion time (months)
-------	-------------	--------------------------

The time and date of completion is the essence of this contract. You are required to organize your resources and perform your work

6. You shall prepare and finalise the Contract Documents for signing of the formal Contract Agreement and shall enter into the Contract Agreement with us, as per the proforma enclosed with the Bidding Documents, on non-judicial stamp paper of appropriate value within..... (Specify) days from the date of this Letter of Award.
7. This Letter of Award is being issued to you in duplicate. We request you to return its duplicate copy duly signed and stamped on each page including all the enclosed Appendices, by the authorised signatory of your company as a proof of your acknowledgement and confirmation.

Please take the necessary action to commence the work and confirm action.

Yours faithfully,

(Authorized Signatory)

Encl: As above.

Proforma of Contract Agreement

(To be executed on Non-Judicial Stamp Paper of Rs.100/-)

THIS CONTRACT AGREEMENT is made theday of....., 20.....
BETWEEN

Articles of agreement made on this.....day of.....in the yearbetween
WBREDA having its head office at Bikalpa Shakti Bhavan, J1/10, Block – EP&GP ,Sector – V ,
Salt Lake Electronics Complex, Kolkata -700091herein after referred s 'WBREDA' (which
expression shall unless excluded by or repugnant to the context be deemed to include its
successors and assigns) of the OF THE FIRST PART ,
and

..... [**Name of Contractor**]....., a company incorporated under the laws of
.....[country of Contractor]..... and having its principal place of business at
.....[address of Contractor]..... (Hereinafter called “the Contractor”) which expression
shall include its successors and permitted assigns OF THE SECOND PART.

WHEREAS the Purchaser desires to engage the Contractor to design, manufacture, test, deliver,
install, complete and commission and conduct guarantee tests of certain Works, viz.
.....[list of Works](“the Works”) and the Contractor have agreed to such
engagement upon and subject to the terms and conditions hereinafter appearing.

NOW IT IS HEREBY AGREED as follows:

Article1. Contract Documents

1.1. Contract Documents as per Tender Document:

The following documents shall constitute the Contract between the Purchaser and the
Contractor, and each shall be read and construed as an integral part of the Contract:

- a. This Contract Agreement and the Appendices hereto
- b. Letter of Award including all documents referred to therein
- c. Special Conditions of Contract
- d. General Conditions of Contract
- e. Technical Specifications and Drawings
- f. Bid form and Price Schedules and Annexure (Section VIIA and Section
VIIB)submitted by the Contractor

1.2. Order of Precedence as per tender document

In the event of any ambiguity or conflict between the Contract Documents listed
above, the order of precedence shall be the order in which the Contract Documents
are listed in Article 1.1 (Contract Documents) above

1.3. Definitions as per tender document

Capitalized words and phrases used herein shall have the same meanings as are
ascribed to them in the General Conditions of Contract.

Article2. Contract Price and Terms of Payment

2.1. Contract Price as per tender document:

The Purchaser hereby agrees to pay to the Contractor the Contract Price in consideration of the performance by the Contractor of its obligations hereunder. The Contract Price shall be [Amount of Indian Rupees in words].....,[amount in figures]....., or such other sums as may be determined in accordance with the terms and conditions of the Contract.

2.2. Terms of Payment as per tender document

The terms and procedures of payment according to which the Purchaser will reimburse the Contractor are given in Appendix 1 (Terms and Procedures of Payment) hereto.

Article3. Effective Date for determining Time for Completion

3.1. Effective Date as per tender document:

The Time of Completion of the Works shall be determined from the date of Letter of Award provided all of the following conditions have been fulfilled within a period of two (2) months from the date of said Letter of Award

- a. This Contract Agreement has been duly executed for and on behalf of the Purchaser and the Contractor;
- b. The Contractor has submitted to the Purchaser the performance security, and the advance payment guarantee;
- c. The Purchaser has paid the Contractor the initial advance payment.

Each party shall use its best efforts to fulfil the above conditions for which it is responsible as soon as practicable

3.2. If the conditions listed under 3.1 are not fulfilled within two (2) months from the date of Letter of Award because of reasons attributable to the Purchaser, the Contract would become effective only from the date of fulfillment of all the above mentioned conditions and, the parties shall discuss and agree on an equitable adjustment to the Contract Price and the Time for Completion and/or other relevant conditions of the Contract.

3.3. However, if any of the conditions listed under 3.1 above are not fulfilled within two (2) months from the date of Letter of Award because of the reasons attributable to the Contractor, the Contract will become effective from the date of Letter of Award. In this case, contract Price and/or time of completion shall not be adjusted.

3.4. It is expressly understood and agreed by and between the Contractor and the Purchaser that the Purchaser is entering into this Agreement solely on its own behalf and not on behalf of any other person or entity. In particular it is expressly understood and agreed that the Government is not a party to this Agreement and has no liabilities, obligations or rights hereunder. It is expressly understood and agreed that the Purchaser is an Independent legal entity with power and authority to enter

into contracts solely on its own behalf under the applicable laws of India and the general principles of Contract Law. The Contractor expressly agrees, acknowledges and understands that the Purchaser is not an Agent, Representative or Delegate of the Government. It is further understood and agreed that the Government of West Bengal is not and shall not be liable for any acts, omissions, commissions, breaches or other wrongs arising out of the Contract. Accordingly, the Contractor expressly waives, releases and foregoes any and all actions or claims, including cross claims, impleader claims or counter claims against the Government arising out of this Contract and covenants not to sue the Government as to any manner, claim, cause of action or thing whatsoever arising of or under this Agreement.

3.5. Appendices

The Appendices listed in the attached list of Appendices shall be deemed to form an integral part of this Contract Agreement. Reference in the Contract to any Appendix shall mean the Appendices attached hereto, and the Contract shall be read and construed accordingly.

IN WITNESS WHEREOF the Purchaser and the Contractor have caused this Agreement to be duly executed by their duly authorized representatives the day and year first above written.

Signed by for and on behalf of the Purchaser

.....
[Signature]

.....
[Title]

In the presence of

..... (Signature, Name and Title)

Signed by for and on behalf of the Contractor

.....
[Signature]

.....
[Title]

In the presence of

..... (Signature, Name and Title)

Appendices:

1. Terms and Procedures of Payment
2. Price Variation
3. Insurance Requirements
4. Time Schedule
5. Scope of Works by the Purchaser

PROFORMA OF BANK GUARANTEE FOR CONTRACT PERFORMANCE

(To be executed in non-judicial stamp paper of Rs.100/-)

Ref.....
Bank Guarantee No.....

Date:.....

To

.....

.....

..... West Bengal

Dear Sirs,

In consideration of WBREDA, (herein after referred to as the "Owner" which expression shall unless repugnant to the context or meaning there of include its successors, administrators and assigns) having awarded to M/s..... with registered/Head office at.....(hereinafter referred to as "Contractor" which expression shall unless repugnant to the context or meaning thereof include its successors, administrators, executors and assigns), a Contract issued by Owner's Letter _____ of _____ Award No.....dated.....for...
.....(scope of work) and the same having been acknowledged by the Contractor, resulting in a Contract bearing No.....dated.....Contractor having agreed to provide a Contract Performance Guarantee for the faithful performance of the entire Contract equivalent to Rs.....(.....in words.....) being (10%) (ten percent)of the said value of the Contract to the Owner.

We.....
(Name & Address) having its Head Office at.....(hereinafter referred to as the "Bank", which expression shall, unless repugnant to the context or meaning thereof, include its successors, administrators, executors and assigns) do hereby guarantee and undertake to pay the Owner, on demand any or all monies payable by the Contractor to the extent of Rs.....(.....in words.....)as aforesaid at any time up to.....* (day/month/year) without any demur, reservation, contest, recourse or protest and/or without any reference to this Contractor.

Any such demand made by the Owner on the bank shall be conclusive and binding not withstanding any difference _____ between the Owner and the Contractor or any dispute pending before any Court, Tribunal, Arbitrator or any other authority. The Bank undertakes not to revoke this guarantee during its currency without previous consent of the Owner and further agrees that the guarantee herein contained shall continue to be enforceable till the Owner discharges this guarantee.

The Owner shall have the fullest liberty without affecting in any way the liability of the Bank

under the guarantee from time to time to extend the time for performance or the Contract by the Contractor. The Owner shall have the fullest liberty, without affecting this guarantee, to postpone from time to time the exercise of any powers vested in the mor of any right which they might have against the Contractor and to exercise the same at any time in any manner and either to enforce or to forbear to enforce any covenants, contained or implied in the Contract between the Owner and the Contractor or any other course or remedy or security available to the Owner. The Bank shall not be relieved of its obligations under these presents by any exercise by the Owner of its liberty with reference to the matters aforesaid or any of the mor by reason of any other act of omission or commission on the par t of the Owner or any other indulgences shown by the Owner or by any other matter or thing whatsoever which under law would, but for this provision have the effect of relieving the Bank.

The bank also agrees that the Owner at its option shall be entitled to enforce this guarantee against the Bank as a principal debtor, in the first instance without proceeding against the Contractor and notwithstanding any security or other guarantee the Owner may have in relation to the Contractor's liabilities.

Notwithstanding anything contained hereinabove our liability under this guarantee is restricted to Rs..... (.....in words.....) and it shall remain in force upto and including**(day/month/year) and shall be extended from time to time for such period as may be desired M/s.....on whose behalf this guarantee has been given.

Unless a demand or claim is lodged on us within and including.....*(day/month/year) we shall be discharged from all liabilities thereafter.

Dated this..... day of20.....at.....

WITNESS

.....
(Signature)

.....
(Signature)

.....
(Name)

.....
(Name)

.....
(Official Address)

.....
(Official Address)

Attorney as per Power Of Attorney No.....
Date.....

* Till3(three)months after the validity of the Bank Guarantee.

**Upto3(three)months after the expiry of warranty/guarantee period.

Notes:

1. The stamp paper of appropriate value shall be purchased in the name of issuing bank.
2. The sum shall be as per terms of the contract
3. `The performance Bank Guarantee/Contract Performance Bank Guarantee shall be valid as per terms of contract. A period of three(3) months should be added as claimed period from the last date of validity of the Bank Guarantee.

PROFORMA FOR EXTENSION OF BANK GUARANTEE

Ref......

Date.....

To

.....

.....

.....

West Bengal

Sub: Extension of Bank Guarantee No.....for Rs..... favoring yourselves, expiring on.....on account of M/s.....in respect of Contract No.....dated.....(hereinafter called original Bank Guarantee).

Dear Sirs,

At the request of M/s.....,We.....Bank, branch office at.....and having its Head Office at.....do hereby extend our liability under the above mentioned Bank Guarantee No.....dated..... for a further period of.....(Years/Months)from..... to expire on.....Expect as provided above, all other terms and conditions of the original bank guarantee No.....dated. shall remain unaltered and binding.

Please treat this as an integral part of the original bank guarantee to which it would be attached. Yours faithfully,

For

Manager/Agent/Accountant.....Power of Attorney

No..... Dated.....

SEAL OF BANK

NOTE: The non-judicial stamp paper of appropriate value shall be purchased in the name of the bank who has issued the Bank Guarantee.

PROFORMA OF INDEMNITY BOND

(To be executed on Non-Judicial Stamp Paper of Rs.100/-)

BY THE PRESENT INDEMNITY BOARD EXECUTED by me/us on this.....Day of.....20....., I/We having Registered Office / residing at.....(herein after called "OBLIGOR/ OBLIGORS" which expression shall mean and includes my/our successors legal representatives, assigns) do hereby binds myself/ourselves and also our company/firm..... after having the power to bind so with the promise and undertaking in favour of the WBREDA having head office at Bikalpa Shakti Bhavan, J1/10, Block – EP&GP ,Sector – V , Salt Lake Electronics Complex, Kolkata - 700091(hereinafter called as OBLIGEE, which expression shall mean and include it's legal representative, administrators assigns.

Whereas OBLIGOR/OBLIGORS has/have been awarded to execute the job/works under letter no.....dated.....issued by the OBLIGEE after having observing necessary formalities, the details of which is described in the schedule given hereunder as per letter mentioned herein-above and where as the said job/works will be/likely to be done in places covered under Employees' State Insurance Act(ESI)and/or the Employee Compensation Act, 1923(W.C. Act) and/or other laws relating to the Labour Management and Welfare.

And whereas according to the condition of the contract the OBLIGOR/OBLIGORS is/are under obligation to execute this Indemnity Bond before the commencement of actual execution and OBLIGOR/OBLIGORS is/are aware that unless this Indemnity Bond is executed in accordance with the condition of contract before the actual execution in accordance with law the OBLIGEE shall have the power to deem that actual work has been stated within the meaning of the contract before the execution of this Indemnity Bond.

Now this indenture witnesses that I/we the OBLIGOR/OBLIGORS do hereby undertake:

1. THAT the OBLIGEE shall not be held responsible for any type of accident which may take place during the course of work under taken by the OBLIGOR/OBLIGORS.
2. THAT the OBLIGOR/OBLIGORS will take/adopt all safety norms in respect of each and every workmen labour personnel according to the rules or to the satisfaction of the OBLIGEE INALLCASES.
3. That the OBLIGOR/OBLIGORS undertakes/undertake to engage only those labour worker or any other personnel whether skilled or unskilled or any other person whether in technical management or non-managerial or any other capacity in the area covered under Employee' State Insurance Act,1948 who has/have insurance coverage within the meaning of Employees' State Insurance Act and further undertakes NOT to engage any person in the area covered under Employees State Insurance Act., who does/do not has/have insurance coverage within the meaning of Employees' State Insurance Act,1948.
4. That the OBLIGOR/OBLIGORS further undertakes/undertake to engage only those labour, worker, or any other personnel, whether skilled or unskilled, whether in technical, managerial or non-managerial or any other capacity in the area NOT covered under

Employees' State Insurance Act 1948, who has life insurance for the sum assured equivalent to the amount of Compensation under the Employees Compensation Act in case of accidental death or inquiry and such insurance has been effected by the OBLIGOR/OBLIGORS.

5. THAT the OBLIGOR/OBLIGORS undertakes/undertake to indemnify and keep harmless the OBLIGEE from all claims, action, proceedings and of risk, damage, danger to any person whether belonging to/or not belonging to OBLIGOR/OBLIGORS.
6. THAT the OBLIGOR/OBLIGORS shall keep harmless the OBLIGEE from all claims, compensation, damages, any proceedings in respect of any of its employee/workmen under the Employee Compensation Act or any other laws for the time being in force.
7. THAT, if during the course of execution of work as stated in the letter mentioned herein above issued by the OBLIGEE, it is found that the OBLIGOR/OBLIGORS has/have not complied with guidelines/formalities within the meaning of Employees' State Insurance Act or Employee Compensation Act or any other laws relating to the Labour Welfare for the time being in force, and also has not observed the safety norms in accordance with the law to the satisfaction of the OBLIGEE, the OBLIGEE shall have the right to stop the execution of work/job and the period of such stoppage shall continue till adequate safety and other compliance mentioned hereinabove under the labour welfare legislation have been observed and such period of stoppage shall not be taken into account for the calculation of the total period of completion of work for which the OBLIGOR/OBLIGORS is responsible to complete the work/job and it will be deemed that discontinuance was due to default of OBLIGOR/OBLIGORS.
8. THAT, if at any time, due to exigency, the OBLIGEE i.e. the WBREDA (WBREDA) as the Principal Employer, becomes liable to pay any such compensation mentioned hereinabove, whether on failure of the OBLIGOR/OBLIGORS or for any other reason, the OBLIGEE shall have the right to recover the said amount from any amount receivable by OBLIGOR/OBLIGORS or any bank guarantee deposited or anything payable whether in connection with this contract or other contract by the OBLIGEE to the OBLIGOR/OBLIGORS.
9. THAT the OBLIGOR/OBLIGATOR is/are aware and accept that for the persistent or repeated violation of any condition mentioned in this Indemnity Bond, the OBLIGEE shall have right to terminate the contract of work issued by the OBLIGEE to OBLIGOR/OBLIGATOR.

SIGNED AND DELIVERED

BY THE OBLIGOR/OBLIGORS

Signature

WITNESS:

1) Name & Designation
Signature

1) Name & Designation
Signature

PROFORMA OF BANK GUARANTEE FOR ADDITIONAL PERFORMANCE SECURITY

(To be stamped in accordance with Stamp Act)

Bank Guarantee No.....

Date:.....

To
The Superintending Engineer
WBREDA
Bikalpa Shakti Bhavan,
J-1/10, EP & GP, Block,
Salt Lake, Sector-V, Kolkata – 700 091

Dear Sirs,

In consideration of WBREDA, (herein after referred to as the “WBREDA” which expression shall unless repugnant to the context or meaning there of include its successors, administrators and assigns) is going to award an order for (name of the work) against NIT No..... dated.....towith registered/Head office at....., (hereinafter referred to as “Contractor” which expression shall unless repugnant to the context or meaning thereof include its successors, administrators, executors and assigns), and the Contractor having agreed to provide an Additional Performance Security @10% of the tendered value in terms of the provisions of the said NIT for faithful and due fulfillment of all obligations as laid down in Tender documents equivalent to Rs.....(Rupees (Value of BG) of the WBREDA.

We..... (Name & Address) having its Head Office at..... (hereinafter referred to as the “Bank”, which expression shall, unless repugnant to the context or meaning thereof, include its successors, administrators, executors and assigns) do hereby guarantee and undertake to pay the WBREDA, on demand any or all monies payable by the Contractor to the extent of Rs.....(..... in words.....)as a foresaid at any time up to.....* (day/month/year) without any demur, reservation, contest, recourse or protest and/or without any reference to this Contractor. Any such demand made by the WBREDA on the bank shall be conclusive and binding notwithstanding any difference between the WBREDA and the Contractor or any dispute pending before any Court, Tribunal, Arbitrator or any other authority. The Bank undertakes not to revoke this guarantee during its currency without previous consent of the WBREDA and further agrees that the guarantee herein contained shall continue to be enforceable within claim period of[ninety(90)]..... after the validity of this guarantee.

The WBREDA shall have the fullest liberty without affecting in any way the liability of the Bank under the guarantee from time to time to extend the time for performance or the Contract by the Contractor. The WBREDA shall have the fullest liberty, without affecting this guarantee, to postpone from time to time the exercise of any powers vested in them or of any right which they might have against the Contractor and to exercise the same at any time in any manner and either to enforce or to forbear to enforce any covenants, contained or implied in the Contract between the WBREDA and the Contractor or any other course or remedy or security available to the WBREDA. The Bank shall not be relieved of its obligations under these presents by any exercise by the WBREDA

of its liberty with reference to the matters aforesaid or any of them or by reason of any other act of omission or commission on the part of the WBREDA or any other indulgences shown by the WBREDA or by any other matter or thing whatsoever which under law would, but for this provision have the effect of relieving the Bank.

The Bank also agrees that the WBREDA at its option shall be entitled to enforce this guarantee against the Bank as a principal debtor, in the first instance without proceeding against the Contractor and notwithstanding any security or other guarantee the WBREDA may have in relation to the Contractor's liabilities.

Notwithstanding anything contained hereinabove our liability under this guarantee is restricted to Rs..... (.....in words.....) and it shall remain in force up to and including *(day/month/year) and shall be extended from time to time for such period as may be desired..... on whose behalf this guarantee has been given.

All right of WBREDA under this guarantee shall be forfeited and the Bank shall be relived and discharged from all liabilities there under unless a demand or claim is lodged by WBREDA under this guarantee against the Bank within[ninety(90)]... days from the above mentioned date or from the extended date.

Dated this..... day of20.....at.....

WITNESS

.....
(Signature)

.....
(Signature)

.....
(Name)

.....
(Name)

.....
(Official Address)

.....
(Official Address)

Attorney as per Power Of Attorney No..... Date.....

Note:

1. The stamp paper of appropriate value shall be purchased in the name of guarantee issuing bank or the party on whose behalf t5he Bank Guarantee is being issued. The bank Guarantee (BG) shall be issued on a stamp paper of value as applicable in the State of India from where BG has been issued or the State of India from where the BG shall be operated, whichever is higher.

Section – VI

NieT No.WBREDA /NieT-17/23-24 Dated: 15.09.2023

Technical Specification

for

Grid -Tied Solar PV Power Plant of Array Capacity 20-50 kWp

1.0 Outline of the scheme of the project :

- 1.1 The array capacity of the PV Power plant will be minimum **20 kWp**.
- 1.2 The PV array will be installed at the available space earmarked at project site.
- 1.3 The power from PV array will be feed into grid through a grid tied string inverter of minimum nominal capacity 20-90 kVA, 3Ø 415 V 50Hz AC.
- 1.4 Outputs of the grid-tied string inverter will be terminated to an **Inverter LT Panel** to be located close to the inverter.
- 1.5 The output of the **Inverter LT Panel** will be terminated and connected with supply mains through a **Grid interfacing LT Panel**.
- 1.6 An Energy Meter is to be installed at any suitable location at the output of Inverter LT panel and before connected to the mains to measure the energy, as produced from the PV Power Plant
- 1.7 The Grid–tied string Inverter, Inverter LT Panel, AJB, Energy Meter will be installed in suitable kiosk with proper security and protection with arrangement of proper shed (if required).
- 1.8 The SPV power plant to be installed should be Robust, Economic, Efficient and Time tested and having a good aesthetic view matched with the Building.
- 1.9 Site wise as built diagram including shadow analysis report to be submitted.

2.0 Solar PV Modules

The Cell of the Modules will be crystalline silicon. The capacity will be consider as per declared capacity in the published technical brochures of the proposed PV Module Manufacturer.

Minimum capacity of each **PV Module to be used is 144 cells - 550 Wp** (without any negative tolerance). Any higher capacity module, suitable for site , can be given.

The PV modules must qualify the relevant **IEC 61215 or IS 14286 and IEC 61730**. The proposed PV Module must have the Test Certificate issued from accredited test laboratories of MNRE Government of India under NSM Program. The test certificates issued from IEC accredited laboratories will also be acceptable.

The PV modules maker must be AIMM listed and Cell should be DCR cell.

Each PV module used in this solar power project must use an RF identification tag. The information must be mentioned in the RFID used on each module as per guideline of MNRE Government of India (This can be inside or outside the laminate, but must be able to withstand harsh environmental condition).

In case of any damage for MMS and / or Module will take place by cyclone or storm, the contractor has to do necessary repair / replacement works within six weeks of such occurrence at its own cost.

Warranty

- A. **Material Warranty:** 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 ten (10) years from the date of dispatch instruction by WBREDA or dispatch from the manufacturers factory, which-ever is later :
 - i. Defects and/or failures due to manufacturing

- ii. Defects and/or failures due to quality of materials
- iii. 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 Owner's sole option. The contractor (till defect liability period) shall be responsible to contact with the contractor if any of the above mentioned cases occurred.

B. Performance Warranty: The manufacturer should warrant the output of Solar Module(s) for at least 90% of its rated power output at the end of initial 10 years and 80% of its rated power at the end of the next 15 years from the date of dispatch instruction by WBREDA or dispatch from the manufacturers factory, which-ever is later. The contractor shall collect the Warranty Certificate for performance of the modules from the manufacturer and submit the same to WBREDA prior to delivery of the products to the respective sites.

Manufacturer of proposed PV modules must have the ISO 9001:2008 or ISO 14001 or latest available. Certification for their manufacturing unit should be for their said manufacturing item.

Note: Only indigenously manufactured PV modules should be used in Grid Connected Rooftop Solar PV Power Plants under this scheme. However, other imported components can be used, subject to adequate disclosure and compliance to specified quality norms and standards.

The contractor should submit the warrantee certificate issued by the original PV Module manufacturer to WBREDA after delivery of every lot. The warrantee shall include but not limited to the following:

- i) Capacity and model of the PV module,
- ii) PV Module serial no.
- iii) Warrantee period & Nature of warranty in details
- iv) Order reference of WBREDA
- v) Order description of WBREDA

The warranty certificate as issued by the PV Module manufacturer, must comply the terms of the tender warranty period and other terms of the tender.

Desired specification of the PV Module will include but not limited to the following:

Sl No	Item	Description
1.0	Certification	i) IS 14286:2010/IS 16077:2013/IEC 61215 ii) IS/IEC 61730(1,2):2004 iii)IEC 61701(Salt Mist) iv)IEC 62804(PID)
1.1	Type Test certificate	NABL/ IEC Accredited Testing Laboratories or
Sl No	Item	Description
	Issuing authority.	MNRE accredited test centers.
2.0	PV Cell	
2.1	Type	Crystalline Silicon Mono Perc ONLY
3.0	PV Module	
3.1	Rating at STC	Minimum capacity of each PV Module to be used is 144/72 cell, 540/335 Wp (without any negativetolerance).
3.2	Efficiency	Minimum 20%
3.3	Fill Factor	Minimum 80%
3.4	Withstanding voltage	1000V/1500 DC
3.5	PID	PID free Module
3.5	Glass	3.2 mm Thickness minimum
3.6	Bypass Diode	
3.6.1	Thickness	
3.6.2	Number	3 numbers (minimum)
3.7	Module Frame	
3.7.1	Type	Anodized aluminum frame 35 mm & above.
3.8	Module Junction Box	
3.8.1	Enclosure	IP 68 (min)
3,8.2	MC4 Connector	To be provided
3.8.3	Cable	Solar cable

Factory testing details of PV Module: The following (not limited to) minimum testing willbe done: EL Test , Power test using Sun simulator, IR & HV test.

3.0 **PV Array**

Desired specification of the PV Array will include but not limited to the following:

Sl No	Item	Description
1.0	Nominal Capacity	Minimum 20 kWp
2.0	PV Module interconnection connector	MC-4 / Tyco connector.
3.0	PV Module interconnection cable and array cable	PV 1-F standard /EN 50618
4.0	PV array String Voltage	Compatible with the MPPT Channel of the inverter

1. **PV Module Mounting Structure :** PV module mounting structure must be include but not limited to the following:

- The Module Mounting structure (MMS) may be made of Mild steel(MS)angle/Aluminum. As per latest IS:2062.
- Galvanization of MMS shall be in compliance of latest IS: 4759
- The PV MMS shall have to be designed and to be approved.
- The structural condition of the roof / Type of roof/ Type of roof treatment/Type of building i.e Heritage court building (if any) should be precisely assessed by the contractor before execution of the work and incase of any decision regarding availability of suitable shadow free and structural sound proof space the matter is toi be taken up with WBREDA in writing.

Based on the roof condition, PV Module Mounting Structure shall be as follows:

Type- I: Design with pedestal using anchor fastener for grouting of structure on the roof (Design & Drawing has been enclosed)

Type-II: Designed either considering dead load supported or self-supported structure depending upon the roof conditions.

Type-III Design dither considering Aluminum Structure depending on the slant/Incline roof/ tin shed

- Safety of the roof structure should be properly maintained all through the work. If any damages of the structure occurred by the contractor, the same shall mended by the contractor. The Contractor shall take suitable precautionary measure for prevention of water leakage either roof duet installation of PV Array
- The PV Module Mounting Structure shall be installed satisfying that rain water installation of the same
- For special type of roof the special type of structure shall be provided after getting approval from WBREDA.
- All structures including any metallic part the roof must be protected against ant corrosion. The structure must also be

compatible with the materials used in the module frame fasteners, fixture, nuts, bolts or any similar.

- The contractor shall have to submit the drawing of PV Module mounting structure supported by Staad- pro design (soft copy of the Staad profile is to be submitted) , wind loading calculation sheet ; duly certified by a Structural Engineer to WBREDA after placement of LOA for necessary approval. The decision of the Controlling Officer will be final in this regard.
- The PV array structure will be made of hot dip galvanized MS structure of minimum galvanizing thickness **85 micron**. No deviation will be allowed by WBREDA at the time of execution of the work.
- Structures will be supplied complete with all members to be compatible for allowing easy installation
- The PV Array structure will support SPV modules at the mentioned orientation and absorb, transfer the mechanical loads to the ground or any suitable/ existing strength structure as deemed fit.
- All fixture for supporting conduits shall be SS
- All nuts, bolts, spring, washers and flat washers used for fixing of Solar PV modules with MMS should be SS
- The floating base of the structure should be painted by good quality paint.
-)Standard design considerations i.r.o relevant wind zone may be applied, in line of given parameters/ information / instructions/standards, codes etc., as mentioned here in this tender document. Suitable fastening arrangement, such as grouting and clamping should be provided to ensure & secure the installation against the specific wind speed for the respective wind zone of the location where the PV Power plant to be proposed to be installed. The decision of the Engineer-in-Charge will be final in this regard.
- All structures including any ancillary metallic parts thereof must be protected against any corrosion. The structures must also be compatible with the materials used in the module frame, fasteners, fixtures, nuts, bolts etc. or any similar nature of metallic components whichever are required to complete the job, in all respect.
- All Nuts & Bolts, fasteners, jointing materials of PV Module mounting Structure, fixtures for supporting conduits etc shall be made with Stainless Steel (S S)or aluminum. Cable Tie must be of Insulated Copper Wire/SS tie for outdoor installations and for indoor/inside equipments/inside enclosure have to be of UV Protected PVC.
- Safety of the roof structure should be properly maintained all through the work. If any damages of the building roof structure occurred due to installation by the contractor, necessary rectification is to be made by the contractor for that damage only (caused by Solar Plant works) immediately at his own risk &cost
- In case of any damage for MMS and / or PV Module will take place by cyclone or storm, the contractor has to do necessary repair works within six weeks of such occurrence at its own cost.
- MMS ground clearance should be 300 mm
- Material should be provided for the MMS:

Sl	Items	Make
1	nuts, bolts, spring, washers and flat washers	Reputed make
2	Anchor bolt	Reputed make
3	Anchor Chemical	Reputed make
4	Cable Tie	Reputed make

PV Array Junction Box (AJB)

PV Array Junction Box (AJB) will have to be used for termination of string prior connecting array with inverter. There will be two Arrays Junction Box in case, the inverter is located elsewhere away from PV Array. Minimum one (01) number of PV Array Junction Box will be provided with each Power Plant. The desired specification of the PV Array Junction Box and accessories will include but not limited to the following:

Sl No	Item Description	Desired Data
1.0	Enclosure	
1.1	Degree of Protection	IP65 with UV Protected
1.2	Material	Polycarbonate.
1.3	Withstanding voltage	1000V/ 1500 V DC
1.5	Accessories mounting arrangement	DIN Rail or as suitable
1.6	Front cover	Transparent
1.7	Number of Strings entry	As may be required
2.0	Cable Entry and Exit	
2.1	Position	Bottom at cable entry and exit
2.2	Cable Entry and Exit connector type	MC 4 / Tyco Connector (as per suitability of PV Array String cable)
2.3	Cable gland	Earthing cable entry
3.0	Surge Protecting Device (SPD)	
3.1	Type	DC
3.2	Protection class	Type 2
3.3	Rating (8/20)	20 kA
3.4	Number of set	As may be required as per string Design (minimum 1 set against each MPPT Chanel)
4.0	Fuse with fuse holder	
4.1	Position	Positive and negative terminal for each series string
4.2	Type	Glass fuse, for PV Use only
4.3	Rating	Current: Minimum 1.25 times the rated short circuit current of the series string
5.0	Earthing Provision	Terminal blocks will have to be provided for Earthing,
6.0	Terminals, lugs and bus bar	Tinned copper

6.0 Grid-Tied Inverter

The power from PV array is to be feed into grid through grid-tied string inverter of minimum nominal capacity of 20 kVA, 3Ø- 415 V, 50Hz AC

Desired specification of string inverter will include but not limited to the following:

Sl. No.	Operating Parameter	Desired specification
1.0	Type	Grid - tied String Inverter
2.0	Usage	Specially used for PV system
3.0	Standards	
3.1	Efficiency Measurement	IEC 61683/ Equivalent BIS Std.

3.2	Environmental testing	IEC 60068-2 (1,2,14,30) / Equivalent BIS Std.
3.3	Interfacing with utility grid	IEC 61727 or Equivalent
3.4	Islanding Prevention Measurement	IEC 62116 or Equivalent
3.5	Type Test certificate issuing authority (for item no 3.1 , 3.2, 3.3,3.4)	NABL/ IEC Accredited Testing Laboratories or MNRE approved test centers.
4.0	Input (DC)	
4.1	Aggregated PV array connectivity Capacity	20 kW (minimum)
4.2	MPPT Voltage range	160-1000
4.3	TOTAL NUMBER OF MPPT FOR 30 KWP POWER PLANT	Minimum : 3 (three)
4.4	START UP VOLTAGE	180 V
5.0	Output (AC)	
5.1	AC capacity	Minimum 20 kVA
5.2	AC Grid Connection	3 Ø 400 V + N 50Hz ,
5.3	Adjustable AC voltage range	As per prevailing grid code.
5.4	Frequency range	As per prevailing grid code 45-55
6.0	General Electrical data	
	AC wave form	Pure sine wave
6.1	Efficiency	Minimum 96 %.
	THD	LESS THAN 3 %
6.2	VAR Control	As per IEC guideline
6.3	Power Factor	Near Unity (>.99) adjustable .8 leading to .8 lagging
6.4	Over Loading	Minimum 50 Percent of the rated capacity
7.0	Protection	
7.1	DC Side	1. Reverse-polarity protection 2. over voltage protection, Under Voltage, Reverse Current without any PV Array
7.2	AC side	1. Over voltage and Under voltage protection 2. Over and under grid frequency protection, 3. Anti-Islanding protection 4. DC inject Protection to Grid 5. Short circuit Protection 6. Ground Fault Protection
7.3	Isolation Switch	PV array Isolation switch (DC). If DC isolating Switch is not provided in the inverter it will be provided by the contractor separately nearer to the inverter.

7.4	Ground fault detection device (RCD) which can detect changes in ground current. Rating will be as suitable for inverter	To be provided for transformer-less inverter.
8.0	Interface (Communication protocol)	Suitable port must be provided in the inverter for i) Instant On site dumping facility for onsite data dumping, ii) Compatible to Web based remote monitoring system
9.0	Web monitoring	To be inbuilt or add on /external
10.0	Mechanical Data	
11.1	Protection Class	IP 65 (min)
11.3	Cooling	Natural / forced cooling
11.4	Type of Fixing	Wall / angel / channel

The contractor should submit the warrantee certificate issued by the original inverter manufacturer to WBREDA, against all inverters, after delivery of every lot. The warrantee shall include but not limited to the following:

- i) Capacity and model of the inverter,
- ii) Inverter serial no.
- iii) Warrantee period
- iv) Order reference of WBREDA
- v) Order description of WBREDA
- vi) Name of WBREDA (principal purchaser)
- vii) Name of the contractor

The warranty certificate as issued by the Inverter manufacturer, must comply the terms of the tender warranty period, declared performance in data sheet / test certificate and other terms of the tender.

The warranty certificate is issued by the inverter manufacturer must comply the terms of the tender warranty period.

No of inverter:

As per plant capacity compliance with 20-50 kWp

7.0 Web enable on line data logger and Remote Monitoring Unit :

- (i) Web enable data logging system may be an integrated part of the inverter or a separate unit.
- (ii) The data Logger should have the provision of recording electrical parameters on DC and AC side to study performance of system as well as to study status of the system at a particular instant. The data logger should have required transducer to monitor and record the required system data.
- (iii) Web based Remote Monitoring system must be compatible with data logger.
- (iv) The data logger shall have reliable data storage capacity (for a minimum period of six months) to record and store the minimum desired data mentioned herein under with maximum 20 minutes intervals.
- (v) The other required accessories, hardware and compatible software will have to be provided as an integrated part of the system to monitor the real time data (maximum 20 minutes delay) through web server. The Data logger will continuously send data to the server.
- (vi) The desired data which will be recorded in the Data logger are as follows:
Power generated, Cumulative Energy generated, AC & DC Parameters.
- (vii) The contractor shall provide the necessary accessories to extract data from the data logger with the system for each site.
- (viii) The system can be monitored from anywhere through internet without installing any specific application software. The server will not be provided by the Purchaser.
- (ix) **The rental charges and other charges of the IP address, data storage space in the host server and free access of the Data through Web for a period of five (5) years from the date of commissioning will be within the cost of contract value.**
- (x) **The contractor will arrange Internet connection/ facility at the project site for data transfer by supplying and installing a dongle& a SIM card or by other means for a period of five (5) years from the date of commissioning and the cost incurred will be within the cost of contract value.**

In case of modem based internet facility, the contractor will supply and install data cable connection with required switch or router having sufficient number of port from the Web-enabled Data Logger up to the internet facility at the project site for data transfer.

In case the data cable to be laid at outdoor for a significant distance, SPD (surge suppressing device) suitable for communication network, as much number at suitable location are required must be provided with the system.

- (xi) The Web based monitoring system should have the provision of graphical representation of the data will include but not limited to the following:

Sl. No.	Operating Parameter	Desired specification
1.0	Input data	Volt, Current, PV Power PV Energy, String level monitoring .
2.0	Output data	
2.1	Inverter	Volt, Current, Export energy

All data will be recorded chronologically date wise. The data file should be MS Excel/XML/or any readable form compatible and should have the facility of easy downloads.

In case of non-availability of data or non-functioning of the Web Based Monitoring System, the contractor has to restore the system within 15 days from the date of such occurrence at its own cost. The Data logger should be either in built or add on /external with enclosure, if applicable of IP 65, appropriately compatible of the given inverter. For any malfunctioning / not proper functioning of the Inverter and / or data logger, the bidder will be solely responsible. Maintenance payment will not be released in case of absence of appropriate functioning of the web based monitoring system. The decision of the controlling officer will be final in this regard. API should be provided from the Inverter companies.

8.0 Inverter LT Panel

The output of the string Inverter will be terminated in a Panel styled as **Inverter LT Panel** through 415 V 4 pole MCB at the output of the string inverter. The set of AC surge suppressor (SPD) of type will be connected at the outgoing side.

Desired specification of **Inverter LT Panel** will include but not limited to the following:

Sl No	Parameter	Desired Specification
1.0	In coming MCB (Inverters side)	
1.1	Number	01(one) number
1.2	Type	4 pole
1.3	Rating	415 V , Breaker(MCB/MCCB) will be decided as per plant capacity IEC-60898 ,Above 63A (MCCB) IEC-60947

Sl No	Parameter	Desired Specification
2.0	Surge protection device	
2.1	Position	Between Inverter and MCB
2.2	Usage as declare by Manufacturer	For AC use only
2.3	Protection class	Type 2
2.4	Number of set	01 Set
2.5	Rating	20 kA (minimum)
3.0	Indicator (Have to be provided in incoming & outgoing of MCB)	R,Y,B
3.1	Front Cover (Only indicator portion)	Transparent to Visualize the Indicator R,Y,B from outside
4.0	Earthing Provision	Terminal Blocks will have to be provided for Earthing
4.1	Cable Gland	Double Compressive Metallic Gland to be provided.
4.3	Degree of Protection	IP-42for indoor type
4.4	Type	double door sheet steel (16 SWG), powder Horizontal / vertical enclosure dust and vermin proof.
4.5	Type of Fixing	Wall mounted
4.6	Accessories mounting Arrangement	DIN Rail or as suitable
4.7	Number of entry and exit	As may be required
4.8	Power Terminal	4 way Power Terminal Block in incoming & Outgoing
4.9	Socket	Metallic Socket
4.10	Labeling of Panel	Panel name to be engraved with aluminium sheet on the panel
4.11	Internal Wiring	6 Sq.mm (min) Cu Cable

9.0 Grid interfacing LT Panel

Output of the Inverter LT Panel will be terminated to a **Grid Interfacing LT Panel**.

Desired specification of each **Grid interfacing LT Panel** will include but not limited to the following:

Sl No	Parameter	Desired Specification
1.0	MCB	
1.1	Number	01(one) number
1.2	Type	4 pole
1.3	Rating	415 V , Breaker(MCB/MCCB) will be decided as per plant capacity above 63A(MCCB) 10-20 kA C-characteristic
3.0	Bus Bar	
3.2	Rating	3 Ph Neutral 415 V, 80 A-250A
3.3	Type	Copper
3.4	Termination point	06 (six) Set (minimum)

Sl No	Parameter	Desired Specification
3.5	Size	As per rwequirement
4.0	Indicator (Have to be provided in incoming & outgoing of MCB)	R,Y,B
4.1	Front Cover (Only indicator portion)	Transparent to Visualize the Indicator R,Y,B from out side
5.0	Cable Gland	Double compressive Metallic Gland to be provided.
6.1	Degree of Protection	IP-42 for indoor type.
6.2	Type	double door sheet steel (16 SWG), powder coated horizontal / vertical enclosure dust and vermin proof
6.3	Type of Fixing	Wall mounted
6.4	Accessories mounting Arrangement	DIN Rail or as suitable
6.5	Socket	Cu Socket
6.6	Labeling of Panel	Panel name to be engraved with aluminium sheet on the panel
6.7	Internal Wiring	6 Sq.mm (min) Cu Cable

10.0 **Kiosk :**

The inverter, inverter interfacing panel / combiner panel with provision of locking arrangement may be installed into the required size kiosk if required as per instruction of site –in –charge

11.0 Energy Meter :

- a) 3 Phase whole current Energy Meter shall be installed at the outgoing side of Inverter LT panel. This is the additional meter , than what is to be provided by the DISCOM.
- b) The proposed manufacturer of energy meter must have experience of delivery of energy meter to the DISCOMs. [Distribution Companies like WBSEDCL , CESC etc]
- c) The following are technical specifications of the solar generation meter :

S. No.	Technical Parameters	Whole Current Meters
1	Number of phases and wires	Three Phase, 4 Wire
2	Rating	10-60A
3	Standard Voltage and frequency	3X240 V (PN), 415 V (P-P), 50Hz
4	Accuracy class	Minimum 1.0
5	Indian Standard or IEC to which conforming	IS 13779

Note: DISCOM will also provide a separate Meter at each location. The cost of the same will be borne by WBREDA.

12.0 Cables & Wirings :

The Specification of wiring material of PV Power plant will include but not limited to the following:

Sl No	Item	Description
A	DC Cable	
1.1	Conductor	Tinned annealed stranded flexible copper according to IEC 60228 class 5
1.2	Standard	PV-1F / 2 PfG 1169/08.2007 / VDE Standard E PV 01:2008-02 / EN 50618/Equivalent
B	AC Cable	
2.1	Rated Voltage	1.1kV
2.2	Construction	
2.2.1	Conductor	Copper
2.2.2	Insulation	PVC/XLPE
C	uPVC Conduit, tees, bends etc	
3.0	Standard	u PVC (ISI Marked)
3.1	Ambient Temperature	0 °C to 50 °C
3.2	Type	UV stabilized , temperatures, Shock proof chemical resistant
D	GI Pipe	
4.0	Make	Reputed make.
E	All Cables to be used in the project shall be copper connectors.	

Guideline of Cabling

g) Laying on wall or structure:

Where cable shall be laid on wall or structure, the cable shall be laid by using MS Clamp of adequate strength and size. The maximum distance between clamps shall not be more than 400mm. The cable shall run as straight as possible. There shall be GI pipe protection of 1 meter from each floor level during vertical run. When the cable shall pass through wall/floor etc necessary pipe protection shall have to be given. Where there is existing pipe between the floors is in a good condition, the same may be utilized. Neatness must be maintained.

ii) Laying Underground:-

Cable shall be laid generally in accordance with I S:1255-1983. The average depth of trench for laying cable shall be as below:-

- i) Directly on ground – 0.75 m.
- ii) At road crossing - 1.00 m.

G.I. pipe of approved make of suitable diameter shall have to be used where cable pass through walls, roads, drains, culverts, railway line etc.

iii) The cable must be laid through uPVC conduit or GI pipe on roof and indoor. In case of using metallic pipe as conduit proper grounding of the conduit must be done. Conductor size of cables and wires is to be selected based on efficient design criteria. The cable/wire size to be chosen are to be designed such that maximum voltage drop at full power

From the PV Array to Inverter(s) should be less than 2%.

From Inverter to AC Grid interfacing panel should be less than 3%.

iv) GI cable tray with perforation of suitable size must be used for laying of cable through uPVC conduit on the floor or Roof. Metallic clamp to be used for fitting/support of the conduit with the cable tray.

v) Cable terminations are to be made with suitable cable lugs & sockets etc, crimped properly and cables will be provided with dry type compression glands wherever they enter junction boxes/ panels/ enclosures at the entry & exit point of the cubicles. The panels bottoms should be properly sealed to prevent entry of snakes/lizard etc inside the panel. All cables are to be adequately supported.. Termination of cable shall have to be made by using suitable compression cable gland and sockets by crimping to the size of the cable. Only terminal cable joints will be accepted. Cable joint to join two cable ends will not be accepted.

vi) All cable/wires/control cable are be marked or coded properly for easy identification. Cables and wires have to confirm to the relevant standards suppliers to specify the specification.

vii) All fasteners will be made of Stainless steel or Aluminum. Cable Tie must be of Stainless Steel/Aluminum for outdoor installations and for indoor/inside equipments/inside enclosure have to be of UV Protected PVC/Stainless Steel/Aluminum .

viii) Minimum two number loop for underground cable laying and one number loop for other cable termination must be provided at the start and end of each span.

ix) Proper measure to be taken to seal the end point of cable conduit to prevent entry of water/lizard etc inside the cable conduit and must be sealed with silica gel.

- x) Looping to be provided in DC Cable before exit from array field & entering in the PVC Conduit and also before entering in the AJB.
- xi) In order to avoid looping area formed in array wiring, the positive DC conductor must run parallel side by side till termination at AJB.
- xii) The DC Cables in the PV array field must be laid through uPVC conduit of minimum 1 inch diameter. The uPVC conduit must be rest and fixed with metallic clamp on the **precast pedestals** of minimum size **150 mm X 150 mm x 100 mm** on the Roof. However the height of the pedestals may be increased for leveling purpose as per site condition. The distance between two pedestals shall be maximum **1.0 M**
- xiii) The DC cable shall be properly dressed and as far as possible most of the part of the cable must be inside the conduit.
- xiv) All the DC Cable shall be laid through uPVC conduit of minimum 1 inch diameter.

13.0 Cable from Inverter Panel to Grid Interfacing Panel upto Point of Common Coupling

Supply laying fixing of **4 core 1.1 kV** Grade armored, XLPE insulated , minimum **10 sq.mm** copper cable and above as per requirement comply with the design and guideline as per Technical Specification clause **No 12.0** from Inverter to *Inverter LT Panel* to Grid interfacing Panel to Point of Common Coupling (Supply Mains) .. This also includes laying, glanding, termination of cable in all complete.

- **However the payment will be done on actual Cable required at site, which may vary w.r.t site conditions of each Power Plant.**

14.0 Equipment and array structure earthing:

- i. Equipment grounding (Earthing) will connect all non-current carrying metal receptacles, electrical boxes, appliance frames, chassis and PV panel mounting structures in one long run. The grounding wire should not be switched, fused or interrupted.
Earthing Pit with Pipe Electrode: Earthing with 50 mm dia. GI pipe 3.64 mm thick x 3Mts long (reputed make) to be painted with bitumen partly under the ground level and partly above ground level driven to an average depth of 3.65 Mts. below the ground level & restoring surface duly rammed.
- ii. Earthing pit should be filled with earthing compound as per IS below the ground level & restoring surface duly rammed.
- iii. Earthing to be done using MS flat 25 mm x 3 mm and insulator should be used for laying.
- iv. Earth busbar of galvanized (Hot Dip) MS flat 25 mm x 6 mm on wall having clearance of 6 mm from wall including providing drilled holes on the busbar complete with GI bolts, nuts, washers, spacing insulators etc. as required
- v. Connecting the equipments to earth bus bar including S & F GI (Hot Dip) wire of size as below on wall/floor with staples buried inside wall/floor as required and

making connection to equipments with bolts, nuts, washers, cable lugs etc. as required and mending good damages Solid GI wire of 4 SWG or 20 mm x 3 mm galvanized (Hot Dip) MS strip as per suitability. Cu wire may also be used of min 10 Sq.mm.

- vi. Array Structure must be connected to the earth with S&F 25 mm x 3 mm galvanized (Hot Dip) MS flat on wall/floor with GI saddles as required and connection to equipments incl. drilling holes, with bolts, nuts, washers etc
- vii. Joining of earthing strip to be done by Welding as well as drilling holes and connecting/joining with bolts, nuts, washers etc . Bitumen and then Galvanizing spray paint of good quality (IS approved) to be provided in the welding area.
- viii. The complete earthing system will be electrically connected to provide return to earth from all equipment independent of mechanical connection.
- ix. Test point will be provided for earth pits.
- x. Earthing system design should be as per the standard practices.
- xi. The Code of Practice Earthing will be IS 3043 (latest edition)
- xii. Necessary provision will be made for bolted isolating joints of each earthing pit for periodic checking of earth resistance. Hence the earthing strip should be bolted with the earthing pipe in the pit.
- xiii. Minimum five (05) numbers of interconnected (System Earthing and MM Structure Earthing should be separately interconnected) earth pit needs to be provided in each location. Minimum required gap shall be provided in between earth pits as per relevant standard. [MMS- 2 no pits, AJB – 1 no pit, INV & IIP & Kisok – 1 no pit and GIP – 1 no pit] upto 30 KWp 5 no pit, above 30 kWp 7 no pit
- xiv. Masonry enclosure with the earth pit of size not less than 600mm X 600mm X 500mm (depth)complete with cemented brick work(1:6) of minimum 150mm width duly plastered with cement mortar (inside) shall be provided. Hinged inspection covers of size not less than 300mmX300mm with locking arrangement shall be provided. Suitable handle shall be provided on the cover by means of welding a rod on top of the cover for future maintenance.
- xv. Earthing system must be inter connected through GI Strip to arrive equi- potential bonding.
- xvi. For hilly area suitable earthing system will be provided as per site condition.
- xvii. Parallel/ladder/double run earthing of MMS have to be done.
- xviii. The earthing resistance of the pit must be within 5 ohm.
- xix. PVC sleeve to be provided/used in the earthing strip layed near the human activity zone.

15.0 PV Array Cleaning Arrangement

Necessary equipments and water supply lines are to be provided with suitable number of outlets (3 nos min) in the array field to facilitate easy cleaning of the PV-Modules. Plumbing arrangement should be provided at each location. Hosepipe of min 15mtr length, bucket (20 ltr) , mug, wiper (2nos.) shall be supplied at each site by the contractor for cleaning of solar modules.

Water pipe line with minimum three numbers of outlet tap with post is to be laid down in

the array field near to the Solar PV module for cleaning. The position of the tap must be in such a manner so that maximum no of modules can be washed. The water line is to be connected to the suitable nearest point of water source.

Water lines are to be laid on the roof at least 30 mm gap should be provided in between water pipe and the roof by means of permanent brick / concrete support. Maximum distance between two adjacent support and base shall be 2 m.

The whole work shall be executed within the contract value. The school authority will arrange the source of water supply at the roof at their cost.

16.0 Fire extinguisher

One number of minimum 5 kg ABC type dry power portable fire extinguishers shall be provided at each location. The installation of Fire Extinguishers should confirm to TAC regulations and BIS standards.

Standards:

Fire Extinguisher: IS13849/IS 15683 (with latest amendments)

17.0 Signage:

Project information Signage: The Signage will be of minimum size 4’x 3’ in a suitable frame. The Signage provides with detail of the project as approved by WBREDA. The font size on the signage has to be big enough so that everyone can read it easily. The Signage will be fixed up at a prominent place of the project area.

Safety Signage:

Safety Signage must be provided indicating the level and type of voltage and symbols as per IE Rule at different position as may be required. In the safety signage Voltage level and type of voltage must be mentioned.

Each complete set of Safety Signage contain minimum 05 (five) nos. safety signage:

Location	Quantity
PV Array Field	Minimum 2 nos. (made up of ACP base)
On PV Array JB	01 no.
Near Inverters	01 No
On Inverter Interfacing LT Panel	01 no
On Grid interfacing Panel	01 no.
On Energy Meter	01 no.

Equipment marking is to be done.

18.0 Other Conditions

The work includes necessary excavation, concreting, flooring, platform, necessary finishing, painting, back filling, shoring & shuttering, cable laying, location of installation of different component of PV Power Plant etc. if any, required for completion of the project in all respect shall be as per direction of Controlling Officer / Engineer-in-Charge.

19.00 LIGHTNING AND OVER VOLTAGE PROTECTION:

The SPV Power Plant should be provided with lightening and over voltage protection. The principal aim in this protection is to reduce the over voltage to a tolerable value before it reaches the PV or other sub-systems components. The source of over voltage can be lightening or any other atmospheric disturbance. The Lighting Arrestor (LA) is to be made of 1¼" diameter (minimum) and 12 feet (minimum) long GI spike on the basis of the necessary meteorological data of the location of the projects. Necessary foundation for holding the LA is to be arranged keeping in view the wind speed of the site and flexibility in maintenance in future. Each LA should have dedicatedly earthed through suitable size earth bus with earth pits. The earthing pit shall have to be made as per IS 3043. LA shall be installed to protect the array field, all machines and control panels installed in the control rooms. Number of LA shall vary with the capacity of SPV Power Plant & location. Number of LA should be in such a manner that total layout of solar modules should the effective coverage of LA's.

BILLOF MATERIAL
for each
Grid connected Solar PV Power Plant of PV Array capacity 10 kWp

Sl. No	Items	Unit	Quantity
(I)	(II)	(III)	(IV)
1.	PV Array of minimum capacity 20-90 kWp as per reference SI no. 2.0 and 3.0 of Technical Specification	Set	01
2.	PV Module Mounting Structure with foundation as per reference SI no. 4.0 of Technical Specification	Set	01
3.	PV Array Junction Boxes (AJB) as per reference SI no. 5.0 of Technical specification	Set	01
4.	Grid –Tied String Inverter of minimum nominal AC capacity 10 kVA as per reference SI no. 6.0 of Technical specification	No	01
5.	Web enable on line data logger and Remote Monitoring Unit as per reference SI no. 7.0 of Technical Specification	Set	01
6.	Inverter LT Panel as per reference SI no. 8.0 of Technical Specification	Set	01
7.	Grid interfacing LT panel as per reference SI no. 9.0 of Technical Specification	Set	01
8.	Kiosk for Inverter and other accessories as per reference SI no. 10.0 of Technical Specification	No.	01
9.	Export Import Energy Meter per reference SI no. 11.0 of Technical Specification	No.	01
10.	Cables and Wiring as per reference SI no. 12.0 of Technical specification	Lot	01
11.	Supply, laying ,fixing of suitable 4 core 6 sq.mm armored XLPE insulated copper cable from Inverter LT panel to Grid interfacing LT Panel to Point of Common Coupling (Supply Mains) as per reference SI no. 13.0 of Technical Specification – (100 mtr for each site –As required) [The rate for 100 meter is to be quoted for each site. However final payment will be made against actual consumption at site on prorata basis.]	Mtr	100
12.	Equipment, Array structure Earthing as per reference SI no. 14.0 of Technical Specification	Set	01
13.	PV Array Cleaning arrangement as per reference SI no. 16.0 of Technical Specification	Lot	01
14.	Lightning and over voltage protection	Set	01
15.	Fire Extinguisher as per reference SI no. 17.0 of Technical Specification	Set	01
16.	Signage as per reference SI no. 18.0 of Technical specification	Lot	01
17.	Preparation of Technical Documentation and Training to the beneficiary	Set	01
18.	Site Survey	Set	01

Section – VII

NieT No: WBREDA/NieT-09/20-21 dt: 08.10.2021

BOQ

Given separately