



RAJASTHAN STATE MINE & MINERALS LIMITED

(A Government of Rajasthan Enterprise)

e-TENDER DOCUMENT

For

Setting up of a 5MWp. Solar Photo Voltaic Power Plant on Turnkey basis along with its operation & Maintenance to give guaranteed generation at location/site offered by bidder in the State of Rajasthan

e-Tender No.RSMM/CO/PROJ/Solar Power (P-1)/13-14 /620

Dated 28.01.2014

Issued by

Advisor & Head (Projects)

Corporate Office

4, Meera Marg, Udaipur – 313004, Rajasthan

Cost of Tender Document: 10000/- (inclusive of VAT)

Processing fee : Rs. 1000/-

Pre bid meeting	13.02.2014 at 11.0 AM at CO,Udaipur
Last Date of Online Submission of Tender	10.03.2014 up to 3:00 PM
Date of Opening of Techno-commercial Part (Part I)	11.03.2014 at 11.00 AM

Registered Office at Jaipur

**C-89-90,Janpath,
Lal Kothi Scheme
Jaipur 302 015,
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Phone : 0141 2743733-34, Fax : 2743735**

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**4, Meera Marg,
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RAJASTHAN STATE MINES & MINERALS LIMITED
(A Government of Rajasthan Enterprise)
PROJECT DIVISION

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DETAILED e-NOTICE INVITING TENDER

Online tenders in two parts (Part – I: Techno commercial offer and Part – II: Price offer) are invited from reputed contractors having experience in similar nature of works in electronic form through <https://eproc.rajasthan.gov.in> for following works.

Brief Description of work	O&M -Period	Earnest Money (Rs.)
Installation of Solar PV Power Plant with all required accessories on turnkey basis for an installed capacity of 5 MWp along with its comprehensive O&M to give guaranteed generation for a period of 20- years.	20 years after Successful commissioning	50.0 Lac
Cost of tender document Rs. 10,000/- is inclusive of VAT, payable by cash/D.D. in favour of "RSMMLtd, Udaipur"		
Processing Fee	Rs. 1000/- payable by DD only in favour of MD RISL, payable at Jaipur	
Download from our websites:	http://www.rsmm.com	https://eproc.rajasthan.gov.in
Pre bid meeting	13.02.2014 at 11.0 AM at CO, Udaipur	
Last Date of Online Submission of Tender	10.03.2014 upto 3:00 PM	
Date of Opening of Techno-commercial Part (Part I)	11.03.2014 at 11.00 AM	
Date of opening of Price offer:	Will be conveyed later to techno-commercially accepted tenderers	

We request you to please offer your lowest quotation for proposed solar power project on terms and conditions as given below with Annexures enclosed herewith.

1. Scope of work	Sec. VII															
2. Technical specification	Sec. VIII															
3. Location	location/site identified/offered by bidder in state of Rajasthan.															
4. Land	Bidder is required to identify and provide the suitable land for solar power plant along with power evacuation system up to nearest interconnection point on 132/33 KV grid substation of the state. The land offered should have all statutory clearances and should be free of all disputes whatsoever.															
5. Soil Test report	To be arranged by bidder															
6. O&M	Bidder shall carry out the O&M for 20 years. The rates for O&M are essentially to be quoted for at least 10 year period. However preference shall be given to the bidder quoting O&M rates for longer period, other things being equal.															
5. Currency of offer	Firm & fixed Indian rupees only Foreign bidders are also required to quote in Indian currency only.															
6. Earnest Money Deposit (EMD)	The bidder should deposit <u>Rs50.0Lacs</u> as Earnest Money Deposit (EMD) with the offer through a Demand Draft drawn in favour of M/s Rajasthan State Mines & Minerals Ltd. payable at Udaipur. However, they may furnish B.G of 50.0 Lacs in place of D.D having validity of six months & grace period of three months from the last date of submission of offer. The B.G should be of any Public sector bank/ ICICI/ AXIS/ HDFC bank having its branch at Udaipur, Rajasthan in favour of RSMML in our approved format only. Offers without EMD shall be ignored.															
7. Project Commissioning Schedule	Project of 5 MWp has to be commissioned within 6-months of issue of DLOA or 30 th September 2014 whichever earlier in all respect.															
8. Payment terms	Payment terms are as under: (Ref. Clause no. 5.18 of Section V). <table border="1" data-bbox="683 1417 1281 1868"> <tr> <td>1</td> <td>Payment of advance against BG of equivalent amount (BG shall be released on receipt of material at site).</td> <td>05%</td> </tr> <tr> <td>2</td> <td>On receipt of material at site on pro-rata basis as per agreed bill schedule.</td> <td>50%</td> </tr> <tr> <td>3</td> <td>On commissioning of the project</td> <td>15%</td> </tr> <tr> <td>4</td> <td>On issuance of work completion certificate and on submission of B.G of 20% amount</td> <td>30%</td> </tr> <tr> <td></td> <td><u>Total</u></td> <td><u>100%</u></td> </tr> </table>	1	Payment of advance against BG of equivalent amount (BG shall be released on receipt of material at site).	05%	2	On receipt of material at site on pro-rata basis as per agreed bill schedule.	50%	3	On commissioning of the project	15%	4	On issuance of work completion certificate and on submission of B.G of 20% amount	30%		<u>Total</u>	<u>100%</u>
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3	On commissioning of the project	15%														
4	On issuance of work completion certificate and on submission of B.G of 20% amount	30%														
	<u>Total</u>	<u>100%</u>														

9.Pre Qualifying criterion	<p>(1) The Bidder must have “Net Worth” of Rs. 25 crore in last financial year 2012-13.</p> <p>The Bidder should submit duly attested copy of audited balance sheet and a certificate from chartered accountant in support of net worth along with offer.</p> <p>(2) Bidder should have executed a solar PV power plant in India on turnkey basis of minimum 2 MW peak.</p>
10. Evaluation of bid	<p>The evaluation of the bid shall be based on cost benefit factor. The bid with highest cost benefit factor shall be considered as L-1. The bid with second to highest cost benefit factor shall be considered as L-2 and so on. The cost benefit factor shall be ratio of sum of discounted annual revenues to sum of discounted annual cost to RSMML.</p> <p>The sum of annual discounted revenue will be derived by discounting the net minimum guarantee generation units per annum to a fixed tariff rate of Rs.12.00 for initial 3-years, and then Rs.9.00 for balance 17-years. The discounting factor will be considered as 11%.</p> <p>The sum of annual discounted cost to RSMML shall be the sum of quoted Capital Cost for 5 MWp and discounted value of O&M cost for 20-years. If the bidder does not quote O&M rates for 20-years then highest O&M rate provided by any bidder for the corresponding year or 5% escalation on previous year rates whichever is higher shall be considered for calculation purpose. The illustration sheet is also enclosed with price schedule.</p>
11. Validity of offer	Validity of offer should be 180 days from the last date of submission of bid.
12. Fixed price	Prices quoted by the bidders shall remain fixed & firm during the execution of contract. The bid submitted with variable price would be treated as non-responsive and may be rejected.
13. Custom duty, CVD, etc.	On imported supplies, duty & other applicable levies, etc, if payable will be paid directly by the bidder and shall be deemed included in the tender price only and will not be paid / reimbursed separately by RSMML.

14. Taxes, duties, levies etc.	<p>The Price quoted shall include all applicable taxes, duty, levies. No tax amount shall be payable by RSMML over and above the fixed & final price. Variation in statutory tax/duty rates or imposition of new tax/duty, will be reimbursed/ recovered to/by the supplier/RSMML against documentary evidence of deposition of same by the bidder. The bidder shall specify in Annexure-1 the rate of tax/duty considered by him in his bid.</p> <p>Bidder has to declare that they are making the offer on the basis of supply-cum-erection-cum O&M contract on a single point responsibility basis.</p> <p>Bidder is also required to bear income-tax, surcharge and cess on income tax, service tax or any other corporate/statutory tax, sales tax, works contract tax and any other tax as applicable/attracted under the law.</p>
15. For CDM Work	<p>Company has anticipated CDM revenue from the proposed project (so as to mitigate the risk of variance in various factors). Therefore, bidder should provide all relevant data and cooperation after award of work to prepare PCN/PDD from time to time as required by RSMML.</p>

Tender is to be submitted online at <https://eproc.rajasthan.gov.in> in electronic form as prescribed in the tender document. Tender fees & processing fees will not be refunded in any case.

The Bidder should go through the website <http://eproc.rajasthan.gov.in> and the link "help for contractors", "information about DSC', FAQs' and bidders manual kit" to know the process for submitting the electronic bids at website. The complete bid document has been published on the website <https://eproc.rajasthan.gov.in> for the purpose of downloading.

The downloaded bid document shall be considered valid for participation in the bid process subject to submission of required cost of tender document, e-Tendering processing fee & EMD. The same shall reach to the office of undersigned on or before the time specified for online submission of tender.

The tender shall be pre-qualified on the basis of documents furnished/uploaded along with techno-commercial bid in support of above. All communications/correspondences/documents including the bid document should be physically signed, stamped on each page before uploading and also signed digitally by the designated authorized representative of the bidder. The decision of the company will be final and binding in this regard.

The price bid of only those bidders shall be opened who qualify in technical bid as per criteria laid in tender & only qualified bidders will be informed about price bid opening.

RSMML proposes to hold a pre-bid meeting to clarify doubts and furnish replies to the questions/ observations raised by the bidders on this tender document. The pre-bid meeting will be held at the office of Advisor & Head (Projects) at 4, Meera Marg, Udaipur – 313 004 as indicated in NIT. Bidders are advised to send their queries/clarifications so as to reach him at least seven (7) days before the scheduled date of the pre bid meeting.

The tenderer who has earlier been awarded contract by the company for any job & which they have abandoned or not accepted the work order awarded in their favour or contract has been suspended/terminated by the company for breach of conditions or banned shall not be eligible to participate in this tender during the currency of suspension/banned period.

Offers furnished through Post, E-mail, Fax Telegram etc. shall not be considered.

RSMML also reserves the right to reject/cancel any or all tenders without assigning any reason whatsoever.

Prospective bidders should keep visiting above websites till last date for updated information, if any

Advisor & Head (Projs),
Rajasthan State Mines & Minerals Limited
Udaipur, Rajasthan

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EXECUTIVE SUMMARY

Rajasthan State Mines & Mineral Limited (RSMML) intends to set up a 5 MWp capacity Grid Interactive Solar PV power Plant in Rajasthan State.

The current document is the Tender Invitation document requesting a offer for Setting up of a 5 MWp Solar Photo Voltaic Power Plant on Turnkey basis along with its operation & Maintenance in state of Rajasthan. It includes the Design, Engineering, Procurement and Construction of the complete Project on a Turnkey Basis as well as twenty years comprehensive Operation and Maintenance.

The Bidder/Tenderers must submit a Proposal based upon their design and based on information collected by them from various sources. The data given in TENDER is for general information and reference only and bidders are requested to use the best available data as per their own wisdom.

They are also required to supply on award of work a Performance Model in form of a computer program/scada, which can calculate the hourly performance of the project based on the input values of ambient conditions of global solar radiation, diffuse solar radiation, temperature and humidity.

The Bidder/Tenderer shall give net minimum guaranteed generation from 5 MWp SPV power plant at the metering point. Any short fall in the revenue to RSMML due to less generation from the guaranteed generation will be recovered from the Bidder's/Tenderer's performance bank guarantee and/or O&M charges.

After evaluation of the bids, LOA/DLOA will be issued to the successful bidder.

Evaluation Criteria:

The evaluation of the bid shall be based on cost benefit factor. The bid with highest cost benefit factor shall be considered as L-1. The second to highest cost benefit factor shall be considered as L-2 and so on. The cost benefit factor shall be ratio of sum of discounted annual revenues to sum of annual discounted cost to RSMML.

The sum of annual discounted revenue will be derived by discounting the net minimum guaranteed generation units per annum to a fixed tariff rate of Rs.12.00 for initial 3-years, then Rs.9.00 for balance 17-years. The discounting factor has been considered as 11%.

The sum of annual discounted cost to RSMML shall be the sum of quoted Capital Cost for 5 MWp and discounted value of O&M cost for 20-years, as quoted by the bidder.

Scope of work:

The scope of work to be offered by the Bidder/Tenderer on turnkey basis includes the following without being limited to it:

Design, engineering, procurement and/or manufacture, quality surveillance testing at manufacturer's work, inspection packing, supply, delivery to site installation, commissioning and O&M for 20- years for all equipment including comprehensive insurance for 5 MWp capacity Solar PV Plant as detailed out in this document.

Scope of work under this contract shall also include all such equipment, services and materials which are not specifically mentioned but required to complete the system as well as for successful, efficient, safe and reliable operation which includes injection of

generated power in the state grid under this contract. All such equipment and material shall be supplied by the contractor under this contract and their cost shall be deemed to be included in the quoted price.

Preparation of the ground (including measures to minimise soiling and dusting), security fences, gates, windbreakers

SPV Modules and balance system like supporting structures, junction boxes, invertors etc..

33 kV Grid Sub-station for Power Evacuation at 33 kV or at higher voltage.

The storm water drain shall be built and maintained by the Contractor.

Control room building as per requirement of the Solar Plant.

Landscaping (arranging the ground of the area not occupied by power plant equipment, e.g. planting grass etc.) of area within plant boundary.

Paved Access and Field Maintenance Roads.

The contractor shall install requisite testing and measurement facilities at site. During the O&M period, the Contractor shall record and maintain solar data at 15 minutes interval and provide to RSMML in electronic form on weekly basis along with energy fed into the grid. The right to use the data from Solar Plant station shall remain with RSMML.

The energy and all other charges relating to power connection during the construction shall have to be borne by the Contractor, though RSMML may take the connection or convey its concurrence to electricity supplier for releasing connection to the contractor, if required.

Water required during Construction and O&M of the Plant is the responsibility of the Contractor.

All other statutory clearances/approvals/permit/ license in accordance with all the applicable rules and regulation including Electricity Act, 2003, Fire fighting certificate etc. wherever required shall be the responsibility of the contractor, and these should be obtained before the trial run and maintenance during the O&M period at its own cost. However RSMML shall extend all possible help in obtaining these.

Metering System (Main & Backup) with CT &PT Set etc., of required accuracy shall be installed at output of 33KV side of 415V/33kV transformer as per requirement of RVPNL/Discom.

SECTION I

Definitions & Interpretations

Definition

The following expressions used herein and elsewhere in this document shall have the meaning indicated against each unless repugnant to the subject or context or are changed with mutual consent.

The term the '**Company/RSMML/Owner**' means the Rajasthan State Mines & Minerals Limited having its Registered office at C-89-90, Janpath, Lal Kothi, Jaipur & Corporate Office at 4, Meera Marg, Udaipur 313004 (Rajasthan) and includes its successors and assigns.

The '**Managing Director**' shall mean the Managing Director of the RSMM Ltd, or his successor in office as designated by the Company.

The '**Group General Manager**' shall mean the Group General Manager of Project, RSMML or his successor in office.

The term '**Engineer-in-charge**' shall mean the person/executive nominated from time to time by the Company and also expressly authorized by the company for and on his behalf for operation of this contract.

The term '**Bid/Tender**' shall mean the tender/bid submitted by the Bidder/Tenderer for acceptance by the company.

The term '**The Contractor (for turnkey job) Operator (for Operation & Maintenance job)**' shall mean the person or persons firm or company whose tender has been accepted by the company, in association with his collaborator and includes the contractor and collaborator(s) legal representatives, his successors, executors, permitted assigns.

The term '**Sub-contractor**' shall mean any person or firm or company (other than the Bidder) to whom any part of the work has been entrusted by the contractor.

The term '**Contract Document**' shall mean collectively tender document, designs, drawings, specifications, agreed variations, if any, and other document constituting the tender and acceptance there of and shall be deemed to include any amendments, modifications to the contract document.

The term '**Specifications**' shall mean directions, various technical specifications, provisions and requirements attached to the contract, which pertains to the method and manner of performing the work or works and the materials to be furnished under the contract for the work or works as may be amplified or modified by the company or the Engineer-in-charge during the performance of the contract to provide for the unforeseen conditions or in the best interest of the work or works. It shall also include the latest edition including all addenda/corrigenda of relevant IEC/Indian Standard specifications/codes.

The term '**Work or Works**' shall mean the works to be executed in accordance with the contract and part thereof as the case may be and shall include all extra, additional, altered and substituted works as required for the purpose of contract.

The term '**The commissioning certificate**' shall mean the certificate to be issued by the statutory authority i.e. RVPNL/Discom after interconnection of Solar power plant with the state grid so as to export the generated power.

Day

The 24 hour period beginning and ending at 12.00 midnight IST.

Environmental Laws

All applicable codes, laws, rules and regulations, relating to actual or potential effect of the activities on and at the project contemplated by this Agreement on the environment, the disposal of material, the discharge of chemicals, gases if any or other substances or materials into the environment, or the presence of such materials, chemicals, gases or other substances in or on the project.

Power Plant

The complete, fully functional and operational 5 MWp Solar Power Plant generating station, including related facilities, subsystems, metering and controls necessary to enable the plant to deliver electric power to 33 KV voltage outgoing feeder/s up to inter connection point with the State Grid.

Month

A calendar month according to the Gregorian calendar beginning at 12.00 midnight on the last day of the preceding month and ending at 12.00 midnight on the last day of that month.

MNRE means Ministry of New & Renewable Energy, Govt. of India.

"Prudent Utility Practice" means accepted international/ Indian practice(s), standard(s), engineering and operation considerations, taking into account the conditions prevalent at Site including manufacturer's recommendations generally followed in the operation and maintenance of facilities similar to the Power plant.

Indian Electricity (Supply) Act means Indian Electricity Act 2003, Indian Electricity (Supply) Act 1948 & Indian Electric Rules 1956 & as amended from time to time.

Interconnection point means the physical point(s) at the terminal substation gantry (ies) where 33 KV or other higher voltage line/lines from the RVPN Grid are connected.

RVPNL - means Rajasthan Rajya Vidyut Prasaran Nigam Ltd.

JDVVNL - means Jodhpur Vidhyut Vitran Nigam Ltd

JVVNL – means Jaipur Vidhyut Vitran Nigam Ltd.

AVVNI – means Ajmer Vidhyut Vitran Nigam Ltd.

RRECL - means 'Rajasthan Renewable Energy Corporation Ltd

RERC - means 'Rajasthan Electricity Regulatory Commission'

IREDA - means 'Indian Renewable Energy Development Agency'.

The term **"Work completion certificate"** shall mean the certificate issued by the Engineer-in-charge appointed by the company, when the contractor has completed all his contractual obligations as per contract provision.

Date of commercial operation- The date on which Solar plant is connected with the state grid and started feeding generated power into the grid for sale.

Contract price/ value-means the total turnkey price accepted by RSMML for 5 MWp solar plant excluding the O&M cost.

LOA-shall mean letter of acceptance to be issued to successful bidder by RSMML.

DLOA –shall mean Detailed letter of acceptance to be issued by RSMML,

"Bidder/ Tenderer"- mean the person, firm, or Owner/Corporation submitting a tender/bid against the Invitation for Tender/Bid and shall include his/its/their heirs, executors, administrators, legal representatives, successors etc.

Wherever any details/ documents of tenderer has been solicited, shall also include the same for collaborator.

“Tender document” shall mean tender document as issued by Company and includes its addendum(s)/ corrigendum(s), if any.

Contract Value

It shall mean turnkey Cost of 5 MWp complete solar power plant including cost of solar panels, structures, cables, JB's, Inverters, LT panels, transformers, control panel, Circuit breakers etc and cost of internal cabling & lines and associated switchgear. Equipments required for interfacing with grid sub station, civil works, transportation, insurance in transit to site and storage and other auxiliaries design, erection commissioning , testing and all other works enabling Solar power project work complete in all respects as per the scope of work (inclusive of imported components and all types of taxes, duties, levies, etc). This also includes the cost of power evacuation system and metering system (s) as required by RVPNL / Discom up to the point of inter connection with the State grid.

Net Minimum Guaranteed Generation (NMG) per year

It shall mean the minimum number of units (Kwh) guaranteed by the bidder to be fed to the grid from **the 5 MWp Solar plant** (combined generation of all Solar modules) after deducting power drawn (import) from the grid for captive use of solar power plant recorded at metering Point (as decided by Discom/RVPNL) as Net Export. The shortfall from such Net Minimum Guaranteed Generation in each year will render the bidder liable to pay to the owner compensation at the prescribed rate as per contract agreement.

In this document unless otherwise stated:

- (i) the headings and paragraph numbering are for convenience only and shall be ignored in construing the agreement;
- (ii) the singular includes the plural and vice versa;
- (iii) references to natural persons include bodies corporate and partnerships;
- (iv) references to any enactment, ordinance or regulation includes any amendment thereof or any replacement in whole or in part;
- (v) references to Articles, Clauses and Schedules are, unless the context otherwise requires, references to Articles of, Clauses of, and Schedules to, this document.

SECTION II PROFILE OF RSMML

Preamble

Rajasthan State Mines & Minerals Limited (RSMML) is one of the Premier Public Sector Enterprise of Government of Rajasthan, is the successor of the erstwhile M/s. Bikaner Gypsum Limited, a private sector company which had commenced the mining of Gypsum in erstwhile Bikaner State in 1947.

Today

RSMML today comprises of five separate divisions and all working under the overall control of Corporate Office at Udaipur. Today it deals in four Principal Industrial Minerals, Rock Phosphate, Natural Gypsum, Limestone and Lignite.

The Board of Directors

The Board of Directors of the company has Chairman and other members of the Board are senior officials of the state Government, and Public Sector Corporations. The company is managed by a full time Managing Director, who is also a member of the Board of Directors

Activities

The current activities of the Company are the following:-

Phosphate

- Mining and Marketing of Rock Phosphate Ore, Udaipur, Rajasthan;
- Mining and beneficiation of low grade Rock Phosphate ore to produce a high grade Phosphate concentrate at their Industrial Beneficiation Plant at Jhamarkotra, Udaipur.
- Manufacturing and selling direct application phosphatic fertilizer called "RAJPHOS".

Limestone & Gypsum

- (i) Mining of Gypsum/Selenite in the desert areas of Bikaner, Churu, Sri Ganga Nagar, Hanuman Garh, Jaisalmer, Pali & Barmer districts of Rajasthan;
- (ii) Mining of low Silica Limestone in Jaisalmer district for use in the steel industries like TISCO, SAIL & JINDAL Steel.

Lignite

Mining of Lignite in Kasnau -Matasukh in district Nagaur and at Giral in Barmer district and other parts of Rajasthan.

Desalination Project

- 20 MLD brackish water desalination project at Kasnau – Matasukh Lignite Mines, district Nagaur on DBOOT basis.

Windfarm

The company is in the business of renewable energy generation from windfarms since 2001 and had installed 106.3 MW capacity in Rajasthan so far in phases. The power generated from windfarm is partially being used for captive purpose, while balance is being sold to the State. Three projects of company are registered with UNFCCC as CDM Projects. RSMML is also earning revenue by selling carbon credits.

Environment Management

Continuous efforts are made towards improving the environment. All effluents are continuously monitored and controlled.

Quality Policy;

RSMML is uncompromising on quality. It believes in long terms relations and works hand to hand with the customer to ensure that he gets the best service possible. The Company has adapted a quality policy to standardize its products as well as day to day functions.

SECTION – III

INSTRUCTIONS TO BIDDERS

- 3.01 Tender is to be submitted online at <https://eproc.rajasthan.gov.in> in electronic form as prescribed in the tender document. Tender fees and processing fees will not be refunded in any case.
- 3.02 The Bidder should go through the website <https://eproc.rajasthan.gov.in> and the link "help for contractors", information about DSC', FAQs' and bidders manual kit" to know the process for submitting the electronic bids at website. The complete bid document has been published on the website <https://eproc.rajasthan.gov.in> for the purpose of downloading. The downloaded bid document shall be considered valid for participation in the bid process subject to submission of required cost of bid document, e-Tendering processing fee and earnest money.
- 3.03 All communications/correspondences/documents including the bid document should be physically signed, stamped on each page before uploading and also signed digitally by the designated authorized representative of the bidder.
- 3.04 A scanned copy of EMD, e-Tendering processing fee and cost of tender document must be enclosed along with the Technical Bid proposal failing which the bid will be summarily rejected.
- 3.05 The DD/BG towards the cost of tender document fees, Earnest Money deposit and processing fees along with original affidavit as per annexure II of tender document should be kept in a sealed envelope addressed to Advisor & Head (Projects), RSMML, Corporate Office, Udaipur. This envelope should be marked with NIT number & work, name and address of contractor; telephone number etc is to be written on the top of each envelope for clarity. This envelope should be submitted in the office of the Advisor & Head (Projects), RSMML, Corporate Office, Udaipur on or before the on line submission date and time as mentioned in the Notice Inviting Tender. The Company shall not be responsible for any postal delay. In case of non-receipt of same prior to the time of opening of tender, the offer of the tenderer shall be rejected.
- 3.06 The tenderer in quoting his rate, shall for all purpose, whatsoever, be deemed to have himself independently obtained all relevant and necessary information for the purpose of preparing his tender. The correctness or completeness of the details, given in the tender documents is not guaranteed. The tenderer is required to satisfy him in all respect, before the submission of offer.
- 3.07 The tenderer shall be deemed to have examined the tender document, to have obtained his own information in all matters whatsoever that might affect the carrying out of the works at the schedule of rates and to have satisfied himself to the sufficiency of his tender. Any error in description or quantity or omission in the Contract Document shall not vitiate the contract or release the Contractor from executing the work comprised in the contract at the scheduled rates. The tenderer is deemed to know the scope, nature and magnitude of the works and requirement of materials, equipment, tools and labour involved, wage structures, conditions of service of Company's staff/workmen doing similar and same type of work etc and as to what all works he has to complete in accordance with the contract documents irrespective of any defect, omissions or errors that may be found in the contract documents. The Contractor shall be

deemed to have visited site and surroundings, to have satisfied himself to the working conditions at the site, nature and conditions of rock and soil, availability of water, electric power, labour etc, transportation facilities, probable sites for labour accommodation and store go-downs etc and all other factors involved in the execution of works

- 3.08 The Contractor shall be required to comply with provisions of Contract Labour (Regulation and Abolition) Rules 1971 and Contract Labour (Regulation and Abolition) Act, 1970 and amended thereof and of any other applicable Acts. The Contractor shall collect detailed information in this regard at his end.
- 3.09 The Contractor shall fully acquaint himself/ itself with the prevailing Industrial Environment for working in Rajasthan.

Tender Procedure

- 3.10 e-Tender portal <https://eproc.rajasthan.gov.in> shall be used for all procedure related to the bidding.
- 3.11 The prospective Bidders should register themselves in the e-Tender Portal and submit the Bids electronically through the e-Tender portal.
- 3.12 The Bidders are requested to download the e-Tender help manual and user manuals from the Portal for reference.
- 3.13 It is mandatory for the Bidders to possess a valid Digital Signature Certificate to complete the e- Tender Bid process as per the provisions of Government of India IT Act.
- 3.14 The Technical Bid document and Price Bid form will be available in prescribed format for downloading. The registered Bidders can log into the e-Tender system and download the Bid Forms.
- 3.15 The Bid forms should be filled and submitted using the Digital Signature Certificates. The supporting documents as required in support of tender should be scanned and uploaded in the e-Tender system.
- 3.16 The Bid Form should not be changed or altered or tampered by the bidder. If the Bid form found tampered, the Bids will be summarily rejected.

Tender Document Fee

- 3.17 The Tender Documents may be downloaded from the portals as mentioned in the Tender Schedule. The Tender document fee as mentioned in the NIT shall be paid by way of cash/DD in favour of RSMML payable at Udaipur.

3.18 e-tendering processing charges

For each and every Bid submitted, a non-refundable Processing charge Rs. 1000/-should be paid by way of Demand Draft or Banker's Cheque drawn in favour of "MD RISL" payable at JAIPUR. The payment by way of Demand Draft or Banker's Cheque should be deposited physically at office of Advisor & Head (projects), RSMML, Corporate office, 4, Meera Marg, Udaipur, Rajasthan-313001 on or before the date and time of submission of the Tender.

The payment particulars should be entered in the e-Tender Portal by the bidder while bidding.

If any of the information committed in the e-Tender Bid does not match with physically submitted payment, RSMML reserves the right to reject the bid summarily.

Even though the payment particulars are entered in the e-Tender portal, if the Bidder fails to submit the physical instrument prior to the scheduled date and time of submission of tender, their bid is liable for rejection.

ONE BID PER TENDERER

- 3.19** Each bidder shall submit only one Tender, either individually or as a partnership firm or a Private/Public limited owner.

COST OF BIDDING

- 3.20** The Tenderer shall bear all costs associated with the preparation and submission of his offer, and the company will in no case be responsible or liable for those costs, under any conditions.

GENERAL INSTRUCTIONS FOR FILLING THE TENDER

- 3.21** All uploaded document shall be digitally signed by the tenderer or by a person holding power of attorney authorising him/her to sign on behalf of tenderer before submission of the tender.
- 3.22** Tender in which any of the particulars and prescribed information is missing or incomplete in any respect and/or prescribed conditions are not fulfilled may be liable for rejection.
- 3.23** Canvassing in connection with tenders is strictly prohibited and tenders submitted by the tenderers, who resort to canvassing, will be liable for rejection.
- 3.24** Tenderers, in their own interest are advised to read the tender document completely and carefully, to avoid submission of incomplete bid. Tender in which any of the particulars and prescribed information is missing or incomplete in any respect and/or prescribed conditions are not fulfilled are liable for rejection, at the sole discretion of the Company.
- 3.25** The Company takes no responsibility for delay, loss or non-receipt of documents sent through post/courier service. Offers through post/Telegraph/Fax/E-mail/Telex shall not be accepted.

CLARIFICATIONS OF CONTENTS OF TENDER DOCUMENT

- 3.26** In case an intending tenderer require any clarification in connection with, or any point covered by the tender documents, or as to any matter or work to be done or not to be done by him in the event the contract for the work is awarded to him, he must submit a request for such clarification in writing so as to reach the Company before the date of Pre-bid meeting or as otherwise prescribed in S.C.C.(Special Conditions of Contract) Copies of any such clarifications furnished by the Company will be supplied to all other intending tenderer to whom tender documents have been issued by the Company and such clarifications will constitute addenda/corrigenda to, and be read as part of the tender document.

3.27 The Company will not be bound by any verbal/oral clarification or interpretation of the tender document or of any matter(s) connected with works to be executed in accordance with the tender documents, which may be made by any of its employee, representatives or agent.

3.28 Any neglect or failure on the part of the tenderer in obtaining necessary and reliable information upon the foregoing or any other matters affecting the contract shall not relieve him from any risks or liabilities or the responsibility from completion of the works at the scheduled rate/s & time and in strict accordance with the contract document/s.

ADDENDA/CORRIGENDA

3.29 Addenda/Corrigenda to this tender document may be issued to clarify documents or to reflect modification in the specifications or terms & conditions or scope of work or for any other reasons.

3.30 Addenda/corrigenda to these tender documents, if issued by the company, shall form an integral part of this tender document and must be signed and submitted/uploaded along with the bid.

CURRENCIES OF THE BID AND PAYMENT

3.31 The unit rates and prices shall be quoted by the tenderer entirely in Indian Rupees.

SUBMISSION OF TENDERS

3.32 The tenders shall be submitted online as prescribed above in the tender document. The "Techno – commercial Bid" should contain the following:

- i) Complete tender document digitally signed by the tenderer / authorized representative of the tenderer.
- ii) All details as per form 1 to 8
- iii) Details of Earnest Money Deposit.
- iv) Power of Attorney in favour of the authorised representative signing the tender, as required.
- v) Attested Certificate of Incorporation/Memorandum & Article of Association /Partnership deed duly certified by the Company Secretary/gazetted officer as the case may be.
- vi) Collaboration agreement, if any.
- vii) Attested copy of the Audited Balance Sheet and Profit & Loss account for the Financial Years prescribed in the tender conditions in support of the Net worth.
- viii) Certificate from chartered accountant in support of Net worth.
- ix) Certified copy of documents in support of work experience like work orders, work completion certificates etc.(Form-7)
- x) Provident Fund Account Number of establishment and its effective date/undertaking as per enclosed format.
- xi) The tenderer should not put any counter condition. Should it become unavoidable then such exception / deviation to tender conditions be given in a separate sheet, in Form-8,as provided in the tender document.
- xii) Undertaking/Declaration/compliance as per annexure-I to VI of tender document.

3.33 Tenderer must upload the documents duly attested by Gazetted Officer/Notary Public/Magistrate in support of above required details and any declaration

given by the tenderer without requisite supportive documents will not be considered. It may be noted that the bid shall be examined on the basis of documents uploaded, as per above required details, furnished along with it. A tenderer shall be fully responsible for consequences including rejection of his tender or cancellation of the Contract if the required attested documents/attested copies of documents are not submitted/uploaded along with the techno-commercial bid or any information/document is found to be false/fabricated/misleading. The authorised signatory of the tenderer should put his signature along with its stamp on each page of the Techno-commercial bid and should also record the date.

3.34 PART-II Price Bid' (BOQ)

- (a) The 'Price Bid' shall be submitted online through <https://eproc.rajasthan.gov.in> in the prescribed format. The tenderer is to quote the rate in the prescribed forms **BOQ1 & 2**.
- (b) The Price Bid Form will be in spreadsheet format. The original Price Bid Form should be downloaded, filled and signed using the DSC. The Price Bid Form should not be changed or altered or tampered. If the Bid form is tampered, the Bids will be summarily rejected. The Price Bid Form should not contain any conditional offers or variation clauses; otherwise the Bids will be summarily rejected. The Prices quoted shall be only in INR only. The tender is liable for rejection if Price Bid contains conditional offers
- (c) While quoting the price under this part, the tenderer is deemed to have confirmed that the prices quoted are for the total scope of work as described in the tender document and required to be executed as per site requirement and for successful execution of contract in totality.
- (d) The contract rates shall be on 'firm price' basis during pendency of the contract and the Contractor shall not be eligible for any escalation.
- (e) The rates quoted will be inclusive of all taxes including service tax, duty and levies as applicable on this contract (up to the last date of submission of bids).

DEADLINE FOR SUBMISSION OF BIDS

- 3.35 The Company may extend the deadline for submission/uploading of Bids by issuing an amendment, in which case all rights and obligations of the Company and of the Tenderers, which were previously subjected to the original deadline, will then be subjected to the new deadline.

OPENING OF THE TENDER

- 3.36 The Techno-Commercial Bid of the offer will be opened as per NIT . If the date fixed for opening of tenders happens to be a holiday for any reason, the tenders will be opened on the next working day at the same time.

EXCEPTIONS AND DEVIATION

- 3.37 Tenderers are advised to submit quotations based on the terms and conditions and specifications contained in the tender document and not to stipulate any deviations. Bids containing stipulations of deviation to the terms and conditions are liable to be ignored. In case it is absolutely unavoidable to deviate from tender conditions then the tenderers should mention the deviations at their risk of rejection only in Form-E. Deviations mentioned anywhere else in the bid shall be ignored without any consequences.

- 3.38 The Company reserves the right to summarily reject such conditional bids or evaluate such bids, after loading financial implications (i.e. by adding the cost of such deviations as determined by the company) due to these exception /deviation, at its sole discretion. If the bidder has taken the deviations of the nature for which financial loading is not possible/difficult then RSMML may reject the offer at its sole discretion.

EARNEST MONEY

- 3.39 The tenderer shall pay Earnest Money of **Rs. 50.0 Lac only** in the form of crossed Demand Draft or Bank Guarantee of equivalent amount in our format given in annexure having validity of six months (with additional grace period of 3 months) from the date of submission in favour of the Company and drawn on any public sector bank/Axis/ICICI/HDFC bank having its branch at Udaipur, Rajasthan and attach the same in original with the techno-commercial bid of the tenderer, failing which the bid is liable to be rejected. No interest shall be paid by the company on the earnest money so deposited by the tenderer. The earnest money of the tenders whose bid is not found to be acceptable on evaluation of their techno-commercial bids will be refunded at the earliest. The earnest money of the tenderer who are technically successful but not awarded the work shall be refunded after issuance of DLOA to successful tenderer and its acceptance by him. The earnest money deposited by the successful tenderer will be refunded after submission of SD, but shall stand forfeited if the tenderer fails to furnish security deposit and/or fails to initiate requisite action within a period of 30-days from the date of issue of LOA.
- 3.40 The earnest money of a tenderer shall be forfeited in the following cases:-
- a) If the tenderer withdraws or modifies the offer after submission of the tender.
 - b) If the tenderer does not submit the prescribed Bank Guarantee/DD as security deposit within 30 days of the date of work order/LOA issued in favour of tenderer.
 - c) If the tenderer does not execute the agreement, in the prescribed form within 60-days of the date of work order/LOA issued in favour of tenderer.
 - d) If it is established that the tenderer has submitted any wrong information/ forged documents alongwith the tender or thereafter.

VALIDITY

- 3.41 Tender submitted by tenderer shall remain valid for acceptance for a period of 180 days, from the date of opening of tender (Part I of the offer). An offer with a validity period of less than 180 days is liable to be rejected. The tenderer on its own shall not during the said period of 180 days or in agreed extended period cancel and/or withdraw his tender nor shall he make any variation therein. In case of tenderer revoking, cancelling, modifying and/or withdrawing his bid during the validity of bid, the earnest money deposited by him along with tender shall stand forfeited and tender will not be considered for further evaluation.
- 3.42 In exceptional circumstances, prior to expiry of the original time limit, the Company may request the tenderer to extend period of validity for a specified additional period. The request and the tenderer's responses shall be made in writing. A tenderer if agreeing to the request will not be required or permitted to modify his bid.

EXAMINATION OF BIDS AND DETERMINATION OF RESPONSIVENESS

- 3.43 Prior to the detailed evaluation of Bids, the Company will determine whether each Bid:
- i) has been properly signed;
 - ii) is accompanied by the required securities; and
 - iii) is substantially responsive to the requirements of the Bidding documents.
- 3.44 A substantially responsive Bid is one which confirms to all the terms, conditions of the Bidding documents without material deviation or reservations. A material deviation or reservation is one:
- i) which affects in any substantial way the scope, quality, or performance of the work; and/or
 - ii) which limits in any substantial way the Company's right or the Bidder's obligation under the contract; and/or inconsistent with the Bidding documents.
 - iii) whose rectification/acceptance would affect unfairly the competitive position of the other Bidders presenting substantially responsive Bids.

OPENING OF THE TENDER

- 3.45 The Techno-Commercial part of the offer will be opened in the office of the Advisor & Head (Projects), Corporate Office, 4 Meera Marg, RSMML, Udaipur - 313004, Rajasthan.
- 3.46 If the date fixed for opening of tenders happens to be a holiday for any reason, the tenders will be opened on the next working day on same time.

EVALUATION OF TECHNO-COMMERCIAL BID

- 3.47 The techno-commercial bids of substantially responsive tenderer's will be evaluated from all aspects. The RSMML reserves the right to assess the capability and competency of the tenderer based upon the information provided by the tenderer in the techno-commercial bid and the information that may otherwise be available to and/or gathered by the RSMML. The decision of the RSMML as to which tenderer is capable & competent to carry out the work shall be final. The tenderer should, therefore, see that he has required level of technical, financial & managerial competence & experience before submitting the tender.
- 3.48 The tenderer shall be prepared to furnish clarification/information and attend meetings/discussions as required by the company from time to time.

CORRECTION OF ERRORS

- 3.49 Price Bid (Part – II) subsequent to its opening will be checked by the Company for any arithmetical errors. Errors will be corrected by the Company as follows:
- a) where there is discrepancy between the amounts in figures and in words, the lower of the two would be taken ; and
 - b) where there is a discrepancy between the unit rate and the line item total resulting from multiplying the unit rate by the quantity, the unit rate as quoted will govern; and
 - c) Discrepancy in totalling or carry forward in the amount quoted by the contractor shall be corrected. The tendered sum so corrected and altered shall be substituted for the sum originally tendered and will be considered for acceptance instead of original sum quoted by the tenderer.

- 3.50 The amount stated in the Bid will be adjusted by the Company in accordance with the above procedure for the correction of errors and, shall be considered as binding upon the Bidder.

DETERMINATION OF THE LOWEST BIDDER

- 3.51 The Part II of bid i.e. Price Bid of the short-listed bidders shall be evaluated for deciding the lowest tenderer as per the procedure prescribed in clause 5.3.2 of the tender document.

NEGOTIATION

- 3.52 Negotiations will be conducted with the lowest tenderer only. In case of non-satisfactory achievement of rates from lowest tenderer, RSMML may choose to make a written counter offer to the lowest tenderer and if this is not accepted, RSMML may decide to reject and re-invite fresh tenders or to make the same counter-offer first to the second lowest tenderer, then to the third lowest tenderer and so on in the order of initial bidding, and work order be awarded to the tenderer who accepts the counter offer.
- 3.53 In the case, when the offer given by the tenderer during negotiations is higher than the original offer of the tenderer then the tenderer will be bound by the lower rate originally quoted by the tenderer.
- 3.54 In case of negotiations, representative of the tenderer attending negotiations must possess written authority from the tenderer to the effect that he is competent to modify/amend the submitted tender deviations and rates offered by them.

PROCESS TO BE CONFIDENTIAL

- 3.55 Information, relating to the examination, clarification, evaluation and comparison of Bids and recommendations for the award of a contract shall not be disclosed (subject to provisions of right to information act, 2005) to the bidders or any other person. Any effort by a Bidder to influence the Company's processing of Bids or award decision may result in rejection of his bid.
- 3.56 The tenderer may note that indulgence in submitting unsolicited offers or submitting unsolicited correspondence after submission of bid is liable to debar him from participating in RSMML tenders.

NOTIFICATION OF AWARD AND SIGNING OF AGREEMENT

- 3.57 The tenderer, whose Bid has been accepted, will be notified of the award by the Company, through postal communication or through facsimile confirmed by registered letter/speed post. This letter (hereinafter and in Conditions of Contract called the "Letter of Acceptance/ Detailed Letter of Acceptance ") will state the sum unit / Rate that the Company will pay to the Contractor in consideration of the execution and completion of the work awarded as prescribed in the Contract.
- 3.58 The notification of award will constitute the formation of Contract. The execution of agreement as per clauses, below would be the formalization of agreement that was commenced with the issuance of LOA/DLOA.

SIGNING OF THE CONTRACT AGREEMENT

- 3.59 The successful tenderer shall be required to execute an agreement on non-judicial stamp paper of appropriate value under Indian Stamp Act with the

company within 60 days from the date of intimation regarding acceptance of tender (LOA/ DLOA). The cost of execution of agreement including non-judicial stamp paper shall be borne by the contractor.

- 3.60 The contract agreement shall consist of –
- i) An agreement on non-judicial stamp paper of appropriate value.
 - ii) Tender document along with the addend/corrigenda, if any.
 - iii) Letter of Acceptance & Detailed Letter of Acceptance.
 - iv) Agreed Variation, if any,
 - v) Techno-commercial offer.
 - vi) Any other document as mutually agreed.

RIGHTS OF COMPANY

- 3.61 The Company reserves the right -
- i) To reject any or all the tenders, in part or in full, without assigning any reason, there to,
 - ii) Not to accept the lowest tender or assign reasons for not accepting the lowest tender.
 - iii) Not to carry out any part of work.
 - iv) To reject the offer, if it is established that the tenderer has submitted any wrong/misleading information or forged documents along with offer or thereafter.

REFUSAL / FAILURE

- 3.62 In the event the Tenderer, after the issue of communication of Acceptance of Tender by the Company (LOA/DLOA), fails/refuses to accept the award and/or commence execution of the work as herein before, the Tenderer shall be deemed to have abandoned the contract and such an act shall amount to and be construed as the Contractor's calculated and willful breach of contract, and in such an event the Company shall have full right to claim damages/compensation thereof in addition to the forfeiture of Earnest Money/Security Deposit so deposited.

SECTION IV
GENERAL CONDITIONS OF CONTRACT (GCC)

INTERPRETATION OF CONTRACT DOCUMENT

- 4.01 Except if and to the extent otherwise provided by the contract, the provisions of the general conditions of the contract and special conditions of the contract shall prevail over those of any other documents forming part of the contract.
- 4.02 Several documents forming the contract are to be taken as mutually explanatory. Should there be any discrepancy, inconsistency, error or omission in the contracts or any of the matter may be referred to the Engineer-In-charge whose decision shall be final and binding.
- 4.03 In case of any inconsistency or contradiction between the provisions of General Conditions of Contract and Special Conditions of Contract, the Special Conditions of Contract shall prevail unless and until provided otherwise.

SECURITY DEPOSIT

- 4.04 The successful tenderer shall furnish a Security Deposit of 5% of total contract value of turnkey project (except O&M contract value).
- 4.05 The tenderer shall furnish Security Deposit through Bank Guarantee/ Demand Draft in favour of RSMML, Udaipur, within 30 days of the issuance of such communication of acceptance of tender/Letter of Acceptance(LOA), for due fulfilment of all or any of the terms & conditions of the contract. The Bank Guarantee shall be provided only in the approved format of the company from a public sector bank, or ICICI, or AXIS, or HDFC bank having its branch at Udaipur. No amendment in this format shall be acceptable to the company. The Bank Guarantee shall be valid up to commissioning period plus a grace period of 3 months. The Company shall be entitled to en-cash the same and appropriate the whole of the amount or part thereof against its claims /dues or sums payable as contained herein.
- 4.06 The entire Security Deposit shall be refunded after **three months of the successful commissioning of the entire project**, provided always that the Contractor has been first paid all the bills including his final bill subject to deductions as are permissible under these terms and all other dues to the Company arising out of this contract, if any, have been fully met by the Contractor and the Contractor has rendered "No Claim & No Dues Certificate" and indemnification in favour of the Company.
- 4.07 The Security Deposit shall be liable to be forfeited wholly or partly at the sole discretion of the Company, should the Contractor either fail to fulfill the contractual obligations or fail to settle in full, his dues to the Company. In case of premature termination of the contract, the Security Deposit will be forfeited and the Company will be at liberty to recover the loss suffered by it from the Contractor.
- 4.08 The Company may recover from the Security Deposit any sum due and any other sum that may be fixed up by the Company as being the amount of loss or losses or damages suffered by it due to delay in performance and/or non-performance and/or partial performance of any of the terms of the contract.

- 4.09 All compensation or other sums of money payable by the Contractor to the Company or recoveries to be made under the terms of this contract may be deducted from any sums which may be due to the Contractor from the Company on any account and in the event of the such amount being insufficient the Contractor shall within ten days of such shortfall make good in cash, failing which the balance amount shall be recovered by way of invoking the bank guarantee furnished as security.
- 4.10 In the event of bank guarantee amount being insufficient, then the balance recoverable amount shall be deducted from any sum, then due or which at any time thereafter may become due to the contractor. The Contractor shall pay to the company on demand any balance remaining due.
- 4.11 In case the Bank Guarantee is invoked for any reason/s, the contractor is required to furnish a fresh Bank Guarantee in the same format for the same amount and for the same period as the original Bank Guarantee within a period of 30 days from the date of invoking of original Bank Guarantee.
- 4.12 In the event of security amount at any time during the currency of the contract falling short of the specified amount, the Contractor shall forth with make good the deficit on demand, so that the total amounts of Security Deposit will not at any time be less than the amount so specified. The Company may recover the same by way of additional deductions from bills.
- 4.13 No interest is payable on S.D. amount.
- 4.14 In case of enhancement of quantum of work, due to any reason, the contractor shall furnish additional security deposit. In that case an additional BG equivalent to 5%of additional value of work shall be furnished.
- 4.15 If the Contractor/sub-contractor or their employees cause any damage or destroy the property belonging to the Company or others during the execution of the contract, the same shall be rectified/repaired/replaced by the Contractor at his own expense and in default thereof, the Engineer-In-Charge may cause the same to be rectified/repaired/replaced by other agencies and recover expenses from the contractor (for which the decision of the Engineer-In-Charge shall be final and binding on the contractor).

Retention Money: (towards performance of Solar Power Plant)

- 4.16 The contractor shall provide a bank guarantee as follows:-

Year	Amount
For-2-years plus grace period of 6-months.	20% of the contract value excluding the O&M cost after -issue of work completion certificate.
3-20 years	10% of the contract value excluding the O&M cost or the revenue shortfall for the last block period, whichever is higher, This BG is to be maintained for the entire contract period. Initially BG submitted shall be valid for a period of 2- years plus a grace period of 6-months.contractor shall submit new BG/extension for 2 year plus grace period of 6 months at least one month prior to completion of grace period. In event of non submission of new BG/extension in time, RSMML may invoke the BG.

NOTE: The energy shortfall shall be calculated for a block period of two years. It is the difference of NMGG and actual generation achieved in a block period of 2-years.

For the purpose of calculation of the revenue shortfall, the tariff payable by the contractor to RSMML shall be @ Rs.12.00 for 3-years and Rs. 9.00 for balance 17-years.

Submission of Bank Guarantees:

- 4.17 All Bank Guarantees shall be submitted from any public sector bank/ ICICI Bank/ HDFC Bank/ Axis Bank, having its Branch office at Udaipur, Rajasthan on non judicial stamp paper of appropriate value as per Rajasthan stamp act, which is presently 0.1% of BG amount subject to minimum of Rs.200.

PROVIDENT FUND

- 4.18 The contractor shall be wholly responsible for complying with the fulfilment of the provisions of the Employees Provident Fund and Miscellaneous provisions Act, 1952 including subsequent amendments & notifications, in respect of the employees engaged for the work.
- 4.19 The Contractor who is coming up under the purview of EPF & MP Act, 1952 shall have to get himself registered (if not already registered) with the Regional Provident Fund Commissioner (RPFC) under the Employees Provident Fund and Miscellaneous Provisions Act, 1952. Tenderer is required to submit the copy of the PF Registration Number received from RPFC office when asked for the same, failing which the contract is liable to be terminated.

SUBLETING OF WORK:

- 4.20 The Contractor shall have the sole responsibility for whole of the work included in the contract. In case contractor directly or indirectly transfer, assign, under-let or sublet the contract or any part thereof in interest of work even then the total responsibility of the work as per bid stipulations will lie with the contractor alone.

DRAWINGS AND SPECIFICATIONS

- 4.21 Wherever it is mentioned in specifications /drawing/tender documents or instructions that the contractor shall perform certain work and/or provide certain facilities, it is understood that the contractor shall do so at his own cost.

PATENTS/COPY RIGHT/TRADE MARK

- 4.22 Contractor shall indemnify and keep indemnified the Company including its employees and authorised agents/representatives and its successors shall hold them harmless from any and all loss, damage, liability costs of litigation counsel fees and other expenses arising out of any claim or suit for alleged infringement of patents, copyright trademarks or trade names or brand relating to any of the stores, material or equipment described in the contract or for the use or resale thereof, and contractor agrees to assume the defence of any and all such suits and to pay any and all costs and expenses incidental thereto and any judgment awarded thereon.

CONTRACTOR TO BE LIABLE FOR ALL PAYMENT TO HIS WORKERS/ EMPLOYEES

- 4.23 The contractor shall be liable for payment of all wages and other benefits, such as leave with wages, contributory provident fund, bonus, free medical aid etc., to his employees and labour as per the statutory requirements as in force or, may be applicable from time to time during the currency of the contract.
- 4.24 The contractor shall bear all liabilities for employee and labour employed or retained by him as regards to their employment, litigation and any other action arising out of operation of this contract or at the termination/completion of this contract.
- 4.25 The company shall not pay any additional amount on any such account.

TAXES AND DUTIES:

- 4.26 The Contractor shall be responsible for the deposition of any and all contributions, duties, levies and taxes etc. payable now or hereinafter to be imposed by the Central or State Government authorities, for execution of the works under the contract.
- 4.27 All statutory deductions at source such as Income Tax, Works Contract Tax etc. shall be made as per prevailing laws, from the bills of the contractor.
- 4.28 As per the details available with the company, the rate of service tax on O&M services is 12% & cess charges @ 3 % thereon. Any tenderer who is eligible either for exemption of service tax or for a concessional service tax, may confirm the same in the part -I (Techno-commercial part) of the offer by attaching related documents.
- 4.29 C-form shall not be issued.

VARIATION IN TAXES & DUTIES

- 4.30 RSMML will reimburse/recover at actual tax/ duties which are imposed/withdrawn or /increased/decreased after the date of submission of offer & are directly applicable to this contract and first paid by the contractor, on the items as mentioned in bid response sheet No.1, subject to the furnishing of documentary proof. The bidder shall specify in Annexure-1' the rate of tax/duty considered by him in his bid.

INDEMNITY

- 4.31 The Contractor shall at all times, indemnify and keep indemnified the Company, including its employees, authorised agents and the Engineer-in-Charge its successors from any and all liability for damages resulting from or arising out of or in any way connected with the operation covered by the contract and he shall make good all losses and damages arising there from. In case the Company shall incur any cost or expenses or suffer any loss on account of any claim demand or course of action brought against them and arising out of the operations covered by the contract, the Company shall have the power (without being bound to do so) to defend, contest or compromise any such claim, demand or cause of action. Any amount that may become payable by the Company and

any cost, expense etc that may be incurred by the Company in this behalf, shall also be recoverable from the Contractor.

- 4.32 All sums payable by way of compensation/s under any of these conditions shall be considered as reasonable compensation to be applied to the use of the Company without reference to the actual loss or damage sustained and whether or not any damage shall have been sustained.
- 4.33 Contractor shall also keep indemnified the Company against all claims of its staff under Industrial Disputes Act, Payment of Wages Act and other Acts/Rules applicable on the awarded work to the contractor.

WAIVER AND LIABILITY TO PAY COMPENSATION:

- 4.34 In any case in which any of the powers conferred upon the Company shall have become exercisable and the same have not been exercised, the non-exercise thereof shall not constitute a waiver of any of the conditions hereof and such powers shall be exercisable in future or in the event of any further case of default by the Contractor, the contractor shall be liable to pay compensation amount to the extent of the whole of his Security Deposit and the liability of the Contractor for past and future compensation shall remain unaffected.
- 4.35 In the event the Company exercising the powers vested in it under the aforesaid clause, it may, take possession of all or any tools and equipment, materials and stores lying in or upon the works or the site thereof belonging to the Contractor or procured by him and intended to be used for the execution of the work or any part thereof. The same be taken by paying reasonable compensation as decided by the Company, otherwise the Engineer-In-Charge may give notice to the Contractor, requiring him/it to remove such tools, equipment, materials or stores from the premises (within a time to be specified in such notice), and in the event of the contractor failing to comply with such requisition the Engineer-In-Charge may remove them at the contractor's expenses or sell them by auction and/or private sale on account of the contractor and at his/its risk in all respects without any future notice as to the date, time or place of sale and the certificate of the Engineer-in-Charge as to the expenses of any such removal and the amount of the proceeds and expenses of any such sale shall be final, conclusive and binding on the Contractor.

COMPANY NOT LIABLE TO PAY COMPENSATION:

- 4.36 The Contractor shall have no claim against the Company for any business loss, idle charges, compensation upon failure, delay, omission etc. on the part of the Company to carry out any or all the provisions of the contract for any reason whatsoever. The Company's decision in the matter shall be final and binding on the Contractor.

NO CLAIM IF WORK IS ABANDONED OR POSTPONED/ SUSPENDED:

- 4.37 The Contractor have no claim, whatsoever against the Company if the work or any part thereof covered by the contract is postponed/ suspended to any later date and/or withdrawn in part in the overall interest of the Company. The Company's decision in this regard shall be final and binding on the Contractor.

PROTECTION OF WORK:

- 4.38 During the progress of the work the Contractor shall keep the premises occupied by him in a neat and clean condition and free from accumulation of rubbish. On the completion of any portion of the work, the Contractor shall promptly remove all his equipment, temporary structures and surplus materials not to be used at or near the same location during later stages of the work. Upon completion of the work and before final payment is made, the Contractor shall at his own cost and expense, satisfactorily dispose off or remove from the vicinity of the work and from all other land made available to him by the Company; all equipment, temporary structures, buildings, rubbish, unused materials and any other items and materials etc. belonging to him and used under his direction for the execution of the contract and shall leave the premises in a neat and clean condition. In the event of his failure to do so, the same may be removed and disposed off by the Company at the Contractor expenses.

USE OF COMPLETED PORTIONS:

- 4.39 Whatever, in the opinion of the Company the work or any part thereof is in a condition suitable for use and in the best interest of the Company requires use, the company may take possession thereof, or use the work of such part thereof. Prior to the date of final acceptance of work all necessary repairs and renewals etc. in the work or part thereof shall be at the expenses of the Contractor.
- 4.40 All necessary repairs and renewals in the work or part thereof, shall be at the expenses of the Contractor. The use by the Company of the work or part thereof as contemplated in this clause shall in no case be construed upon constituting acceptance of the work or any part thereof. Such use shall neither relieve the Contractor of any of his responsibilities under the contract, nor act as a waiver by the Company of the conditions thereof. However, if in the opinion of the Company the use of the work or part thereof delays the completion of the remainder of the work, the Company may grant such extension of time as it may consider reasonable if so requested by the Contractor. The decision of the Company in the matter shall be final and binding on the Contractor. The Contractor shall not be entitled to claim any damages, compensation on account of such use by the Company.
- 4.41 All the works shall be executed in strict conformity with the provisions of the contract documents and with such explanatory detailed drawings, maps, specifications and instructions as may be issued from time to time to the contractor by the Engineer-in-Charge whether specifically mentioned in the contract or not. The contractor shall be responsible for ensuring that works throughout are executed in most substantial, proper and workmanship like manner with the quality of material and workmanship in strict conformity with the specifications, drawings, time schedule, sequence of operation etc. and to the entire satisfaction of the Engineer-in-Charge.

CO-ORDINATION AND INSPECTION OF WORK:

- 4.42 The co-ordination and inspection of the day to day work under the contract shall be the responsibility of the Engineer-in-Charge. The written instructions regarding any particular job will normally be issued by the Engineer-in-Charge or his authorised representative. A register shall be maintained by the Contractor in which the Engineer-in-Charge after inspection shall write the instructions to be

issued by the Engineer-In-Charge and these will be signed immediately by the Contractor or his authorised representative by way of acknowledgement.

WORK ON WEEKLY DAY OF REST AND HOLIDAYS:

- 4.43 Subject to the compliance of legal provisions and various laws applicable, and conditions of service of workmen for carrying out work on the weekly day of rest and holidays, no extra payment will be considered for working on weekly day of rest and other holidays. As project being turnkey, all responsibility etc. rest on contractor.

OTHER CONDITIONS, OVERTIME ETC:

- 4.44 The Contractor must arrange for the placement of his workers in such a way that the delayed completion of the work or any part thereof for any reason whatsoever will not affect their proper employment. The Company will not entertain any claim for idle time payments whatsoever.
- 4.45 The provisions of Contract (R&A) Act 1971 and Workman Compensation Act 1923, Minimum Wages Act 1948 etc. should be kept in view, while detailing matters like wages, working hours, overtime etc. The Compliance of the provisions of these and other applicable acts and rules made thereof has to be ensured by the Contractor at his own cost.

MATERIALS TO BE SUPPLIED BY CONTRACTOR:

- 4.46 The Contractor shall procure and provide from his own source and at its own cost of the materials, tools, tackles, equipment, stores materials etc. required for the execution and completion of the works.

DISCREPANCIES BETWEEN INSTRUCTIONS:

- 4.47 Should any discrepancy occur between the various instructions furnished to the Contractor, his agents or staff or any doubt arising as to the meaning of any instructions or should there be any misunderstanding between the Contractor's staff, the Contractor shall refer the matter immediately in writing to the Engineer-in-Charge whose decision thereon shall be final and conclusive and no claim for losses alleged to have been caused by such discrepancies shall in any case be admissible.

INSPECTION OF WORKS:

- 4.48 The Engineer-in-Charge or his authorised representative will have full powers and authority to inspect the works in progress at any time and the Contractor shall afford or procure for the Engineer-in-Charge/Engineer every facility and assistance, to carry out such inspections. The Contractor shall, at all time during the usual working hours and at all other times of which reasonable notice of the intention of the Engineer-in-Charge or his representative to visit the works shall have been given to the Contractor, whether himself be present to receive orders and instructions or have a responsible agent duly accredited in writing present for the purpose. Orders given to the Contractor's agent shall be considered to have the same force as if they had been given to the Contractor himself/itself.

ASSISTANCE TO THE ENGINEERS:

- 4.49 The Contractor shall make available to the Engineer-in-Charge free of cost all necessary assistance in checking of, setting out of works, and in the checking of any works made/done by the Contractor.

CONTRACTOR'S OFFICE AT SITE:

- 4.50 The Contractor shall provide and maintain an office at the site. Such office shall be opened during working hours/at all reasonable hours to receive instructions, notices and/or other communications etc, on its behalf from the Company

SAFETY, SANITARY & MEDICAL FACILITIES:

- 4.51 The Contractor and/or his sub-contractor and their employees, at Contractor's cost, shall fully comply with the safety rules, regulations or statutory directions and provide sanitary and medical facilities, prescribed by law or as may from time to time be prescribed by the Engineer-in-Charge with the object of securing the safety and health of the employees and the local community. In case of violation or non-observance of any of the aforesaid provisions by the Contractor the same shall be the responsibility of the contractor alone.
- 4.52 The Contractor shall be responsible for the safety and discipline of his employees in all faces of the work and shall provide at his cost and enforce the use of safety belts, safety boots, guards, helmets, goggles and other safety devices etc that may be required by the Acts & Rules and regulations for the time being in force, or will come in force during the pendency of contract.
- 4.53 First aid facilities and supplies as required by the rules for the time being in force or will come in force in near future shall be kept on the work site by the Contractor at his cost. Medical check-ups of employees/persons working with the contractor, as required under the rules, shall be undertaken by the Contractor at his cost.

CONTRACTOR'S SUBORDINATE STAFF AND THEIR CONDUCT:

- 4.54 The contractor shall have the sole and exclusive responsibility for supervision of the work by qualified executives. The work shall be executed by the Contractor with his/their best skill, attention and supervision. The Contractor shall also employ and engage to the satisfaction of the Engineer-in-Charge sufficient and qualified staff to execute and supervise the execution of the works, in such manner as will ensure work of the best quality and expeditious working. Whenever in the opinion of the Engineer-in-Charge additional and sufficiently qualified supervisory staff is considered necessary, they shall be employed by the Contractor without additional charge on account thereof. The Contractor shall ensure to the satisfaction of the Engineer-in-Charge that sub-contractors, if any, provide competent and efficient supervision, over the work entrusted to them.
- 4.55 The Contractor shall be responsible for the proper conduct and behaviour of all the staff, foreman, workmen and others and shall exercise a proper degree of control over them and in particular and without prejudice to the aforesaid generally the Contractor shall be bound to prohibit and prevent any employees from trespassing or acting any way detrimental or prejudicial to the interest of the community or of the properties or occupiers of lands and properties in the neighbourhood and in the event of such employee so trespassing, the Contractor

shall be responsible thereof and relive the Company of all consequent claims or actions for damages or injury or any other grounds, whatsoever.

PREVENTION:

- 4.56 The Contractor shall take all reasonable precautions to prevent fire in the vicinity of his/its operations, and shall be liable for all damage losses or injury from fires directly or indirectly to his/its own operations or the activities of his employees or his sub-contractors or their employees.

POWER OF ENTRY

- 4.57 During execution of Contract, if in the opinion of Engineer In-charge, it is found that :

- i) Contractor has failed to execute the Contract in conformity with contract document, or
- ii) Contractor has substantially suspended work or the works for a continuous period of 15 days without permission from the engineer In-charge , or
- iii) Contractor has failed to carry on and execute the works to the satisfaction of the engineer In-charge, or
- iv) Contractor has committed or suffered or permitted any other breach of any of the provisions of the contract on his part to be performed. or
- vi) Contractor has abandoned the works, or
- vii) Contractor during the continuance of the contract has becomes bankrupt.

-then in any of such events, the Company shall have the power to enter upon the works and take possession of the materials, spares, equipment, tools and stocks thereon, and to revoke the Contractor's permission to continue the work. The Company shall then be free to take appropriate action against the contractor as per provisions of contract.

LIENS:

- 4.58 If, at any time, there should be any lien or claim for which the company might have become liable and which is chargeable to the Contractor, the Company shall have the right to retain out of any payment then due or thereafter to become due an amount sufficient to completely indemnify the Company may pay and discharge the same by and payable to the Contractor. If any lien or claim remains unsettled after all payments due to the Contractor are appropriated on the account, the Contractor shall refund or pay to the Company all moneys that the later may be compelled to pay in discharging of such lien or claim including all costs and reasonable expenses thereof.

COMPLIANCE IN RESPECT OF VARIOUS ACTS

- 4.59 The Contractor shall at his own cost, observe, perform and comply with the provisions of the Acts applicable during the execution of the Contract, and Rules/Bye-laws framed there under as applicable to this work and shall maintain such registers and documents, as are required under the various statutes, for production of the same before the Company and/or other Statutory Authorities prescribed in this behalf, as and when required. Non-compliance of the provisions/stipulations of the those Acts and rules made there under will render the Contractor liable to payment of necessary compensation/penalty, as deemed fit by statutory authorities.

- 4.60 It will be the sole responsibility of the Contractor to ensure all sorts of payments to his workers and submissions of returns in time, as required by various Statutory Authorities concerned. In case of default by the Contractor in making statutory payments in time, the Company reserves the right to deduct necessary amount from the Contractor's bills towards such payments without prejudice to the rights & remedies of the Company.
- 4.61 The Contractor should obtain all requisite licenses as early as possible on award of work and preferably prior to commencement of work so to avoid any breach of law.
- 4.62 All persons other than his regular employees engaged by the Contractor in connection with the performance of the contract shall be deemed as his employees for purposes of payment/remuneration employees and no claim shall lie against the company in respect of delay, deduction and non-payment of wages and/or remuneration/compensation by the Contractor to them.

COMPENSATION AND LIABILITY:

- 4.63 Insurance shall be affected by the contractor at his cost for all the contractor's employees and persons engaged in the performance of the contract. If any of the work is sublet the contractor shall require the sub-contractor to provide for workman's compensation and employer's liability insurance for the latter's employees if such employees are not covered under the Contractor's insurance.
- 4.64 The Company shall not be liable for or in respect of any damages or compensation payable as per law in respect of or in consequence of any accident or injury to any workman or other person in the employment of the contractor or any of his sub-contractor or third party etc and the Contractor shall indemnify and keep indemnified the Company against all such injury, damages and compensation and against all claims, demands, proceedings, costs, charges and expenses, whatsoever in respect of or in relation thereto.

FORCE MAJEURE:

- 4.65 Neither the Contractor nor the Company shall be considered to be in default in the performance of their respective obligations under this contract, if such performance is prevented or delayed because of the conditions constituting force majeure which shall include but not limited to notice/s from Statutory Authority, Civil Commotion, flood, Fire accidents, epidemics, War, acts of God or because of any law, order, proclamation or ordinance of any Government or any authority thereof, provided notice of such cause is given in writing by the party affected within 7 days of the happening of the event. In case it is not possible to serve the said notice within the said period of 7 days, then within the shortest possible period. Power cuts/partial power failure/interruption shall not be construed as force majeure for this purpose and the same shall not affect in any way the performance of the Contract. As soon as the cause of force majeure has been removed, the party whose ability to perform its obligation has been affected shall notify the other of such cessation. Should one or both the parties be prevented from fulfilling their contractual obligations by state of force majeure lasting for a continuous period of one month both the parties shall consult each other and decide about the future course of action regarding the contract.

NOTICES:

SERVICE OF NOTICE ON CONTRACTOR:

- 4.66 Any notice hereunder may be served on the Contractor or his/its duly authorised representative at the work site or may be served by registered mail directly to the address furnished by the Contractor. Proof of issue of any such notices shall be conclusive of the fact that the Contractor having been duly informed of all contents therein. The contractor shall furnish to the Company, the name, designation and addresses of his/its authorised agent at the work site and at (Udaipur).

SERVICE OF NOTICE AND COMMUNICATION WITH THE COMPANY AND THE ENGINEER-IN-CHARGE

- 4.67 Notice and communication addressed to the Company or the Engineer-in-Charge, as the case may be, shall be deemed to have been duly delivered.
- (a) In the case of the Company, if dispatched by registered AD/Speed post to the Company's Group General Manager (Project) at Udaipur.
 - (b) In the case of the Engineer In-charge, if dispatched or left at or posted to the address of his/its authorized representative, in the case of posting on the day on which they would have reached such address in the ordinary course of business, and in other cases on the day on which they were delivered to or left at such address.
- 4.68 Notice and communication addressed to the Company shall be valid only if duly signed by the Contractor or his duly authorised partner or his principal officer acting for him on his behalf.

TERMINATION:

- 4.69 If the Contractor fails to execute the work or any part thereof with such diligence as will ensure its completion within the time specified in the contract, or extension thereof, or fails to complete the said work within such time or fails to perform any of his obligations under the contract or in any manner commits a breach of any of the provision of the contract, it shall be open to the Company in its option, by written notice to the contractor:-
- (a) To determine the contract; in which event the contract shall stand terminated and shall cease to be in force and effect on and from the date notified by the company in this behalf, whereupon the contractor shall stop forthwith all or any of the contract work, then in progress and the Company may on its part, may take over the work remaining incomplete by the Contractor and the contractor and his sureties if any, shall be liable to the company for any excess cost occasioned by such take over and completion by the Company or by appointing any other agency over and above the rates of remuneration payable under the contract.
 - (b) Without determining the contract, to take over the work of the Contractor or any part thereof and complete the same through any other agency at the risk and cost of the Contractor and the Contractor, and his sureties shall be liable to the company for any excess cost/additional cost occasioned by such work having been so taken over and completed by the Company and/or through

any other agency over and above the remuneration payable under the contract.

4.70 Before determining the contract, as aforesaid, and provided that, in the judgement of the company the default or defaults committed by the Contractor is or are curable or may be cured by the Contractor if any opportunity is given to him to do so, the Company may, by notice, in writing, call upon the Contractor to cure the default within such time as may be specified in the notice.

4.71 In the event of the Company proceeding in the manner herein above prescribed-

(a) The whole of the Security Deposit furnished by the Contractor or retained by the Company shall be liable to be forfeited, without prejudice to the right of the Company to recover from the Contractor, the excess cost referred to aforesaid. The Company shall also have the right to take possession of the sites for completing the work or any part thereof, with any or all such materials, equipment, machinery, tools and tackles belonging to the Contractor as may be deployed/used for the work & the contractor shall not be entitled for any compensation for use or damage to such materials, equipment, plant.

(b) The money that may have become due to the Contractor on account of work executed by him/its already shall not be payable to him/its until after the expiry of six calendar months reckoned from the date of determination of contract or from the taking over of the work or part thereof by the company as the case may be, during which period the responsibility for faulty workmanship in respect of such work shall, under the contract rest exclusively with the Contractor and shall be subject to deduction of all amounts due from the Company to the Contractor, whether under the terms of the contract or otherwise, authorised or required to be recovered or retained by the Company.

4.72 The Company shall also have the right to proceed in the manner prescribed in sub-clauses above, in the event of the contractor abandoning the execution of the contract work for a continuous period of seven days, or becoming bankrupt or insolvent, or compounding with his creditors or assignees the contract in favour of his creditors or any other person or persons, or being a firm or a corporation goes, into voluntary liquidation, provided that in the said event, it shall not be necessary for the Company to give any prior notice to the Contractor.

4.73 Termination of the contract as aforesaid shall not prejudice or affect the rights of the Company which may have accrued up to the date of such termination.

DISPUTE, JURISDICTION

4.74 The place of the contract shall be Udaipur, Rajasthan. In cases of any differences, the same shall be resolved by mutual discussions and agreement.

4.75 No courts other than the courts located at Udaipur, Rajasthan shall have jurisdiction over any matter concerning any aspect of the work under this tender.

4.76 The contractor shall not stop or abandon the work due to and during the pendency of such disputes or differences.

GOVERNING LAW:

- 4.77 The contract shall be construed in accordance with and governed by the laws of India.

GOVERNMENT AND STATUTORY CLEARANCES:

- 4.78 The contractor shall be responsible for obtaining all the necessary clearances and permissions for project site.

INTELLECTUAL PROPERTY:

- 4.79 Indemnity Against Infringement-The Contractor shall indemnify the Owner from and against any demands, claims, suits, and causes of action and any liability, legal costs, expenses, settlements arising from or incurred by reason of any infringement or alleged infringement of registered design, unregistered design right, copyright, trade mark or trade name by the use or possession of projects. The Contractor hereby represents to the Owner that, as of the date 30 (thirty) days prior to the date of execution of the contract, the Contractor has received no notification of any rightful patent infringement claim, which would prejudice the Owner's right to use or maintain.
- 4.80 Conduct of Proceedings-In the event of any claim being made or action brought against the Owner which is covered by the indemnity, the Owner shall promptly notify the Contractor thereof and the Contractor may at its own expense conduct all negotiations for the settlement of the same, and any litigation that may arise there from.
- 4.81 Infringement Preventing Performance-If, in consequence of any infringement of registered design, copyright, trademark or trade name, the Contractor is prevented from executing the Works, or the Owner is prevented from using the Project, the Contractor shall at his own expenses procure for the Owner the right to continue using the relevant Project or part thereof with a non-infringing solution, modify the relevant part so it becomes non-infringing.

SECTION V
SPECIAL CONDITIONS

5.1 GENERAL

- a) Special Conditions of Contract shall be read in conjunction with the General Conditions of the Contract, specifications of work, drawing and any other document forming part of this contract wherever the context so requires.
- b) Where any portion of the Special Conditions of Contract is repugnant to or at variance with any provisions of the General Conditions of the Contract then unless a different intention appears, the provision of the Special Conditions of contract shall be deemed to over-ride the provisions of the general conditions of the contract only to the extent such inconsistencies of variations in the special conditions of contract as are not possible of being reconciled with the provisions of general conditions of contract.
- c) The materials, design and workmanship shall satisfy the applicable standards, specifications contained here in and codes referred to. Where the Technical Specifications stipulate requirements in addition to those contained in the standard codes and specifications, those additional requirements shall be satisfied.
- d) In case of contradiction between General conditions of contract, special conditions of contract, the following shall prevail in order of precedence.
 - i) Special Conditions of Contract
 - ii) General Conditions of Contract
- e) Incomplete tenders and tenders without Earnest Money deposit is liable to be rejected. RSMML reserves the right to accept or reject any or all the tenders, in part or in full, and to reject any or all tenders without assigning any reasons whatsoever. Also the Owner does not bind itself to accept the lowest price offer.

5.2 Bidder shall be pre qualified on the basis of criteria mentioned below:

- 5.2.1 The Bidder must have "Net Worth" of Rs. 25 crore in last financial year 2012-13.
- 5.2.2 The Bidder should submit duly attested copy of audited balance sheet and a certificate from chartered accountant in support of net worth along with offer.
- 5.2.3 Bidder should have executed a solar PV power plant in India on turnkey basis of minimum 2 MW peak.
- 5.2.4 The tenderer shall be pre-qualified on the basis of documents furnished along with Techno commercial bid in support of above criteria. The decision of the Owner will be final and binding in this regard. Only such pre-qualified Tenderers will be informed about the opening of the price bid.
- 5.2.5 Net worth has to be in the name of bidder only & net worth of individual / partners / Directors shall not be considered. It is to be noted that, in case of Owner, turnover of the Owner shall only be considered.
- 5.2.6 Tenderer as a consortium is allowed to participate in this tender. However net worth of lead bidder only shall be considered for pre qualifying and he shall be jointly and severally responsible and liable to owner for performance of the contract.
- 5.2.7 The Tenderer who have earlier been suspended or banned or whose contracts have been terminated by the RSMML shall not be eligible to participate in this tender during the currency of the suspension or banned period.

Responsibility of the contractor

- 5.3 All expenses towards mobilization at site and demobilization including bringing in equipment, work force, materials, dismantling the equipment, clearing the site after completion of work and liaisoning for interconnection of 5 MW Solar Power Plant with the State Grid with concerned departments etc. shall be deemed to be included in the prices quoted and no separate payments on account of such expenses shall be entertained.
- 5.4 Contractor may have to work in energized or partly energized conditions. In such cases, it shall be responsibility of the contractor to arrange for necessary permits or shut downs and provide skilled and responsible persons for the execution of works. Contractor shall organize his works during the shut down periods properly and complete the programmed works within the time given. Contractor shall not be paid any extra payments for working under the above said circumstances.
- 5.5 It shall be entirely the contractor's responsibility to provide, operate and maintain all necessary construction equipments, scaffoldings and safety gadgets, cranes and other lifting tackles, tools and appliances to perform the work in a workman like and efficient manner and complete all the jobs as per time schedules. However, if any equipment/ facility are provided by the owner, the same shall be on chargeable basis.
- 5.6 The power output from Solar Plant at different solar insolation should match with the power quality of the State grid for successful export of generated power. It shall be the responsibility of the bidder to access the corresponding solar insolation values and related factors of solar plant including all associated equipments and metering requirements of DISCOM/RVPNL along with expected grid availability. The bidder should access all related factors about the selected site for the project and then quote the NMGG of each year for 20 years for the proposed project
- 5.7 The time specified for delivery and completion of work in the contract tender shall be deemed to be the essence of the contract and the successful tenderer (s) shall arrange supplies & commissioning of the work within the period on receipt of order from RSMML.
- 5.8 The successful bidder would have to operate & maintain the Solar Power Project for 20 years from the date of commencement of Commercial operation.

Compensation for delay in completion of work

- 5.9 Time is the essence of contract. The contractor is required to complete and commission the Solar Power Plant within the scheduled period. In case the completion is delayed, the contractor shall be liable to pay compensation for delayed completion.
- 5.9.1 The compensation shall be levied @ 1% per week or part thereof on incomplete capacity in MWp or fraction thereof limited to 15% value of the incomplete capacity for which statutory certificate of commissioning is not produced and commercial production has not started, for computing the cost of incomplete capacity, value of proportionate cost per MWp given in the price bid shall be considered.
- 5.9.2 Maximum compensation shall not exceed 10% of contract value for delay in completion.

- 5.9.3 The compensation so paid shall not relieve the contractor from his obligations to complete the work or from any other obligations and liabilities under the contract. This is without prejudice to any other rights or remedies of the owner under law or otherwise.
- 5.9.4 All sums payable by way of compensation and/or compensation under any of the conditions shall be considered as reasonable and genuine without there being any proof of actual loss or damage which shall have been caused /suffered/sustained and which will not prejudice the owner's other rights or remedies as well.

Net Minimum Guaranteed Generation:

- 5.10 The bidder shall be required to quote (NMGG) for each year for a period of 20 years. The Bidder shall give the Net Minimum Guaranteed Generation (NMGG) per annum after considering proposed configuration and all local site conditions, solar insolation, wind directions, Grid availability (refer clause 5.39 also) and grid related all other factors etc. for evaluation of their offer.
- 5.11 To assess/verify feasibility of quoted NMGG for each year by the bidder, computation documents needs to be provided along with considered factors based on which NMGG is computed. For the purpose of evaluation, NMGG of 18 Lac Kwh per MWp per year or as offered, whichever is lower, will only be considered.
- 5.12 The contractor shall adhere to the NMGG offered. However, the contractor will be allowed to relocate the solar modules and/or add more modules at their own cost ensuring uninterrupted NMGG. The entire cost including cost of land, modules, Balance of system, power evacuation system, dismantling and re-erection, etc, will be borne by the contractor only.
- 5.13 The NMGG has to be unconditional.
Bidders are expected to make their own study of solar profile of the area & make sound commercial judgement about power output i.e. Net Minimum guaranteed generation.

Compensation for shortfall in NMGG

- 5.14 In case of shortfall in quoted NMGG in a block period of two years, compensation will be recovered by the owner from the operator. The first block will commence from the date of commercial production.
- 5.15 Compensation at the tariff rate of Rs.12.00 for initial 3-years and Rs. 9.00 for balance 17-years shall be recovered for shortfall of the generation units guaranteed. The compensation shall be paid by the contractor or shall be recovered from O&M payment and /or BG provided by contractor.
- 5.16 In case, there is any excess generation over and above offered NMGG in a block, revenue received by RSMML for this excess generation over and above NMGG shall be shared between the contractor and RSMML in ratio of 25:75.

Site visit:

- 5.17 This tender document specifically covers requirements for Grid Connected 5 MWp Solar Power Plant along with their associated equipments. This generated power will be fed to the RVPN/Discom Grid on 33KV System which may carry load of villages, Irrigation pumps load, domestic load, industrial load

as well as canal irrigation pumps and other mixed load etc. The bidder is advised to visit the site before designing the plant.

5.18 PAYMENTS

1. 5% of the total contract value shall be paid as interest free advance on fulfillment of the following by the Contractor:
 - i) Submission of invoice for advance and
 - ii) Submission of an unconditional Bank Guarantee toward advance payment equivalent to 5% of the total Contract value valid for 6-months from date of issue .However BG shall be released after receipt of material at site on request of contractor.
 - iii) Submission of Bank Guarantee towards security deposit as detailed in tender document in clause 4.04.
2. 50% of the total contract value shall be paid as per agreed bill schedule and after receipt of material at site along with test and inspection certificates on pro rata basis.
3. 15% of the total contract value shall be paid on completion of erection, commissioning at site and inter-connection with state grid for which statutory certificate from RVPNL/Discom to be furnished.
4. 30% of the contract value shall be released on furnishing of B.G. of 20% amount having validity of 24-months plus grace period of 6-months, from date of issue of work completion certificate to be issued by Engineer in charge.

RATES TO BE INCLUSIVE

- 5.19 The rates quoted by the contractor shall remain firm and fixed and binding till the issue of completion certificate and shall not be subject to escalation. Rates shall be deemed to include and cover all costs, expenses taxes , duties, levies, royalties, foreign exchange variation, etc. and liabilities of every description and all risk of every kind to be taken in execution, completing and handing over the work to the company by the contractor. In case, bidder is getting benefit on account of any concessional taxes/duties/levies, it need to provide necessary details alongwith supporting documents with the techno-commercial offer. However, increase in rates on statutory taxes & duties or imposition of new taxes, etc., or vice versa shall be considered as per clause 4.30.
- 5.20 The company shall be deducting income tax, Works Contract and other applicable taxes, if any, as per the prevailing rates from the bills of the contractor. Owner shall not be responsible for any such liability of the contractor in respect of this contract and exclusion of any applicable taxes at prescribed rates due to ignorance or otherwise shall not form a reason for claiming anything extra at a later date.

WORK COMPLETION CERTIFICATE

- 5.21 On completion of work the contractor will apply to the Engineer in- charge for the issue of work completion certificate and the same will be issued within 45 days of the completion of work in all respects, after verifying from the completion documents and satisfying himself that the work has been completed in accordance with details set out in the contract documents. No completion certificate shall be given nor shall the work be deemed to have been executed

until the export of generated power commenced and all scaffolding, surplus materials and rubbish is cleaned off the site completely. Consequence to issuance of this certificate the ownership of Power plant stand transferred to the RSMML.

5.22 The following documents are to be submitted for issuance of work completion certificate:

- a) The technical documents according to which the work was carried out.
- b) Three sets of as built drawings showing therein the modification and corrections made during the course of execution.
- c) Certificates of tests performed for various equipments/works.
- d) Materials appropriation statement for the materials issued, if any, by the company and list of the surplus material returned to the owner's store duly supported by necessary documents.
- e) Statutory clearances / permissions.
- f) Payment of all statutory duties, taxes, labour wages & others.
- g) No dues and No claim Certificate.
- h) Indemnification Bond on non judicial stamp paper of appropriate value.
- i) The copy of certified initial meter reading of main meter and back up meter signed by RVPNL and/or DISCOM, etc.
- j) Commissioning Certificate issued by RVPNL / DISCOM

INSURANCE

5.23 Contractor shall at his own expense effect insurance to the supplies, transit, personnel and all other related legally required to the satisfaction of the company as follows including all third party risks (A copy of all such policies will be given to the company along with proof of premium paid, whenever asked). If insurance covers for supply items, RSMML shall be a co-beneficiary.

- i) Insurance to cover marine transit cum storage cum erection cum commissioning policy.
- ii) Insurance to cover third party liability
- iii) Workmen compensation and /or group personal accidents Insurance policy covering all its employees and works including of the sub contractor.
- iv) It would be the responsibility of the contractor to operate and maintain the Solar Power Plant and it's all the equipments in perfect condition at his own cost for the entire period of 20 years for which RSMML shall pay the agreed O&M charges only. The replacement / repair / modification of any / all equipments have to be carried out by the contractor at his own cost for the entire period of contract. RSMML shall not be responsible for any break down / failure of any equipment to any reason thereof. The bidder may take a suitable type of insurance at his cost to meet out the above purpose.
- v) Fire and allied perils including earthquake, flood, storm, cyclone, tempest and burglary, insurance policy shall be taken by Contractor after completion of Solar Plant and yearly premium shall be paid by Contractor.

5.24 Contractor shall also effect and maintain any and all other insurance, which he may be required under any law or regulation or practice from time to time.

5.25 The Contractor shall take all reasonable pre-cautions to prevent fire and theft of any nature in the general vicinity of his operations, and he shall be responsible for all damage from fire, theft etc.

5.26 In case of failure/damage of any equipment, contractor will repair/replace the same without waiting for insurance claim.

Tests / Inspection

- 5.27 All the tests in accordance with the standards shall be carried out at the manufacturers works on all the equipment and accessories so as to ensure efficient operation and satisfactory performance of all the component/parts. The Bidder shall furnish a complete list and details of all such tests to be conducted on different equipment. The contractor will furnish a schedule of testing so that owner may associate his representative to witness the tests. The contractor shall also furnish all test/inspection reports/certificates.
- 5.28 Any special test to be performed shall be mutually agreed upon between the Bidder and the Owner.
- 5.29 Equipments shall be further tested at site, as required, before commissioning.
- 5.30 The work is subject to inspection at all times and at all places by the Engineer Incharge. The contractor shall carry out all instructions given during inspection and shall ensure that the work is being carried out according to the relevant codes of practice during the performance of the work.
- 5.31 The decision of the Engineer-in-charge in regard to the quality of work and materials and performance to the specifications and drawings shall be final.
- 5.32 If any item is rejected during test/inspection, the same shall be replaced by contractor without any cost.

Guarantee/Warranties

- 5.33 The manufacturer's guarantee for all supplied items shall be made available to the Owner. If manufacturer's guarantees are not so available to the Owner, the contractor shall guarantee the items supplied. However, in case the manufacturer's guarantee period is in excess of the contractors guarantee period, such guarantees for such excess period shall be passed on by the contractor to the Owner.
- 5.34 The contractor shall guarantee the power plant for a period of (12) twelve months from the date of issue of completion certificate. Any damage or defect that may arise or lie undiscovered at the time of issue of completion certificate, connected in any way with the equipment or materials supplied by him or in the workmanship shall be rectified or replaced by the contractor at his own expenses as deemed necessary by the Engineer-in-charge or in default, the engineer-in-charge may cause the same to be made good by other workman and deduct expenses (of which the certificate of Engineer-in-charge shall be final) from any sums that may be then or at any time thereafter, become due to the contractor or from his security deposit
- 5.35 Any material and/or equipment and/or accessories which shall prove defective or which shall fail to meet the desired design guarantee or performance guarantee during the Guarantee period, the contractor shall replace at his own cost that material and/or equipment and/or accessories with another of make approved by Owner. Manufacturer's/contractor's guarantee for such replaced equipment shall also be made available to the owner and should be kept valid at least for one year from the date of last replacement.

- 5.36 Owner reserves their right to call for required guarantee directly by the manufacturer / contractor's consultant/ Associate/ sub-contractor through suitable agreement.

Statutory approval for works

- 5.37 All statutory approvals for the works (from RVPNL/Discoms/Electrical Inspector or any other approval) required as per applicable law, rules thereof shall be obtained by the Bidder. The approvals shall be taken well ahead, so that the actual commissioning of equipment is not delayed for want of inspection by the inspector and necessary co-ordination and liaison work in this respect shall be the responsibility of the bidder. No any fee/charges shall be payable extra.
- 5.38 The Inspection and acceptance of the work as above shall not absolve the contractor from any of his responsibility under this contract.
- 5.39 For all aspects relating to grid availability less than 95% (only for day hours 6 a.m. to 6 p.m. on yearly basis) credit in form of lull hours will be allowed in computation of the NMGG. The corresponding effect of non-availability or less availability of Grid shall be considered while working out the NMGG only on production of such document of non availability of grid from RVPNL/DISCOM by the contractor.
- 5.40 If any penalty/levy becomes payable to the State Electricity Authorities (like RVPN/Discoms etc.) on account of low power factor or reactive power drawl or any such requirement of RVPNL/Discom etc from the Solar Plant , the same has to be borne by the contractor only.
- 5.41 The contractor shall be responsible for interconnection of Solar Plant with the State grid; so as to export power from Solar Plant. The date of commissioning will not be considered prior to inter connection of Solar Power Plant with the State grid. Therefore, the contractor should make all efforts for installation of required metering equipment, etc, and carry out the inter connection timely during the final commissioning of the Solar Plant. However, RSMML shall pay or reimburse the fee paid to RVPNL / Discom for the inter connection and execution of PPA, etc.
- 5.42 On issuance of LOA/DLOA the Contractor shall submit the activity Chart along with execution methodology and details of work force planned to be deployed for the proposed project of RSMML.

SECTION VI

SPECIAL CONDITIONS FOR OPERATION & MAINTENANCE OF SOLAR POWER PLANT

6.1 Term

The Contractor after successful commissioning of **Solar Power Plant (SPP)** shall become the Operator and shall be responsible for operation and maintenance of the solar power plant for a period of twenty (20) years from the date of commercial operation and shall be responsible to give guaranteed NMGG every year for 20-year period.

6.2 Battery Limit

The battery limit for operator during the period of O&M contract shall cover complete solar power plant and power evacuation system upto inter connection point on 33 KV system after main and check/back up meters (sealed by RVPNLK/Discom).

6.3 The operator shall be responsible for achieving Net Minimum guaranteed generation for 20-year period. For any shortfall in the NMGG, the compensation shall be recovered from contractor as per clause at 5.14 & 5.15.

Scope of Work

6.4 Operator shall provide all day to day operation and maintenance for the Solar Power Plant as set forth herein. Operator shall perform the Work and supply all required spare parts in a prudent and efficient manner and in accordance with

- (i) manufacturers and systems designers' specifications, the Annual Operating Plan for the Plant and all operation and maintenance manuals,
- (ii) All Indian applicable laws including electricity rules, environmental protection, pollution, sanitary, employment and safety laws, ("Government Rules").
- (iii) Prudent Utility Practices.

6.5 The operator shall maintain all requisite spare parts, undertake/repairs / replacement of any or all defective equipment/s at his cost as required from time to time. He will carry out schedule and preventive maintenance, major overhauling of the plant, maintaining log sheets for operational detail, deployment of staff for continuous operations and qualified engineer for supervision of O&M work. RSMML shall not pay any amount except the agreed O&M charges.

6.6 Operator shall use all reasonable and practical efforts

- i. to maximize plant capacity utilization,
- ii. to Reduce plant downtime,
- iii. to optimize the useful life of the equipment of the power plant.

6.7 The Operator shall perform the following obligations prior to takeover of the O&M activity:

- i. Prepare maintenance plan in consultation with the Owner
- ii. Provide the details of services and personnel to be engaged in the maintenance and operation.
- iii. Prepare in consultation with the Owner, the initial Annual Operating Plan
- iv. Develop and implement plans and procedures including those for fire

fighting, maintenance planning, procuring and inventory control of stores and spares, plan to meet emergencies, plant safety and security; and such other facilities and systems as may be necessary to commence Operator's ongoing responsibilities.

6.8 After taking over the activity of O&M for the power plant, the Operator shall be responsible for the operation and maintenance of the plant and shall perform all necessary services including applicable services listed below:

- i. Provide all operations and maintenance services necessary and advisable to efficiently operate and maintain the plant, including all associated mechanical and electrical equipments keeping in view the objectives set-forth herein above.
- ii. Maintain up-to-date operating logs, records and Monthly reports regarding the operation and maintenance of the Plant which shall include detail of power output, other operating data, repairs performed and status of equipment. All such records to be maintained for a minimum of forty two (42) months after the creation of such record or data and for any additional length of time required by regulatory agencies with jurisdiction over the Parties. Upon expiry of term, the operator shall hand over such records to the owner, however, Owner shall have access to all such records at any time.
- iii. Regularly update and implement an equipment repair or replacement/overhaul and preventive maintenance program that meet the specifications of the equipment manufacturers and the recommendations of the manufacturers.
- iv. Perform the services required to provide all spare parts, or equipment/s as required. Tools and equipment, required to operate and maintain the Plant in accordance with the recommendations of individual original equipment manufacturer.
- v. Operate and maintain Plant fire protection and safety equipment.
- vi. Maintain accounting records regarding the facility in accordance with the generally acceptable accounting principles under the Laws of India.
- vii. The contractor shall guarantee the installation for a period of 20 Years from the date of issue of commissioning certificate. Any damage or defect, that may arise after or remain undiscovered at the time of issue of commissioning certificate, same shall be rectified or replaced by the contractor at his own expenses as deemed necessary by the engineer-in-charge. This guarantee shall be applicable for the quality of works executed as well as for the equipment/fittings supplied by the contractor.
- viii. **Daily Generation report:** During the O&M period, the operator shall keep the measured daily data at 15 minutes or lesser interval and energy exported to the grid and provides the same to RSMML in electronic form. These data shall be transferred to RSMML Corporate office, Udaipur in a suitable form on weekly basis. The right of use of the data shall remain with RSMML

Personnel

- 6.9 The Operator shall employ only such personnel who are adequately qualified and experienced for operating and maintaining the Solar Power Plant..

Net Minimum Guaranteed Generation

- 6.10 The operator shall be responsible for achieving NMGG. For any shortfall in the net minimum guaranteed generation corresponding to the offer, the compensation shall be recovered from the operator on block yearly basis as mentioned elsewhere in the tender. The contractor has to maintain the Solar Plant equipment/s including its repair, replacement, overhauling, etc, so as to give the offered NMGG per year, for which RSMML shall pay the agreed O&M charges only and no other charge / cost is payable by RSMML.

Insurance

- 6.11 Operator shall maintain in force throughout the period of contract all the legally required insurance coverage.

Operator shall also provide insurance of solar power plant, which shall cover, fire, burglary, earthquake, and flood damage etc or as required.

The company shall be the beneficiary & the operator will be Co beneficiary in such policies. In case of failure/damage of any equipment, contractor will repair/replace the same without waiting for insurance claim at his own cost.

A copy of the insurance policy is to be provided to the company, whenever asked.

Measurement of Energy and Metering

Metering Systems:

- 6.12 The operator shall maintain the Metering System (which shall include energy meter, current and potential transformers etc) as per metering code, CEA guidelines and as per requirement of DISCOM/RVPNL. The Metering System will be designed so as to measure outgoing and incoming energy and power delivered by the Operator for the owner at the delivery point, i.e. point of inter connection and also for import of energy for any purpose. The accuracy class of the energy meters and current and potential transformers will be selected and agreed upon by the owner as per requirement of RVPNL/Discom, so that all levels of energy produced or taken by the solar power plant will be measured accurately, and in no case shall this equipment have an accuracy of less than 0.2S. Meter reading shall be done jointly on monthly basis or at mutually agreed time interval with DISCOM.
- 6.13 The owner shall have the right to carry out surprise inspections of the Metering Systems from time to time to check their accuracy.
- 6.14 All testing and metering equipment shall conform to the relevant IS/IEC/RVPNL/DISCOM standards and applicable grid codes.
- 6.15 If either the Operator or the Owner find any inaccuracy in the Metering System, the operator or the Owner, as the case may be, shall notify the other party in writing within 24 hours for a joint inspection and testing from RVPNL/JVPNL/ or other agreed agency.
- 6.16 The Metering System shall be sealed in the presence of both parties.
- 6.17 When the Metering System and/or any component thereof is found to be outside the acceptable limits of accuracy or otherwise not functioning properly, it shall be repaired, re-calibrated or replaced by the Operator at his cost as soon as possible or as per requirement of RVPNL/Discom.
Meters shall be duly tested/ calibrated yearly by the Operator at his cost from DISCOM/accredited testing agency.

- 6.18 Any meter seal shall be broken by the contractor's representative only in the presence of the Owner's representative whenever the Metering System is to be inspected, tested, adjusted, repaired or replaced with due permission of RVPNL/Discom.

PAYMENTS

Rate

- 6.19 The operator shall get the remuneration for O&M of installed Solar Power Plant. The rate shall be firm, fixed (as quoted for each year) and binding over a period of 20 years. The O&M prices are inclusive of taxes and duties as applicable now. But any increase in taxes, levies / fees or newly imposed taxes, etc. as are directly applicable on the project, would be charged extra against submission of documentary proof by operator. Similarly, due credit would be given to RSMML in case of withdrawal or reduction in applicable taxes / fees / duties.
- 6.20 The payment will be made after all statutory deductions as applicable to such type of contracts. The rate quoted shall be deemed to be inclusive of all salaries and other cost, expenses of employees, cost of spares, cost of repair / replacement / modification of any equipment or system for the entire period of 20 years so as to give the quoted NMGG up to 20 years. The rates are also inclusive of tools & tackles, etc, and liabilities of every description and all risk of every kind to be taken in operation, maintenance and handing over the plant to the owner by the operator. Owner shall not be responsible for any such liability on the operator in respect of this contract and exclusion of applicable taxes on the date of issue of LOA at prescribed rates due to ignorance or otherwise shall not form a reason for claiming anything extra at a later date. If any amount is payable to/ levied by RVPNL / DISCOM, etc, on account of low power factor or any other account of Solar Plant, the same shall be deducted from the operators remuneration or from other due payments.
- 6.21 All fee / charges payable to any statutory/ inspecting authority on account of operation & maintenance of Solar Power Plant shall be borne by the contractor during the entire period of O&M contract.
- 6.22 The payment will be made on quarterly basis. The Owner will be billed by the Operator promptly following the end of each quarter for power exported during such quarter, and payment will be made on or before the 30th day from the date of the receipt of the invoice along with certified joint meter reading duly signed by RVPN/Discom and Operator.

Operators Office at the Site

- 6.23 The Operator shall maintain an office at the site for the accommodation of the staff and such office shall be open at all reasonable hours to receive instructions, notices or other communications. The Operator shall be responsible for any misconduct/indiscipline by his employees or sub operator/agent employees. The Operator shall abide by the instructions of the Owner Representative, if given in this regard.

Power of Entry

- 6.24 In case the Operator does not execute the work in the manner described in the contract documents or if he shall at any time in the opinion of the Engineer Incharge:
- i) Fail to operate & maintain the plant in conformity with contract document or

- ii) Substantially suspend work or the works for a continuous period of 15 days without permission from the engineer incharge , or
 - iii) Fail to carry on and execute the works to the satisfaction of the engineer incharge, or
 - iv) Commit or suffer or permit any other breach of any of the provisions of the contract on his part to be performed, or
 - v) If the operator abandons the works, or
 - vi) If the Operator during the continuance of the contract becomes bankrupt.
- 6.25 The Owner shall have the power to enter upon the works and take possession of the plant, materials, spares, equipment, tools and stocks thereon to operate the plant by his staff, other Operators or workmen.

Handing over the Plant after expiry of Term

- 6.26 On completion of O&M term, the operator may apply to Engineer Incharge for issue of handing over certificate and the same will be issued within one month of handing over in all respects after verifying from the document and tests and satisfying that O&M has been completed in accordance with details set in control documents and prudent utility practices. While handing over the plant operator shall hand over all technical documents, literature, and instruction manuals, lists of spare part & tools & tackles. Operator will also hand over all the relevant record/documents
- 6.27 All the aforesaid safeguards /rights provided for the company shall not prejudice its other rights/remedies elsewhere provided herein and/or under law.

Final Payment

- 6.28 Whenever, in the opinion of the Engineer-in-charge the Operator has completely performed the contract on his part, the Engineer in-charge will so certify in writing to the Operator.
- 6.29 The final payment to the Operator shall be made after accounting for all the previous payments/advances/adjustments of dues, provided always that Operator furnishes a "NO claim - No dues certificate" and indemnification bond. The release of final payments does not relieve the Operator from his any other obligations as provided for in the contract.
- 6.30 The company shall be deducting statutory taxes at source as per prevailing rates from bills of the Operators

Failure of The Operator To Comply with The Provisions Of The Contract

- 6.31 If the Operator refuses or fails to execute the work or any separable part thereof with such diligence or fails to perform any of his obligations under the contract or in any manner commits a breach of any of the provisions of the contract, it shall be open to the company, to adopt following course of action at it's option, by written notice to the Operator.
- i) To determine the contract in which event the contract shall stand terminated and shall cease to be in force and effect on and from the date the decision is announced by the company. The Operator shall stop forthwith any of the Operators work, then in progress and handover the work to the company. The company shall be entitled for recovery of cost /compensation to complete the unfinished obligations.

- ii) Without determining the contract, to takeover the work of the Operator or any part thereof and complete the same through a fresh contract or by other means at the risk and cost of the Operator.
- 6.32 In the event that the company proceeds in the manner prescribed in above clause then the whole or part of the security deposit furnished by the Operator is liable to be forfeited without prejudice to the other rights of the company. The company shall also have the right of taking possession and utilizing such materials, equipment and plant, belonging to the Operator, as may be at the site of the work in order to complete the unfinished work.
- 6.33 The amount that may have become due to the Operator on account of work already executed by him shall not be payable to him until after the expiry of six months reckoned from the date of the determination of contract or from the taking over of the work or part thereof by the company and until the recovery of cost/compensation, arising out of the above act of operator are fully met, as the case may be. Further during this period of six months the responsibility for faulty workmanship in respect of such completed work shall, under the contract, rest exclusively with the Operator.
- 6.34 Termination of the contract shall not prejudice or affect the rights of the company which may have accrued upto the date of such termination.

SECTION VII SCOPE OF WORK

The broad scopes of supply/works covered are mainly as follows:

- 7.1. Scope of Work includes all engineering, design, manufacture, supply of equipment and materials, testing at manufacturers works, inspection, packing and forwarding, transportation, unloading and storage at site, associated all works, services, permits, approvals, installation and incidentals, insurance at all stages, erection, testing and commissioning of 5 MWp Grid Interactive Solar PV Power Plant with associated equipment and materials complete in all respect on turnkey basis and COMPREHENSIVE, MAINTENANCE & OPERATION of 5 MWp Grid Interactive Solar PV for 20 years.
- 7.2. Design of 33 KV or suitable substation and its associated electrical & mechanical auxiliary systems and metering arrangements up to the point of interconnection with state grid as required for evacuation power from above Power Plant.
- 7.3. Design & selection of Solar Module, PCUs capacity, arrangement of solar array, junction box, solar plant layout drawing, optimum angle of array on mounting structures, tracking system, mounting structure design taking effect of wind & other forces pressure. Air Conditioning design & estimation of AC units, if required, preparation of single line diagrams and installation drawings, electrical lay outs, erection key diagrams, electrical and physical clearance diagrams, design calculations for Earthmat, Bus Bars, indoor and outdoor lighting/illumination etc. design memorandum and other relevant drawings and documents required for engineering of all facilities within the fencing to be provided under this contract, are covered under Bidders scope of work.

System Design / Philosophy

- 7.6.1 The SPV array generally consists of a number of SPV modules which directly produce DC electricity power on receipt of solar irradiation. This DC power is converted to AC power by a battery of PCUs. The AC output at 230V/415 V level is stepped up to 33 kV or suitable voltage by transformers. The modules in a PV array are usually first connected in series to obtain the desired voltage; the individual strings are then connected in parallel to allow the system to produce more current. They are then protected by encapsulation between glass and a tough metal, plastic or fibreglass back. This is held together by a stainless steel or aluminium frame to form a module. These modules usually are made up of SPV, crystalline cells, forming the basic building block of a solar array. Modules may be connected in series or parallel to increase the voltage and current, and thus achieve the required solar array characteristics that will match the load.

7.6.2 The main objective is the high availability and reliability of the plant. In order to achieve the main objective, the following principles would be adopted while designing system.

1. Technology: Solar PV cells of high efficiency.
2. Adequate capacity of SPV module, PCUs, Junction boxes etc to ensure generation of power as per design estimates. This to be done by applying liberal de-rating factors for the array and recognizing the efficiency parameters of PCUs, Transformers, etc.
3. Use of equipment and systems with proven design and performance that have a high availability track record under similar service conditions.
4. Selection of the equipment and adoption of a plant layout to ensure ease of maintenance.
5. Strict compliance with the approved and proven quality assurance norms and procedures during the different phases of the project.
6. Proper monitoring in the synchronizations which ensures the availability of power to the grid.
7. The plant instrumentation and control system should be designed to ensure high availability and reliability of the plant to assist the operators in the safe and efficient operation of the plant.
8. It should also provide for the analysis of the historical data and help in the plant maintenance people to take up the plant and equipment on preventive maintenance.
9. Generation voltage has to be stepped up to the grid voltage up to the point of interconnection.
10. The power plant has to operate in parallel with the grid system which is infinite electrical system. Any faults not taken care will result in damage of only SPV power plant without effecting RVPN infinite system. Thus the power plant has to protect its equipment against any of possible fault or other disturbances from the grid.
11. Very fast protection systems should be provided to ensure isolation of the solar power plant from the grid at the time of any fault or/and any additional suitable protection.

7.6.3 The basic and detailed engineering of the plant will aim at achieving high standards of operational performance especially considering following:

1. Optimum availability of modules during the day time.
2. Ensuring module layout to prevent shading.
3. Suitable tracking system as per site condition, weighing the cost benefits of performance vis-à-vis marginal additional investments and maintenance requirements.
4. High DC system voltage and low current handling requirements
5. Selection of PCUs with high track record and readily availability of requisite spares.
6. Careful logging of operation data / historical information from the Data Monitoring Systems, and periodically processing it to determine abnormal or slowly deteriorating conditions.
7. SPV power plant should be designed to operate satisfactorily in parallel with the grids within permissible limits of high voltage and frequency

fluctuation conditions, so as to export the maximum possible units to the grid. It is also extremely important to safeguard the system during major disturbances, like tripping / pulling out of big generating stations and sudden overloading during falling of portion of the grid loads on the power plant unit in island mode, under fault / feeder tripping conditions.

8. Based on the INSOLATION data, the solar PV system should be so designed that it shall take into account the mean energy output after allowing for various losses, temperature corrections, on an average day for each month of the year.

7.4. The equipment and materials for 5 MWp Grid Interactive Solar PV Power Plant with associated system shall include but not be limited to the Supply, Erection, and Testing & Commissioning of the following:

- 7.4.1 Solar PV modules, of suitable rating in each array, totalling 5 MWp including mounting frames, structures, array foundation and module inter connection and alignment.
- 7.4.2 Array Junction boxes, distribution boxes and Fuse boxes / circuit breakers.
- 7.4.3 Power Conditioning Units (PCU) with SCADA, common AC power evacuation panel with bus bars and circuit breakers,
- 7.4.4 Step up transformers to 33KV voltage with adequate protection and associated electrical/electronic equipments, wiring, cabling etc.
- 7.4.5 LT Power Interfacing Panel, Plant Monitoring Desk etc.
- 7.4.6 Metering and protection equipment.
- 7.4.7 LT Power and Control Cables including end terminations and other required accessories for both AC & DC power.
- 7.4.8 Earthing system for PV Array, DC power system, lightening protection system, PCU, transformers and HT switch gear.
- 7.4.9 LED/CFL technology based lighting system for illumination in buildings including (Control room).
- 7.4.10 Data acquisition system with remote monitoring facilities.
- 7.4.11 Mandatory spares and insurance spares for operation and maintenance for entire period of 20 years.
- 7.4.12 Lightning arrestors/Surge arresters wherever required.
- 7.4.13 PVC/GI pipes and accessories/trenches for cable laying.
- 7.4.14 Control room equipments related to solar power plant & associated substation etc.
- 7.4.15 LED/CFL Based Complete lighting and illumination of the solar array area, 33kV switchyard and Road Lighting as per requirement.
- 7.4.16 Air-conditioning System if required for outdoor / indoor control system for PCU /Kiosk (as per design of Bidder) in view of smooth operation at site condition.
- 7.4.17 Testing, maintenance and condition monitoring of equipments.
- 7.4.18 Any other equipment / material required to complete the specified scope.

CIVIL & STRUCTURAL WORK

7.5. The civil work to be provided by the contractor in accordance with the standard specification shall comprise of the entire requirement of the power plant and

substation and shall include but not be limited to the following major items:-

- 7.5.1 Contour survey, soil investigations & site development including site preparation, compacting and levelling (if required).
 - 7.5.2 Marking of land for Solar Power Plant site with stone / brick pillars of 1mx0.3mx0.3m size located at 10M distance between pillars.
 - 7.5.3 Construction of approach road and other feeder roads for safe and easy transportation of equipments and material.
 - 7.5.4 Sufficient water supply arrangement for self use. The pressurised water system for washing/ cleaning of panels etc.
 - 7.5.5 Construction of Office building of at least 500 sqft besides control room to receive data, processing and getting required reports on Energy Generation, Solar data etc.
 - 7.5.6 Construction power and water supply arrangement are to be made by the bidder at his cost.
 - 7.5.7 Design and construction of ground structures and mounting structures for solar modules, including foundation and perfect alignment for solar modules etc.
 - 7.5.8 Control room for housing the power and control panels of solar modules and for inverters etc. as required. The control room should be constructed with proper cooling arrangements for better and long terms efficiency of invertors and other associated equipment.
 - 7.5.9 Cable trenches along with covers & sump pits
 - 7.5.10 Cable trench and or GI pipes for crossing with roads, culverts, drains etc.
 - 7.5.11 Fencing around the transformers, solar panels and other equipments.
 - 7.5.12 Gravel filling & anti-weed treatment of complete 33 KV switchyard area.
 - 7.5.13 Drainage system in the solar power plant area and 33 KV Yard.
 - 7.5.14 Substation and solar plant boundary wall with fencing and gates.
 - 7.5.15 Civil foundation work of all equipments including that of solar PV array, mounting structures, columns, switchgears, and all allied equipments etc
 - 7.5.16 Civil Works for 33kv yard area including supply and laying of gravel and casting of all foundations.
 - 7.5.17 Entire GI cable tray inside control room building, solar plant area , 33kv yard area etc
 - 7.5.18 Fabrication, supply & erection of cable trays, support, brackets and accessories in case of site fabrication cable tray.
 - 7.5.19 Galvanized steel rigid/flexible conduits and accessories, ferrules, lugs, glands, terminal blocks, galvanized sheet steel junction boxes, cable fixing clamps, nuts and bolts etc. as required.
 - 7.5.20 All materials including cement, steel etc, .required for the civil and construction/ installation work shall be supplied by the contractor.
- 7.6. Equipments and materials for 33kV Sub -Station for evacuation of 5 MWp Grid Interactive Solar PV Power Plant with associated system. The bidder is however required to give details of substation along with makes and specs of all major items like transformers ,V.C.B.'s, G.O.Sets ,D.O.Sets, CT.PT, Meters Substation structures etc with SLD in his techno-commercial bid.
- 7.7. Grid interfacing, including transformer, panels, kiosks, protection & metering

equipments.

- 7.8. Internal wirings/cablings/ lines between solar modules, JB's, Inverters, Breakers transformers etc, 33 KV Circuit Breaker and connected work at the place of interfacing for inter connection with evacuation system/sub transmission lines and other structures, CT, PT, Breakers, Isolator & all metering other equipments as required.

Interconnection system with metering arrangement.

- 7.9. The main and backup meters with associated equipments like CT, PT, Isolator, Breaker etc. Main metering shall be accommodated in outdoor near/at Solar plant. This should be as per DISCOM /RVPNL requirement and will have main and backup arrangement and these shall be agreed upon with the DISCOM /RVPNL.
- 7.10. Necessary devices such as thyristors, surge suppressors' etc will be installed in the generating equipments/Solar plant by the contractor, if required. Capacitors of sufficient rating will also be provided (if required) in the equipment to ensure that the power factor is always maintained above 0.90 or as per the requirement of RVPNL / Discoms and to keep harmonics and impulses & surges within prescribed limits of RVPNL/Discom etc.
- 7.11. The contractor shall do the required liaison work with the RVPNL / Discoms so as to have all the metering equipment/s (duly tested by RVPNL / Discoms) ready for connection before the final completion of the Solar Plant. This also includes obtaining of all required permissions and approvals to commission and operate the grid connected Solar plant
- 7.12. Maintenance of Electrical system including overhead line in the Solar Plant area up to point of inter connection with state grid.. Necessary co-ordination shall be made by the contractor with RVPNL/Discom.
- 7.13. Installation of Central Monitoring System/Scada etc. at the Solar Power Plant site along with all required data loggers, sensors, etc, to collect required solar data at 15 minutes interval for adjudging the performance of solar power plant. It shall be installed and shall become operational before the power plant starts electricity generation so that performance of the solar power plant could be judged from day one. Relevant reports reg.solar insolation & power generation, units fed into the grid etc are to be provided by the bidder on daily basis with computation of power generation based on power output of solar module with available solar insolation. This shall be compared with achieved generation. It would be the responsibility of the bidder to maintain the monitoring system along with its associated equipments in proper order and duly calibrated to compare the power output based generation for the entire period of O&M. During the O&M period, the Contractor shall keep the

measured daily data at 15 minutes interval along with energy export to the grid during 24 hours and provide the same to RSMML in electronic form. These data shall be transferred to RSMML C.O Udaipur in a suitable form on regular basis. The right of use of the data shall remain with RSMML

- 7.14. The equipments to be designed, engineered, manufactured, tested, supplied shall be in accordance with the relevant standard IEC specifications and shall include but not limited to scope included to the above major items. All electrical installations in power plant substation, interconnection with sub-transmission line of RVPN/Discom shall be in line with prudent practices of RVPN/Discom and conforming to Grid code besides meeting I.E.C. Specs.
- 7.15. Any other items not specifically mentioned in the specification but which are required for erection, testing and commissioning and satisfactory operation of the solar power plant are deemed to be included in the scope of the specification unless specifically excluded.
- 7.16. Materials and accessories, which are necessary or usual for satisfactory and trouble-free operation and maintenance of the above equipments, are covered in scope of bidder/operator.
- 7.17. Before proceeding with the construction work as per scope and relevant IEC specifications, the Contractor shall fully familiarize himself with the site conditions, general arrangements and scheme etc. Though the owner shall endeavour to provide the information, it shall not be binding for the owner to provide the same. The bidders are advised to visit the site (s) and acquaint themselves with the topography, infrastructure and design philosophy.
- 7.18. The complete design (unless specified otherwise in specification elsewhere) and detailed engineering shall be done by the contractor..
- 7.19. The Contractor shall also be responsible for the overall co-ordination with internal/ external agencies, project management, training of owner manpower, loading, unloading, handling, security ,moving it to final destination for successful erection, testing and commissioning of the plant.
- 7.20. For the 33kVvoltage level, main – auxiliary bus switching scheme arrangement shall be applicable. The electrical layout arrangements are to be furnished with the bid documents by the bidder himself.

METEOROLOGICAL DATA

- 7.21. The meteorological data of the area and site is to be obtained by the bidder himself from various sources as deemed proper. However for design purposes, maximum ambient temperature should be considered as 55°C.

CLEARANCE

- 7.22. The bidder shall maintain the overall dimensions of the bay length, bay width with respect to phase to earth clearance, phase to phase clearance and sectional clearances, clearances between buses, bus heights as per operational requirement and as per statutory requirement.

SAFETY REQUIREMENT

- 7.23. The bidder shall be responsible for safety of human and equipment during the working. It will be the responsibility of the Contractor/operator to co-ordinate and arrange for obtaining clearance if required from any statutory bodies before commissioning. Any additional items, modification if required for any clearance shall be provided by the Contractor/operator at no extra cost to the owner.

SPECIAL TOOLS AND TACKLES

- 7.24. The bidder may include in his proposal the deployment of all such special tools and tackles required for erection, testing, commissioning and maintenance of the equipment.

TRAINING REQUIREMENTS

- 7.25. The technology of the 5 MWp Solar Power Plant as proposed to be supplied and commissioned in the contract is new to the owner. The contractor/operator shall provide elaborate training to the employees of RSMML.

SECTION-VIII

Technical Specification for SPV Power Plant

8.1 Solar Power Plant consists of mainly following:

1.	Solar PV modules
2.	Module mounting structures
3.	Sub- Junction Box
4.	Junction Boxes
5.	Solar PV Array
6.	Power Conducting Unit
7.	LT Power Interfacing Panel
8.	DC DB Board
9.	Plant Monitoring Desk
10.	Cable and installation accessories
11.	Earthing & Protection

These technical features are detailed in following paras.

8.2 SPV Modules:

- 8.2.1 SPV modules should be designed and engineered to provide maximum power output for 20-years. Modules should be optimised for all sunlight conditions: sunrise, sunset and cloudy weather. Modules should be designed to withstand heavy loads of wind.
- 8.2.2 Stabilized output of the Solar Power Plant should not be less than 5 MWp, under Standard Test Condition after one year of operation.
- 8.2.3 Peak power point voltage and the peak power point current of any supplied module and/or any module string (series connected module) shall not be more than 3% from the respective arithmetic means for all modules and/or for all module strings, as the case may be.
- 8.2.4 Preferably, each module shall have low iron tempered glass front for strength & superior light transmission. It shall also have tough multi-layered polymer back sheet for environmental protection against moisture & provide high voltage electrical insulation.
- 8.2.5 The module frame shall be made of aluminum or corrosion resistant material, which shall be electrically compatible with the structural material used for mounting the modules.
- 8.2.6 Solar modules offered must conform to the latest edition of IEC 61215 and IEC 61730 part 1 and part-2.
- 8.2.7 SPV module shall contain mono/poly crystalline high power silicon solar cells. The solar cell shall have surface anti-reflective coating to help to absorb more light in all weather conditions.
- 8.2.8 Solar PV module array shall consist of high efficiency Solar Module. Power output Guarantee offered for the SPV Module shall not be less than 20 years.

- 8.2.9 Crystalline high power cells shall be used in the Solar Photovoltaic module. Solar module shall be laminated using lamination technology using established polymer (EVA) and Tedlar/Polyester laminate.
- 8.2.10 The solar modules shall have suitable encapsulation and sealing arrangements to protect the silicon cells from the environment. The arrangement and the material of encapsulation shall be compatible with the thermal expansion properties of the Silicon cells and the module framing arrangement/material. The encapsulation arrangement shall ensure complete moisture proofing during life of the solar modules.
- 8.2.11 Photo conversion efficiency of SPV Module should be high.
- 8.2.12 Module rating is considered under standard test conditions, however Solar Modules shall be designed to operate and perform under site condition including high temperature, dust.
- 8.2.13 Solar PV Module design should generally conform to following Mechanical requirement:
- Toughened, low iron content.
 - High transmissivity front glass.
 - Anodized Aluminium frame
 - Ethyl Vinyl Acetate (EVA) encapsulant
 - Silicon edge sealant around laminate
 - Tedlar/Polyester trilaminate back surface
 - Weatherproof DC rated MC connector and a lead cable coming out as a part of the module, making connections easier and secure, not allowing for any loose connections.
 - Resistant of water, abrasion, hail impact, humidity & other environment factor for the worst situation at site.
- 8.2.14 The offered module shall have a Power warranty of 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% after ten years period.
- 8.2.15 The fill factor of module shall not be less than 0.70 (typical).
- Note : I- V curve of each PV module with Sl. Nos. should be submitted along with Modules meeting the required specifications.
- 8.2.16 Offered Solar PV Modules shall conform to IEC specifications and certified by ETDC/CPRI/ERTC laboratories. Documentary evidence towards certification shall be submitted with the bid. Parameters as required in sheet no.2 shall be provided in the bid document.

8.2.17 IDENTIFICATION AND TRACEABILITY

Each PV module must use a RF identification tag (RFID), mandatorily placed inside the module laminate, which must contain the following information:

1. Name of the manufacturer of PV Module
2. Name of the Manufacturer of Solar cells

3. Month and year of the manufacture (separately for solar cells and module)
4. Country of origin (separately for solar cells and module)
5. I-V curve for the module
6. Peak Wattage, I_m , V_m and FF for the module
7. Unique Serial No and Model No of the module
8. Date and year of obtaining IEC PV module qualification certificate
9. Name of the test lab issuing IEC certificate
10. Other relevant information on traceability of solar cells and module as per ISO 9000 series.

Bidder shall provide the data module sheets as per sheets provided in the end of this section.

8.3 PV Array Configuration:

The Solar array shall be configured in multiple numbers of sub-arrays, providing optimum DC power to auditable number of sub arrays. The bidder shall submit their own design indicating configuration of PCU and respective sub arrays and bill of material.

8.4 Module Mounting Structure:

- 8.4.1 The structure design shall be appropriate and innovative.
- 8.4.2 The structure shall be designed to allow easy replacement of any module and shall be in line with site requirement.
- 8.4.3 The support structure design & foundation shall be designed to withstand wind speed applicable for the site using relevant Indian wind load codes.
- 8.4.4 The structure shall be designed for simple mechanical and electrical installation. It shall support SPV modules at a given orientation, absorb and transfer the mechanical loads to the ground properly.
- 8.4.5 The array structure shall be made of hot dipped galvanized MS angles of suitable size.
- 8.4.6 The array structure shall be so designed that it will occupy minimum space without sacrificing the output from SPV panels at the same time.
- 8.4.7 Nut & bolts, supporting structures including Module Mounting Structures shall have to be adequately protected from atmosphere and weather prevailing in the area.
- 8.4.8 All fasteners shall be of stainless steel of suitable grade.
- 8.4.9 The array structure shall be grounded properly using maintenance free earthing kit.
- 8.4.10 The bidder/manufacture shall specify installation details of the PV modules and the support structures with appropriate diagram and drawings.

8.5 Junction Box:

- 8.5.1 The junction box shall be dust, vermin, and waterproof and made of FRP/ABS Plastic.
- 8.5.2 The terminal will be connected to copper bus-bar arrangement of proper size to be provided. The junction boxes shall have suitable cable entry points fitted with cable glands of appropriate sizes for both incoming and outgoing cables.
- 8.5.3 Suitable markings shall be provided on the bus-bars for easy identification and cable ferrules will be fitted at the cable termination points for identification. The junction box shall be Protection IP 65.
- 8.5.4 Each Array junction Box will have suitable Reverse Blocking Diodes with suitable arrangement for its connecting. The Array junction Box will also have suitable surge protection. The junction Boxes shall have suitable arrangement for the followings (typical):-
 - i) Combine groups of modules into independent charging sub-arrays that will be wired into the controller.
 - ii) Provide arrangement for disconnection for each of the groups.
 - iii) Provide a test point for each sub-group for quick fault location.
 - iv) To provide group array isolation.
 - v) The current carrying rating of the junction Boxes shall be suitable with adequate safety factor to inter connect the Solar PV array.

8.6 Power Conditioning Unit {PCU}

- 8.6.1 Power Conditioning Unit {PUC} is critical equipment in Grid Connect SPV Power plant. This equipment converts DC power generated by SPV array, into 3 phase voltage AC to be connected to Grid. It also provides necessary protections for Grid Synchronization and Data Logging/Monitoring.
- 8.6.2 MPPT controller, inverter and associated control and protection devices etc. all shall be integrated into PCU.
- 8.6.3 The DC energy produced has to be utilized to maximum and supplied to the DC bus for inverting to AC voltage to extract maximum energy from solar array and to synchronize with local grid.
- 8.6.4 The PCU shall be of very high quality having efficiency not less than 96% and shall be capable of running in isolated mode.
- 8.6.5 The PCU shall have suitable protection features such as, over current, short circuit, over temperature to name a few.
- 8.6.6 The PCU shall be designed for continuous, reliable power supply as per specification. The capacity should 250 KVA or higher for each unit.
- 8.6.7 The PCU should be designed to be completely compatible with the SPV array voltage and grid supply voltage.
- 8.6.8 The dimension, weight foundation details etc. of the PCU shall be clearly indicated in the detailed technical specification.

- 8.6.9 It should have user friendly LEDs/LCD display for programming and view on line parameters such as:
- DC power input,
 - DC input voltage,
 - DC current,
 - AC power output,
 - AC voltage (all the 3 phases and line)
 - AC current (all the 3 phases and line)
 - Power factor
 - Inverter on
 - Grid on
 - Inverter under voltage/over voltage
 - Inverter over load
 - Inverter over temperature.
- 8.6.10 The PCU shall have arrangement for adjusting DC input current and should trip against sustainable fault downstream and shall not start till the fault is rectified.
- 8.6.11 The 3 phase Grid connect PCU shall be from internationally reputed firms, which will incorporate latest Technological advance to provide highly reliable and efficient energy conversion from DC to AC.
- 8.6.12 Both AC&DC lines shall have suitable arrangements (fuses and contactors) to allow safe start up and shut down of the system.
- 8.6.13 The PCU shall have provision for input & output isolation. Each solid-state electronic device shall have to be protected to ensure long life of the inverter as well as smooth functioning of the inverter.
- 8.6.14 The PCU shall be capable of complete automatic operation, including wake-up, synchronization & shut down.
- 8.6.15 PCU shall be capable to synchronize independently & automatically/ to be phase locked and RVPN/Discom grid power line frequency to attain synchronization and export power generated by the solar panel to RVPN grid.
- 8.6.16 Built in with data logging to remotely monitor plant performance through external PC shall be provided (PC shall be provided along with SPV Plant).
- 8.6.17 Inverter shall be tested for islanding protection performance.
- 8.6.18 Protections:
- Over voltage both at input & output.
 - Over current both at input & output.
 - Over/under grid frequency.
 - Over temperature.
 - Short circuit.
 - Protection against lightening.
 - Surge voltage induced at output due to external source.
- 8.6.19 Typical failure analysis report of PCUs and recommended list of critical components shall be provided by the bidder while submitting their offer.
- 8.6.20 The PCU shall be capable of operating in parallel with the grid utility service and shall be capable of interrupting line fault currents and line to ground fault currents.

8.6.21 The PCU shall be able to withstand an unbalanced load conforming to IEC standard and relevant Indian electricity condition. The PCU shall include appropriate self protective and self diagnostic features to protect itself and the PV array from damage in the event of PCU component failure or from parameters – beyond the PCU’s safe operating range due to internal or external causes. The self-protective features shall not allow signals from the PCU front panel to cause the PCU to be operated in a manner which may be unsafe or damaging. Faults due to malfunctioning within the PCU, including commutation feature, shall be cleared by the PCU protective devices and not by the existing site utility grid service circuit breaker.

8.6.22 The PCU shall go to shutdown/standby mode, with its contacts open, under the following conditions before attempting an automatic restart after an appropriate time delay.

8.6.23 When the power available from the PV array is insufficient to supply the losses of the PCU, the PCU shall go to standby/shutdown mode. The PCU control shall prevent excessive cycling of shut down during insufficient solar radiance.

8.6.24 Galvanic Isolation

Galvanic isolation is required to avoid any DC component being injected into the grid and the potential for AC components appearing at the array.

8.6.25 Disconnection and Islanding

Disconnection of the PV generator in the event of loss of the main grid supply is to be achieved by inflicts protection within the power conditioner. This may be achieved through rate of change of current, phase angle, unbalanced voltages, or reactive load variants.

8.6.26 Operation outside the limits of power quality as described in the technical data sheet should cause the power conditioner to disconnect the grid. Additional parameters requiring automatic disconnection are :

- Neutral voltage displacement
- Over current
- Earth fault
- And reverse power

In each of the above cases, tripping time should be very less.

8.7 Technical Document

Detailed technical description of the complete unit of offered PCU should be furnished with bid document Following Technical documents of PCU shall be supplied after placement of order.

- Detailed technical description of the complete unit
- Instructions for installation and operation
- Electrical diagrams of all internal cabling, necessary for installation, maintenance and fault finding.
- Description of electrical and mechanical characteristics of units.
- Maintenance and fault finding procedures.
- Safety precautions.
- Software for data monitoring with detailed description.
- Details of data acquisition
- Details of Telemetry linking

- Factory test reports in details on various parameters.
- Trouble Shooting procedures :
 - All maintenance requirements and their schedules, including detailed instructions on how to perform each task.
 - Detailed schematics of all power instrumentation and control equipment and subsystems along with their interconnection diagrams. Schematics shall indicate wiring diagrams, their numbers and quantities, type and ratings of all components and subsystems.
 - A detailed bill of materials which shall list components model numbers, quantities and manufacturer of each supplied item.
 - All documents and write ups shall be in English. They shall be clean and legible, and must be checked, signed, approved and dated by a competent representative of the contractor.

8.8 Data monitoring of power plant:

The performance and generation data is to be recorded using a data logger. The monitoring system shall comprise of the following main components:

- 8.8.1 PCU to log the inverter performance data and transmits the same to the Data logger.
- 8.8.2 Data logger shall than gathers information and monitors the performance of the inverter. It shall supports measurements from external sensors. The data can be acquired remotely via a modem.
- 8.8.3 PC Data logging software should enable automatic long-time storage of measured data form PV- Plant. It should allow visualization, monitoring, commissioning and service of the installation.
- 8.8.4 Communication interface the entire system can be operated and monitored via various interface viz.(RS232, RS485, MPI, Profit-bus, Telephone modem), in addition to the information indicated on the operator panel.

8.9 LT Power Interfacing Panel:

- 8.9.1 The panel shall have adequate inputs to take in from individual PCUs & adequate outputs to individual transformers with adequate number of spare terminals.
- 8.9.2 The panel shall be floor mounted type and shall have all the measuring instruments such as voltmeter, ammeter, frequency meter, Electronic Energy Meter {for measuring the deliverable units {KWh} for sale, selector switches and Mimic panel.
- 8.9.3 All the power cables shall be taken through top/ Bottom of the panel as per site requirement.
- 8.9.4 The panel shall fitted with suitable rating & size copper bus, MCCB, HRC fuses/circuit breaker/isolator, indicators for all incomer and outgoing terminals, LED voltmeter & Ammeter with suitable selector switches to monitor & measure the power to be evacuated.
- 8.9.5 Nut & bolts including metallic shall have to be adequately protected against atmosphere and weather prevailing in the area.

8.10 Plant Monitoring Desk:

- 8.10.1 Computer aided data acquisition unit shall have features for simultaneous monitoring and recording of various parameters of different sub-systems, power supply of the Power Plant at the DC side and AC side.
- 8.10.2 Computer Aided Data Acquisition Unit shall be a separate & Individual system comprising of different transducers to read the different variable parameters, A/D converter, Multiplexer, De-multiplexors, Interfacing Hardware & Software, Industrial Type PC, which will be robust & rugged suitable to operate in the Control Room environment.
- 8.10.3 Reliable sensors for solar Radiation, Temperature & other electrical Parameters are to be supplied with the data logger unit.
- 8.10.4 The PC Shall of Industrial type, rugged & robust in nature to operate in an hostile environment. The printer shall be of industrial type, rugged & robust in nature. The printer shall be equipped for printing, scanning, copying and fax.
- 8.10.5 The data acquisition system shall perform but not limited to the following operations:
- Measurement and continuous recording of (I) ambient Air Temperature near Array Field (II) Control Room Temperature (III) Module Back Surface Temperature (IV) Wind Speed at the level of Array Plane (V) Solar Irradiation Incidental to Array Plane (VI) Inverter Output (VII) System Frequency (VIII) DC Bus Output (IX) Energy delivered to the GRID in kWhrs.
 - All data shall be recorded chronologically date wise. The data file should be MS Excel compatible. The data logger shall have internal reliable battery backup to record all sorts of data simultaneously round the clock. All data shall be stored in a common work sheet chronologically. Representation of monitored data shall be in graphics mode and/or in tabulation form. All instantaneous data can be shown in the Computer Screen.
 - The Bill of Materials associated with the equipment must clearly indicate especially the detail about the PC, Modems, etc.
 - The data acquisition system should be housed in a desk made of sheet steel.

8.11 Lightning & Over Voltage Protection:

- 8.11.1 The SPV Power Plant should be provided with Lightning and over voltage protection connected to proper earth mats. The main aim of over voltage protection is to reduce the over voltage to a tolerable level before it reaches the PV or other sub-system components. The source of over voltage can be lightning or other atmospheric disturbance.
- 8.11.2 The lightning Conductors shall be made as per applicable Indian Standard/International Standard in order to protect the entire Array Yard/Shed from Lightning stroke. Necessary concrete foundation for holding the lightning

conductor, in position, to be made after giving due consideration to maximum wind speed and maintenance requirement at site in future.

8.11.3 The lightning conductor shall be earthed through flats and connected to the Earth mats as per applicable Indian Standards with earth pits. Each Lightning Conductor shall be fitted with individual earth pit as per required Standards including accessories, and providing masonry enclosure with cast iron cover plate having locking arrangement, watering pipe using charcoal or coke and salt as per required provisions of IS.

8.11.4 The bidder shall ensure adequate lightning protection to provide and acceptable degree of protection as per IS for the array yard/Shed. If necessary more numbers of Lightning conductors may be provided. Design calculations and detailed explanations shall be provided to RSMML.

8.11.5 Lightning- Conductor shall be as per requirements of IS Standards.

8.11.6 All building earth conductor shall be interconnected through the concept of "Earth Mats" for interconnection with separate earth pits.

8.11.7 For each earth pit, necessary Test Point shall have to be provided.

8.12 Earthing System:

8.12.1 The earthing for LT side (Solar Power Plant side) array and LT power system shall be as required as per provisions of Indian Standard/International Standard. Necessary provision shall be made for bolted isolating joints of each earthing pit for periodic checking of earth resistance.

8.12.2 Each array structure of the SPV Yard/shed shall be grounded properly. The array structure are to be connected to earth pits as per IS standards.

8.12.3 The complete earthing system shall be mechanically & electrically connected to provide independent return to earth. All three phase equipment shall have two distinct earth connections.

8.12.4 An Earth Bus shall be provided inside the control room.

8.12.5 For each earth pit, necessary Test Point shall have to be provided.

8.12.6 In compliance to Rule 33 and 61 of Indian Electricity Rules, 1956 (as amended up to date) all non-current carrying metal parts shall be earthed with two separate and distinct earth continuity conductors to an efficient earth electrode.

8.12.7 Earth resistance of the earth pits shall be tested in presence of the representative of RSMML.

8.13 Cables & Installation Accessories:

LT Cables:

1.1.KV Grade, Al. Conductor XLPE Armoured Cables shall be used for all LT Power Cables between Power & Motor Control Cubicles, MCC, Respective feeders, etc. These cables shall be laid on structural supports and using Galvanized Cable trays of adequate strength. The cable shall be terminated using Al. Lugs of adequate cross section area.

LT/Control Cables in solar panel up to inverters for DC system:

1.1. KV Grade, Cu. Conductor, XLPE Armoured Cables shall be used for all control /Power cables required for the Solar Power Plant for DC power up to invertors from Solar panels/ arrays . These cables shall be laid on structural supports and using Galvanized Cable trays of adequate strength. The cable shall be terminated using Cu. Lugs of adequate cross section area.

8.13.1 Instrumentation Cables:

- a. All cables shall be PVC insulated with appropriate grade conforming to IS.
- b. The wiring for module inters connection shall be with hard PVC conduit of reputed make. All Tees, Bends etc., shall be of reputed make.
- c. Only terminal cable joints shall be accepted. No cable joints to join two cable ends shall be accepted.
- d. Cables inside the control room shall be laid in suitable Cable Trays of approved type.
- e. All wires used on the LT side shall conform to IS and should be of appropriate voltage grade. Only copper conductor wires of reputed make shall be used.
- f. Cable terminations shall be made with suitable cable lugs & sockets etc., crimped properly and passed through brass compression type cable glands at the entry and exit point of the cubicles. The panels' bottoms should be properly sealed to prevent entry of snakes/lizard etc. inside the panel.
- g. All cable/wires shall be marked with good quality letter and number ferrules of proper sizes so that the cables can be identified easily.
- h. The terminal end of cables and wires are to be fitted with good quality letter and number ferrules of proper sizes so that the cables can be identified easily.

8.14 Painting & Finish:

All metal surfaces shall be thoroughly cleaned of rust, scale, oil, grease, dirt etc. Fabricated structures shall be pickled and then rinsed to remove any trace of acid. The under surface shall be made free from all imperfections before undertaking the finishing coat.

After Phosphate treatment, two (2) coats of yellow zinc chromate primer shall be applied followed by two (2) coats of epoxy based synthetic enameled paint. Shade shall be Siemens Grey RaI- 7032. Thickness of paint shall be not less than 75 micron.

All unpainted steel parts shall be cadmium plated or suitably treated to prevent rust formation. If these parts are moving elements then they shall be greased.

- 8.15** The specifications provided herein above are require to be met unless they are improved for better efficiency and optimum utilisation of Solar power plant by the bidder.

The balance of system items/ components of the SPV power plant/ systems must conform to the latest edition of relevant IEC standards.

The specifications of equipments mentioned above are for guidance only. It is the responsibility of contractor only to achieve quoted NMGG .Equipments with equivalent and better specifications to achieve quoted NMGG are also acceptable

SECTION-IX

9.1 Inspection & Testing

- i) RSMML shall have free access to Bidder's manufacturer's works to inspect, expedite and witness shop tests. Any materials or work found to be defective or which does not meet the requirements of the specification will be rejected and shall be replaced at Bidder's cost. Owner reserves the right to carry out stage wise inspection of fabrication and components. The Bidder shall furnish a detailed quality assurance plan for RSMML review.
- ii) The test and Inspection shall be done in accordance with the relevant standards and the Manufacturer's standards before the delivery to site as well as after the erection and commission at site. The shop test shall be carried out on sample modules to prove the performance parameters of the offered model.
- iii) After the award of work, the successful bidder shall furnish a complete list and details of all tests to be conducted on all major equipments
- iv) All major/critical items (Modules, Inverters, AC distribution board, DC distribution Board) shall be inspected and tested through third party inspection agency viz. TPL(Tata Projects Ltd), SGS, LLOYD, DNV, RITES, TUV Nord., Bureau Veritas (India)Pvt Ltd, QUEST (Quality evaluation & systems team Pvt. Ltd) during manufacture and in assembled condition prior to dispatch in accordance with the standard practice/ QAP of the manufacturer and applicable Standards at no cost to RSMML.
- v) In case of imported components the same should be inspected at the stock yard /warehouse of contractor by TPI for 100 % quantity as well as 10% by RSMML
- vi) The bidder shall also furnish a schedule of inspection / testing so that Owner may associate his representative to witness the tests of major equipment like modules, Invertors, Transformers, AC distribution board, DC distribution Board at manufacturer's works. The Contractor shall also furnish copies of all test/inspection reports for records and reference of Owner. However, this shall not absolve the responsibility of the Contractor in providing the performance guarantee/warranty.
- vii) Copies of test certificates for such inspections in triplicate shall be supplied before dispatch of the equipments. **No payment will be made against supplies as per bill schedule, unless it is supported with test certificate /inspection reports.**

9.2 Load Trials & Reliability test at Site for Grid Connected Solar Power Plant:

- 9.2.1 All equipment shall be further tested at site, wherever required, before commissioning.
- 9.2.2 After successful installation at site all the applicable site tests will be carried out in presence of **RSMML representative and third party inspectors (at no cost to RSMML)** to conform/ verify that the installation of plant has been carried out to comply with a range of international standards and relevant local guidelines. Third party inspection includes:

- (1) Documentation inspection.
- (2) Visual inspection.
- (3) Relevant field tests like:
 - Open circuit voltage.
 - Short circuit current.
 - Validation of irradiation monitoring equipment
 - DC current test
 - Availability test
 - Performance ratio test

It will be Contractors responsibility for arranging all the consumables, instrumentation, material and human resources as required for complete commissioning, start-up tests and performance ratio comparisons.

**Mathematical Model for EVALUATION FOR EPC CUM O&M BIDS OF 5 MW Solar Power Project
(Only for illustration Purpose)**

	Name of Bidder						
	Capacity Quoted		MW	5			
	Type of Module						
	Price Quoted for 1 MW		(Rs. In lac)	2,000			
	Price Quoted for 5 MW *		(Rs. In lac)	10,000			
	O&M Chagres per MW *		(Rs. In lac)	9			
	Escalation in O&M/annum		%	5.72%			
	Discount Rate **		%	11.00%			
Year	Net Minimum Guranteed Generation As Quoated By The Bidder For 20 Years (Lac Kwhr) *	Tariff Assumed For The Purpose Of Evaluation Of Bid (Rs./Kwh)***	Annual Revenue (Rs In Lac) (2) X (3)	Annual Discounting Factor	Discounted Value Of Revenues (Rs. In Lac) (4) X (5)	O&M Cost Including Insurance Chagres (Rs. In Lac)	Discounted O&M Cost Including Insurance Charges (7) X (5) (Rs. In Lac)
1	78.84	12	946.08	0.901	852.418	45.000	40.55
2	78.05	12	936.6	0.812	760.519	47.574	38.63
3	77.27	12	927.24	0.731	677.812	50.295	36.77
4	76.5	9	688.5	0.659	453.722	53.172	35.04
5	75.73	9	681.57	0.593	404.171	56.214	33.33
6	74.98	9	674.82	0.535	361.029	59.429	31.79
7	74.23	9	668.07	0.482	322.010	62.828	30.28
8	73.48	9	661.32	0.434	287.013	66.422	28.83
9	72.75	9	654.75	0.391	256.007	70.221	27.46
10	72.02	9	648.18	0.352	228.159	74.238	26.13
11	71.3	9	641.7	0.317	203.419	78.485	24.88
12	70.59	9	635.31	0.286	181.699	82.974	23.73
13	69.88	9	628.92	0.258	162.261	87.720	22.63
14	69.18	9	622.62	0.232	144.448	92.738	21.52
15	68.49	9	616.41	0.209	128.830	98.042	20.49
16	67.81	9	610.29	0.188	114.735	103.650	19.49
17	67.13	9	604.17	0.17	102.709	109.579	18.63
18	66.46	9	598.14	0.153	91.515	115.847	17.72
19	65.79	9	592.11	0.138	81.711	122.473	16.90
20	65.14	9	586.26	0.124	72.696	129.479	16.06
		Total			5886.883		530.85

* The NMGG, Project Cost and O&M Charges (including insurance charges) are to be filled in by the bidders. Value indicated in the sheet is only for illustration purpose.

** The discount factor has been considered as 11%.

* ** For the purpose of evaluation, traiff as idicated in column-3 has been assumed, which will also be considered for evaluation of all the bids.

NOTE :

1) The net cost to RSMM shall be the sum of Capital Cost as quoted by the bidder plus discounted value of O&M cost (including insurance cost).

2)The Evaluation shall be considered based on cost benefit factor as under:

$$\text{Cost Benefit factor:} = \frac{\text{Sum of discounted annual revenues}}{\text{Sum of Capital Cost as quoted by the bidder plus Discounted value of O\&M Cost}}$$

$$\frac{5,886.883}{10,530.853}$$

$$0.559$$

For the purpose of evaluation, NMGG of 18 Lac Kwh per MWp per year or as offered, whichever is lower, will only be considered

PROFORMA OF GUARANTEE BOND FOR EARNEST MONEY DEPOSIT

(To be issued by any public sector banks, ICICI Bank, HDFC Bank & Axis Bank, having its Branch office at Udaipur on non-judicial stamp paper of appropriate value)

B.G. No. _____

Dated _____

This Deed of Guarantee made between _____ all public sector banks/ ICICI Bank/HDFC Bank/ Axis Bank, having its registered office at _____ and its head office at _____ and wherever the context so required include its successors and assignees (hereinafter called the Surety/ Bank) & Rajasthan State Mines & Minerals Limited, a Company incorporated and registered under the Indian Companies Act, 1956, having its registered office at 89-90, Janpath, Lal Kothi, Jaipur and Corporate Office at 4 Meera Marg, Udaipur 313004, Rajasthan, and wherever its context so required includes its successors and assignees (hereinafter called 'the Company').

Whereas the company having agreed to exempt M/s _____ a company/ partnership firm _____ (address of registered / H.O.) wherever the context so require includes its successors and assignees (hereinafter called 'the Tenderer') from the demand under the terms and conditions of tender no. RSMM/CO/PROJ/Solar-I/09 dated ----- for installation of Solar Power Plant with accessories on turnkey basis for an installed capacity of nearest 5 MWp Solar Power Project in Rajasthan (hereinafter called 'the said Tender) of Earnest Money Deposit to be paid in cash or by Demand Draft for the due fulfillment by the said tenderer of terms and condition contained in the said tender on production of unconditional and irrevocable Bank Guarantee for Rs. 50.0 Lacs.

Now this deed witnesseth that in consideration of said bank having agreed on the request of the Tenderer to stand as surety for payment of Rs. 50.0 Lacs as Earnest Money deposit to the company subject to the following conditions.

- (i) We, _____ (Bank) do hereby undertake to pay to the company an amount not exceeding Rs. 50.0 Lacs against any loss or damage caused to or suffered or would be caused to or suffered by the company by reason of any breach by the said Tenderer of any of the terms and /or conditions contained in the Agreement (the decision of the company as to any such breach having been committed and loss/damage suffered to shall be absolute and binding on us).
- (ii) We, _____ (bank) do hereby undertake without any reference to the Tenderer or any other person and irrespective of the fact whether any dispute is pending between the company and the Tenderer before any court or tribunal or Arbitrator relating thereto, to pay the amount due and payable under this guarantee without any demur, and/or protest merely on the very first demand from the company stating that the amount claimed is due by way of loss or damage caused to or suffered by or would be caused to or suffered by the company by reason of any breach by the said tenderer of any of the terms and condition contained in the said tender by reason of the said tenderer's failure to keep the said tender open. Any such demand made on the bank shall be conclusive absolute and unequivocal as regards the amount due and payable by the bank under this guarantee. However, bank's liability under this guarantee shall be restricted to an amount not exceeding Rs.50. Lacs.

- (iii) We, _____ (bank) further agree that the guarantee hereinabove contained shall remain in full force and effect during the period that would be taken for the finalization of the said tender and that it shall continue to be enforceable the said tender till the said tender is finally decided and order placed on the successful tenderer and / or till the company certifies that the terms and the conditions of the said tender have been fully and properly carried out by the said tenderer and accordingly discharges the guarantee, unless a demand or claim under this guarantee is made on the bank in writing on or before, the bank shall be discharged from all liability under this guarantee thereafter unless otherwise further extended by the bank. Any letter of demand delivered at the bank's above branch/divisional office or Udaipur branch office under the signatures of the company's F.A and/or GGM (Projects) / G.M (Projects) or any of the Directors shall be deemed to be sufficient demand under this guarantee.
- (iv) In order to give full effect to the guarantee herein contained the company shall be entitled to act as if, we (bank) are your principal debtor in respect of all your claims against the Tenderer hereby guaranteed by us as aforesaid and we hereby expressly waive all our rights of suretyship and other rights, if any which are in any way inconsistent and/or contrary to the above or any other provision of this guarantee, the bank's guarantee to pay hereunder will not be determined or affected by your proceeding against the Tenderer and the bank will be liable to pay the said sum as and when demanded by you merely on first demand being made on the bank by you and even before any legal or other proceedings taken against the Tenderer
- (v) This guarantee herein contained would come into force from the date of issue and would not be affected by any change in the constitution of the tenderer or ourselves or liquidation or winding up or dissolution or insolvency of the Tenderer nor shall it be affected by any change in company's constitution or by any amalgamation or any absorption thereof or therewith but shall ensure for and be available to and enforceable by absorbing or amalgamated company or concern till the payment of amount not exceeding Rs. 50.0 Lacs is made by the Bank.
- (vi) The guarantee will not be discharged or affected if the Company holds/obtain any other Earnest Money/guarantee/promissory note from any person and/or the Tenderer and this guarantee shall be in addition to any such guarantees.
- (vii) We, _____ (Bank) lastly undertake not to revoke this guarantee during this currency except with the previous consent of the company in writing.
- (ix) The bank has power to issue this guarantee in favour of the Company and the undersigned has full powers to do so under Power of Attorney dated _____ granted to him by the Bank.
- (x) For the purpose of enforcing legal rights in respect of this guarantee Udaipur courts in the state of Rajasthan along shall have jurisdiction

IN WITNESSETH I, HEREBY _____ SON
 OF _____ (designation) _____ (branch) constituted attorney of
 the said bank have set my signatures and bank seal on this guarantee which is being issued on
 non-judicial stamp of proper value as per Stamp Act prevailing in the state of Rajasthan executed at
 _____ this the day _____ of .

PROFORMA OF GUARANTEE BOND FOR SECURITY DEPOSIT

(To be issued by any public sector banks/ ICICI Bank/ HDFC Bank/ Axis Bank, having its Branch office at udaipur on non-judicial stamp paper of appropriate value)

B.G ----- Dated -----

This Deed of Guarantee made between ----- all public sector banks, ICICI Bank, HDFC Bank & Axis Bank, having its registered office at ----- and its head office at ----- and wherever the context so required include its successors and assignees (hereinafter called the Surety/Bank) AND Rajasthan State Mines and Minerals Limited, a company incorporated and registered under Indian companies Act, 1956, having its registered office at C89/90 Lal Kothi Scheme, Janpath, Jaipur and Corporate office at 4 Meera Marg, Udaipur and wherever its context so required includes its successors and assignees (hereinafter called 'the company').

Whereas the Company having agreed to exempt M/s. ----- a company/partnership firm (address of registered/RO.) where ever the context so require includes its successors and assignees (hereinafter called 'the Contractor) from the demand under the terms and conditions of letter of Acceptance no. ----- dated ----- issued in favour of

the Contractor and agreement dated entered into between RSMML and M/s. ----- (Contractor), hereinafter called 'the said letter of Acceptance/agreement' which expression shall also include any amendment, modification or variations thereof made in accordance with the provision thereof, of cash security deposit for the due fulfillment by the said letter of Acceptance/agreement on production of unconditional and irrevocable Bank Guarantee for Rs. ----- (Rs. -----) being equivalent to ----- % of Contract value of Rs. -----

Now this deed witnessed that in consideration of said bank having agreed on the request of the Contractor to stand as surety for payment of Rs. ----- as security deposit to the company subject to the following conditions.

1. We, ----- (Bank) do hereby undertake to pay to the company an amount not exceeding Rs. ----- against any loss or damage caused to or suffered or would be caused to or suffered by the company by reason of any breach by the said contractor of any of the terms and/or conditions contained in the Letter of Acceptance/Agreement The decision of the Company, as to any such breach having been committed and loss/damage suffered to shall be absolute and binding on us.
2. We, ----- (bank) do hereby undertake without any reference to the Contractor or any other person and irrespective of the fact whether any dispute is pending between the Company and the Contractor before any court or tribunal or Arbitrator relating thereto, to pay the amount due and payable under this guarantee without any demur, and/or protest merely on the very first demand from the Company stating that the amount claimed is due by way of loss or damage caused to or suffered by or would be caused to or suffered by the Company by reason of any breach by the said contractor of any of the terms and condition contained in the said Letter of Acceptance/agreement by reason of the said contractor's failure to perform the covenants contained in said letter of Acceptance/agreement. Any such demand made on the bank shall be conclusive absolute and unequivocal as regards the amount due and payable by the bank under this guarantee. However, bank's liability under this guarantee shall be restricted to an amount not exceeding Rs. -----.

3. We, (bank) further agree that the guarantee herein above contained shall remain in full force and effect during the period that would be taken for the performance of the agreement and that it shall continue to be enforceable till all the dues of the company under or by virtue of the agreement have been fully paid and its claim/s satisfied or discharged or till the company certifies that the terms and the conditions of the said Letter of Acceptance/agreement have been fully and properly carried out by the said contractor and accordingly discharges the guarantee, unless a demand or claim under this guarantee is made on the bank in writing on or before (scheduled completion date, plus six months), the bank shall be discharged from all liability under this guarantee thereafter unless otherwise further **extended** by the bank.
4. **In** order to give full effect to the guarantee herein contained the company shall be entitled to act as if, we(bank) are your principal debtor in respect of all your claims against the Contractor hereby guaranteed by us as aforesaid and we hereby expressly waive all our rights of surety ship and other rights, if any which are in any way inconsistent and/or contrary to the above or any other provision of this guarantee, the bank's guarantee to pay hereunder will not be determined or affected by your proceeding against the Contractor and the bank will be liable to pay the said sum as and when demanded by you merely on first demand being made on the bank by you and even before any legal or other proceedings taken against the contractor. Any letter of demand delivered at the bank's above branch/divisional office or Udaipur branch office under the signatures of the company's Financial Advisor and/or Head of SBU & PC - Lignite or any of the Directors shall deemed to be sufficient demand under this guarantee.
5. We, (bank) further agree that the company shall have the fullest liberty without our consent and without affecting in any manner our obligation hereunder to vary any of the terms and conditions of the said Letter of Acceptance/agreement or to extend time of performance by the said Contractor from time to time or to postpone for any time or from time to time any of the powers exercisable by the Company against the said Contractor and to forbear or enforce any of the terms and conditions relating to the Letter of Acceptance/Agreement and we shall not be relieved from our liability by reason of any such variation or extension being granted to the said contractor or for any fore bearance act, or omissions on the part of the company or any indulgence of the Company to the said Contractor or by any such matter or things whatsoever which under the law relating to the sureties would but for this provisions have effect of so relieving us.
6. This guarantee herein contained would come into force from the date of issue and would not be affected by any change in the constitution of the contractor or ourselves or liquidation or winding up or dissolution or insolvency of the contractor nor shall it be affected by any change in company's constitution or by any amalgamation or any absorption thereof or therewith but shall ensure for and be available to and enforceable by absorbing or amalgamated company or concern till the payment or amount not exceeding Rs. _____ is made by the Bank.
7. The guarantee will not be discharged or affected if the Company holds/obtain any other security/guarantee/promissory note from any person and/or the contractor and this guarantee shall be in addition to any such guarantees.
8. We, (Bank) lastly undertake not to revoke this guarantee during this currency except with the previous consent of the company in writing.

9. The bank has power to issue this guarantee in favour of the Company and the undersigned has full powers to do so under power of Attorney dated _____ granted to him by the bank.
10. For the purpose of enforcing legal rights in respect of this guarantee Udaipur courts in the state of Rajasthan alone shall have jurisdiction.

IN WITNESSETH I, HEREBY _____ SON OF _____
(designation) _____ (branch) constituted attorney of the said bank
have set my signatures and bank seal on this guarantee which is being issued on
non-judicial stamp of proper value as per Stamp Act prevailing in the state of
Rajasthan executed at _____ this the day _____ of .

PROFORMA FOR CONTRACT AGREEMENT

This contract agreement for the work of _____ Udaipur made this _____ (_____ Two thousand three) between a Owner registered under the Indian Companies Act, 1956 and having its registered office at _____ herein after called the "Contractor" (which term shall unless excluded by or repugnant to the subject or context shall include its successors and permitted assignees) of the one part and M/s Rajasthan State Mines & Minerals Ltd. a Govt. of Rajasthan Undertaking under the Indian Companies Act, 1956 and having its registered office at C-89, Janpath, Lal Kothi, Jaipur and Corporate Office at 4-Meera Marg, Udaipur hereinafter called the 'Owner' (which term shall, unless excluded by or repugnant to the subject or context include its successors and assignees) of the other part.

Whereas:

The owner being desirous of having provided and executed certain works mentioned enumerated or referred to in the tender documents including short Tender Notice General Tender Notice, General Conditions of Contract, Special Conditions of Contract, Specifications, Drawings, Plans, Time Schedule of Completion of Jobs, Agreed Variations, other documents has called for Tender.

The Contractor has inspected the site and surroundings of the works specified in the tender documents and has satisfied himself by careful examination before submitting his tender as to the nature of the surface, strata, soil sub-soils and ground, the form and nature of site and local conditions, the quantities, nature and magnitude of the work the availability of labour and materials necessary for the execution of work, the means of access to site the supply of power and water there to and the accommodation he may require - and has made local and independent enquiries and obtained complete information as to the matters and things referred to or implied in the tender documents or having any connection therewith, and has considered the nature and extent of all probable and possible situations, delays hindrances or interference's to with the execution and completion of the work to be carried out under the contract, and has examined and considered all other matters, conditions and things and probable and possible contingencies, and generally all matters, incidental and ancillary thereto affecting the execution and completions of the work and which might have influenced him in making his tender.

The Notice Inviting Tender, General Conditions of Contract, Special Conditions of Contract, General Obligations, Specifications, Drawings, Plans, Time Schedule of Completion of Jobs, letter of acceptance of bidder and any statement of agreed variations with its enclosures, copies of which are also hereto annexed, form part of this contract and are included in the expression 'CONTRACT' wherever herein used.

And whereas:

the owner accepted the tender of the contractor for the provision and the execution of the said work at the rates stated in the Schedule of quantities of works and finally approved by Owner (hereinafter called the 'Schedule of Rates') upon the terms and subject to the conditions of contract.

Now this Agreement Witnessed and it is hereby agreed and declared as follows:

In consideration of the payment to be made to the contractor for the work to be executed by him, the contractor hereby covenants with the Owner that the contractor shall and will duly provide, execute and complete the said works and shall do and

perform all other acts and things pertaining to the contract mentioned or described or which are to be implied there from or may be reasonably necessary for the completion of the said work

And

At the said times and in the manner and subject to the terms and conditions or stipulations mentioned in the contract.

In consideration of the due provision execution and completion of the said works, the Owner does hereby agree with the Contractor that the Owner will pay to the Contractor and respective amounts for the work actually done by him and approved by the Owner at the Schedule of Rates and such other sum's payable to the Contractor under provision of contract (such payment to be made at such times in such manner as is provided for in the contract).

In consideration of the due provision, execution and completion of the said works and contractor does hereby agree to pay such sums as may be due to the Owner for the services rendered by the Owner to the Contractor, such as power supply, water supply and other as set out in the said contract and such other sums as may become payable to the Owner towards the controlled items and/or consumable materials or towards loss, damage the owner's equipment, materials construction plant and machinery, such payment to be made at such time and in such manner as is provided in the contract.

It is specially and distinctly understood and agreed, between the Owner and the Contractor that the Contractor shall have no right, title or interest in the site made available by the Owner for execution of the works or in the building, structures or works executed on the said site by the contractor or in the goods, articles, materials etc. brought on the said site

FORM-1

Detailed proposal of 5 MWp Solar power plant up to the point of interconnection of RVPNL / Discom.

- Please provide all relevant technical details like single line diagram of proposed system, capacity of proposed equipment / substation and line, etc. along with its technical specification of general nature like type, capacity of solar modules, JB's, inverters ,LT panels ,Transformers, C.B.'s ,conductors, type of supports, etc,
- The cost part for the 5 MWp power evacuation up to point of inter connection is to be included in the Bid Response Sheet no. 1 (Price Schedule) and no separate charges shall be payable.

(Signature of the Bidder)

**DETAILS FOR 5 MW SOLAR POWER PLANT IN RESPECT OF SELECTION
OF SOLAR PV MODULE AND PCU ETC. BE SUPPLIED ALONG WITH
TECHNICAL & FUNCTIONAL SPECIFICATIONS**

A (DETAILS OF FOLLOWING TO BE SUPPLIED BY THE BIDDERS)

1.	Technology considered
2.	Solar PV Modules (Electrical features)
2.	Solar PV Modules (Mechanical features)
3.	Data Sheet for Solar PV Modules
4.	Module mounting structures
5.	Junction Boxes
6.	Power Conditioning Unit
7.	Cables and Installation accessories
8.	Earthing & Protection
9.	Space for Solar PV Array
10.	Bill of Materials
11.	Spare Parts
12.	Type Test
13.	Installation & Commission
14.	Support / Training

B(Data Sheet for the Solar PV Module**to be furnished with Techno-commercial bid)**

(To be filled up by Bidder)

Under Standard Testing Condition

1.	PV Module Manufacture name & Country	
2.	PV Module type	
3.	Product Code	
4.	Product Status	
5.	No. of PV cells per Module	
6.	Mounting arrangement for Solar Module	
7.	Solar Module frame material	
8.	Module (a) dimensions (b) Weight	
9.	Output Cables (viz., Polarized Weather Proof DC rated multi-contact connector)	
10.	Weather resistant HDPE Junction Box (IP65)	
11.	Construction (a)front (b)back	
12.	Temperature rise of solar cells under severe working conditions over Max. Ambient Temp.	
13.	Nominal voltage	
14.	Nominal Wattage (Power)	
15.	Power Tolerance (3%)	
17.	Peak power voltage (Vmp)	
18.	Peak power current (Imp)	
19.	Open circuit voltage (Voc)	
20.	Short circuit current (Isc)	
21.	Module efficiency	
22.	Expected life of the module as per manufacturer, duly supported by accredited agency.	
23.	Year wise deration ,if any.	
24.	Cell efficiency	
25.	Fill Factor	
26.	Standards/Approvals from International Agencies	IEC 61215/IEC 61730 TUV
27.	Module is suitable to operate at 50 ⁰ ambient	Yes/No

Note: Test reports/certificates from IEC/NABL accredited laboratory as per relevant IEC standards to be submitted along with offer.

(C) Bidder is also required to provide a typical power line diagram of SPV Grid connected system and power evacuation part along with TENDER.

(D) Technical Particular Data Sheet for Power Conditioning Unit

(To be furnished with Techno-commercial bid)

(To be filled up by Bidder)

Under Standard Testing Condition

AC Side	Unit	Value
Nominal AC power		
Output AC voltage		
Frequency		
Total Harmonic Distortion		
AC over/ under voltage over/ under frequency protection		
Phase shift (cos phi)		
DC Side		
PV power		
Maximum DC voltage		
MPPT voltage range		
Maximum DC current		
DC over voltage protection		
DC voltage ripple		
Others		
Minimum Efficiency (CE)		
Ambient temperature range		
Humidity (non condensing)		
Quiescent power		
Degree of protection		
Dimensions approx. (HXW XD)		
Weight		

(E) TECHNICAL PARTICULARS OF 415V/33-kV STEP-UP TRANSFORMER

(To be furnished with Techno-commercial bid)

(To be furnished by the bidder)

S. No.	Description	Guaranteed particulars to be filled in by the bidder
1.	Service	
2.	Type	
3.	Rating	kVA
4.	Rated frequency	Hz
5.	Number of phase HV side LV side Neutral (separate outside)	
6.	Rated Voltage a) HV winding b) LV winding	kV kV
7.	Vector group	
8.	Type of cooling (ONAN/ONAF)	
9.	Insulation level a) Power frequency withstand -kV rms. (HV/LV) Impulse withstand voltage - b) kV (HV/LV)	
10.	Method of Earthing	
11.	Duty	
12.	Short circuit level	
13.	Off circuit tap changer: a) Range % b) In steps of c) Tapping provided on HV side	
14.	Tap changer type	
15.	Impedance voltage at 75°C a) At principal tapping %	
16.	Temperature rise above 50°C ambient a) Top of oil by thermometer °C	
17.	Terminal details a) HV side b) LV side	

(F) SOURCE OF COMPONENTS

S.No	Item Description	Vendor	Type offered	Source country
1.				
2.				
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				
11.				
12.				
13.				
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16.				
17.				
18				
19				
20				
21				
22				
23				
24				
25				
26				

UNDERTAKING
(ON LETTER HEAD)

We, M/s. With registered office at undertake the generation of electrical energy (at the end of first year and thereafter as per quoted generation below) from the Solar Power Plant of 5 MWp to be installed by us ,as per the details given in our bid. We have calculated the quantum of electrical energy likely to be generated with the Solar Data for proposed site with derating factors. NMGG has been quoted in the Bid considering all relevant factors as required. We also confirm that we have inspected the site.

NET MINIMUM GUARANTEED GENERATION (ON ANNUAL BASIS)

(This is to be supported by Simulation Sheet AND solar data considered for sites as given in bid response sheet No. 3, to be submitted with techno-commercial bid.)

S.No.	Year	NMGG offered in Lacs Kwh
1.	1.	
2.	2.	
3.	3.	
4.	4.	
5.	5.	
6.	6.	
7.	7.	
8.	8.	
9.	9.	
10.	10.	
11.	11.	
12.	12.	
13.	13.	
14.	14.	
15.	15.	
16.	16.	
17.	17.	
18.	18.	
19.	19.	
20.	20.	

Signature of Bidder
(With seal)

SITE DESCRIPTION**Offered by bidder**

Village	
Tehsil	
District	
State	RAJASTHAN
Location	
Land Available	
Khasra No.	
Type of Land	
Latitude	
Longitude	
Altitude	
average monthly Direct Normal Radiation	
Nearest 132/33 kV Substation.	
Land basis	Free hold / Sub lease

Khasra Map with jamabandi is to be placed.

Details of Solar Geometry, Metrology (Temperature and Wind) and Monthly Average Relative Humidity and Atmospheric Pressure are to be provided.

Signature of Bidder
(With seal)

LETTER OF SUBMISSION OF TENDER
(on letter head)

FROM:

To:

Rajasthan State Mines & Minerals Ltd.,
4, Meera Marg, Udaipur-313001

Sub: Tender for the work of **“Installation of Solar PV Power Plant with all required accessories on turnkey basis for an installed capacity of 5 MWp along with its comprehensive O&M to give guaranteed generation for a period of 20-years.**

Ref: Tender No. RSMM/CO/Projects/13-14 Dated: -----

Dear Sir,

1. I/We possessing requisite competence, resources, experience, skill & expertise, hereby tender my/our bid for execution of the above work as mentioned in the tender document. I/We have carefully examined the documents connected with the above mentioned work and agree to abide by the same.
2. I/We agree to complete the contract at the schedule of rates quoted by me/us for the work in accordance with all the terms & conditions of the Tender Document.
3. I/We agree to complete the contract as per terms and conditions as mentioned in the tender document. In case of failure on my/our part, I/We shall pay compensation to the Company as per the provisions and stipulation as contained in the terms and conditions of the tender documents.
4. I/We have deposited Earnest Money as per NIT in the form of DD in favor of RSMML payable at Udaipur, particulars thereof are mentioned herein below. I/We further agree to furnish the Security deposit and accept all the terms and conditions laid down in the Tender Document in this respect.

Details of DD/BG for EMD:-----

5. In the event of acceptance of our tender, I/We hereby agree to abide by and fulfill all terms and conditions referred to in the tender document including price bid and in case of any default thereof the company shall have the right to forfeit the EMD and/or security deposits, or pay to the company or it's successors or it's authorized nominee such sums of money as stipulated in the conditions contained in the tender documents.
6. I/we enclose documentary proof of requisite document as specified in the tender documents.
7. I/We am/are fully aware of the statutes/laws/rules in connection with working at the site. I/We agree to abide by the applicable statutory provisions.
8. I/We hereby confirm that Price Bid (Part II) of the tender contains no stipulation/counter conditions.
9. I/We agree to accept the decision of the Company in respect of pre-qualification of my/our bid and accordingly submitting all relevant documents related to fulfillment of pre-qualifying criteria.
10. We hereby declare that the decision of the RSMML management in selection/rejection of the tender/contractor shall be acceptable and binding on me/us.

Date, the __day of, __ 20....

Signature of tenderer(s)
With the seal of the firm.

Witness Name in Block Letters: Full Address

FORM-6**General Information about the Tenderer**

Name and address of Tenderer			
Name of Contract Person with Phone/Fax No./E-Mail			
Whether Individual, Firm or Company			
Date of Incorporation (Enclose Partnership Deed/Certificate of incorporation)			
Name of Owner/Partners/Directors			
Turnover (in Lac.Rupees)	10-11	11-12	12-13
Name & Address s of Banker(s)			
PAN No,			
Service Tax Registration No.			
PF Account number			
If tenderer is in any other business also Please specify			
Others (specify)			

Bank Details of Tenderer for RTGS/NEFT/Online refund of EMD/payment of bills

Sl.No.	Description	Details
1	Name of Tenderer	
2	e-mail ID	
3	Mobile no.(for SMS)	
3	Bank Account No.	
4	Banker details: a) Name b) Branch No. c) Address	
5	Type of A/c : Saving / Current / CC/ any other	
6	IFSC code	

Name & Signature of Tenderer

with seal

FORM-7

LIST OF SIMILAR JOBS EXECUTED/WORK EXPERIENCE

(To be furnished by the bidder)

S.N.	Clients Name, Address & Telephone/Fax Numbers	Details of Work & Place	Value of Work (Rs.)

► Note:

1. Furnish work order, performance reports, completion report or any other authentic supporting document.
2. Furnish latest performance reports from Clients certifying the successful O&M for last one year.

SIGNATURE & SEAL OF BIDDER

PROFORMA FOR EXCEPTIONS AND DEVIATIONS

The bidder is required to stipulate the list of exceptions & deviations, if any in the proforma given below only: Any deviations given elsewhere in the offer will not be considered.

S.No	Description of Section of tender doc / Page no.	Clause No.	Exceptions & deviations with justifications

Signature of Bidder

Annexure - I

DETAILS OF TAXES & DUTIES OFFERED IN PRICE BID

Name of Tenderer _____

Particulars	% Rate considered in price bid
Excise Duty	@.....%
CESS on ED	@.....%
CST against form "C"	@.....%
VAT	@.....%
Service tax	@.....%
Details of Exemption on Duties & Taxes, if any.

Note: In case the tenderer is availing any exemption/ concession on ED, CST/VAT etc. the details of the same should be clearly provided and the supporting document issued by the respective Govt. Deptt./ agencies should be enclosed.

RSMML will not issue 'C' form to the party.

Signature of tenderer with official stamp

Date:

Place:

AFFADAVIT

(on non judicial stamp paper worth Rs10/-)

Tender No.....
Name of Tenderer.....

I.....S/o Shri.....aged.....Years,
resident of.....on behalf of the
tenderer i.e. M/s.....hereby undertake oath

and state as under:

- (1) I / We are not having or had any litigation with the RSMML/any other company in relation to the work. In case of litigation with RSMML or any other company, I/we hereby undertake that such litigation will not restrict me/us in smooth execution of tendered work.
- (2) I/We have not been banned /suspended /de-listed by RSMML.
- (3) I/We declare that I/We have not mentioned any exception /deviation of the tender conditions in our offer other than form for exception & deviation.
- (4) I/We declare that price bid is in prescribed performa & no conditions are attached to it .Even if any conditions /s found, those would be ignored at the risk & cost of us.
- (5) That we are registered under MSMED Act & registration number of the firm is
(Copy enclosed) or that we are not registered under MSMED Act.
- (6) I/We do hereby declare that I/We have fully read and understood the purpose and contents of all the terms and conditions of this contract, nature, quantum, contract period and scope of work of the tender document and all terms& conditions of this tender and these are acceptable to we/us.
- (7) I/We do hereby declare that I/We have fully read and understood the provisions of Rajasthan transparency in public procurement Rules 2013 and all terms and conditions mentioned therein are acceptable to me/us.

Signature of Tenderer(s)

(Authorized Signatory)

With Seal

Place:

Date:

Note: Original Notarized affidavit shall be sent to the office of Advisor & Head (Projects), RSMML,4-Meera marg, Udaipur-Raj-313001 along with Tender fees, processing fees and EMD.

Compliance with the Code of integrity and No Conflict of Interest

Any person participating in a procurement process shall:

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

Conflict of Interest:

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

A Conflict of Interest is considered to be a situation in which a party has interests that could improperly influence that party's performance of official duties or responsibilities, contractual obligations, or compliance with applicable laws and regulations.

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

Name & Signature of Tenderer

with seal

Declaration by the Bidder regarding Qualifications

Declaration by the Bidder

In relation to my/our Bid submitted to For procurement of in response to their Notice Inviting Bids No. Dated I/We hereby declare under Section 7 of Rajasthan Transparency in Public Procurement Act, 2012, that:

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

Date

Place

Signature of bidder

Name:

Designation:

Address:

The designation and address of the First Appellate Authority is –

Mines Department, Govt. of Rajasthan, Jaipur.

The designation and address of the Second Appellate Authority is –

Finance Department, Govt. of Rajasthan, Jaipur.

(1) Filing an appeal

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

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

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

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

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

(4) Appeal not to lie in certain cases

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

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

(5) Form of Appeal

- (a) An appeal under para (1) or (3) above shall be in the annexed Form along with as many copies as there are respondents in the appeal.
- (b) Every appeal shall be accompanied by an order appealed against, if any, affidavit verifying the facts stated in the appeal and proof of payment of fee.
- (c) Every appeal may be presented to First Appellate Authority or Second Appellate Authority, as the case may be, in person or through registered post or authorized representative.

(6) **Fee for filing appeal**

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

(7) **Procedure for disposal of appeal**

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

Name & Signature of Tenderer

with seal

**Memorandum of Appeal under the Rajasthan Transparency in Public Procurement Act,
2012**

Appeal No. of
Before the(first/second Appellate Authority)

1. Particular of appellant:
 - (i) Name of the appellant:
 - (ii) Official address, if any:
 - (iii) Residential address:
 2. Name and address of the respondent(s):
 - (i)
 - (ii)
 - (iii)
 3. Number and date of the order appealed against and name and designation of the officer/authority who passed the order (enclosed copy, or a statement of a decision, action or omission of the Procuring Entity in contravention to the provisions of the Act by which the appellant is aggrieved:
 4. If the Appellant proposes to be represented by a representative, the name and postal address of the representative:
 5. Number of affidavits and documents enclosed with the appeal:
 6. Ground of appeal :
.....
.....(Supported by an affidavit)
 7. Prayer:
.....
.....
- Place
Date
Appellant's Signature

Additional Conditions of Contract

1. Correction of arithmetical errors

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

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

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

2. Procuring Entity's Right to Vary Quantities

- (i) At the time of award of contract, the quantity of Goods, works or services originally specified in the Bidding Document may be increased or decreased by a specified percentage, but such increase or decrease shall not exceed twenty percent, of the quantity specified in the Bidding Document. It shall be without any change in the unit prices or other terms and conditions of the Bid and the conditions of contract.
- (ii) If the Procuring Entity does not procure any subject matter of procurement or procures less than the quantity specified in the Bidding Document due to change in circumstances, the Bidder shall not be entitled for any claim or compensation except otherwise provided in the Conditions of Contract.
- (iii) In case of procurement of Goods or services, additional quantity may be procured by placing a repeat order on the rates and conditions of the original order. However, the additional quantity shall not be more than 25% of the value of Goods of the original contract and shall be within one month from the date of expiry of last supply. If the Supplier fails to do so, the Procuring Entity shall be free to arrange for the balance supply by limited Bidding or otherwise and the extra cost incurred shall be recovered from the supplier.

Name & Signature of Tenderer

with seal

Bid Response Sheet No.1

**(To be filled in BOQ-1, on line)
SCHEDULE OF PRICE – I (Price Bid)**

S. N	Particulars (Firm & Fixed in Indian Rupees)	
	Turnkey Cost of 5 MWp complete solar power plant including cost of solar panels, structures, cables, JBs, Inverters, LT panels, transformers, control panel, Circuit breakers etc and cost of internal cabling & lines and associated switchgear. Equipments required for interfacing with grid substation, civil works, transportation, insurance in transit to site and storage and other auxiliaries design, erection commissioning , testing and all other works enabling Solar power project work complete in all respects as per the scope of work (inclusive of imported components and all types of taxes, duties, levies, etc). This also includes the cost of power evacuation system and metering system (s) as required by RVPNL / Discom up to the point of inter connection with the State grid.	
1	Supply of solar panels with structure (complete unit) required for 5 MWp.	Rates to be filled in BOQ
2	Supply of Inverter/PCU ,junction boxes etc. required for 5 MWp	Rates to be filled in BOQ
3	Supply of transformers, Circuit breakers with associated units and protective gears for 5 MWp	Rates to be filled in BOQ
4	Supply of cables/Wires /pipes etc (in one lot) required for 5 MWp.	Rates to be filled in BOQ
5	SCADA and data logger system	Rates to be filled in BOQ
6	Metering system as per requirement of RVPNL/Discom	Rates to be filled in BOQ
7	Power evacuation system up to metering point	Rates to be filled in BOQ
8	Cost for arrangement of land	Rates to be filled in BOQ
9	Other items not mentioned above but required for turnkey completion of 5 MWp Solar power plant	Rates to be filled in BOQ
10	Cost of erection, commissioning & civil works for 5 MWp. Solar Power Project.	Rates to be filled in BOQ
	Total (Sum of items mentioned above will be the total turnkey cost of 5 MWp solar power plant)	Rates to be filled in BOQ

Note:

- Any item of work not mentioned in the above particulars, but written elsewhere in the scope of work or in Technical Specification or essentially required for completion of works, proper operation and maintenance of Solar power plant, safety of equipment and operating personnel shall be deemed to have been included in the above particulars.
- At the point of inter connection with RVPNL / Discom system, the work has to be carried out as per instructions and approval of RVPNL /Discom and its cost is included in the above price.
- The work has to be carried out as per the I.E/ IEC Rules & Code of practice and prudent utility practices along with the approvals of statutory authorities.
- To work out the cost benefit factor an illustration sheet is provided.
- The statutory fee payable to RVPNL/Discom/RRECL shall be reimbursed at actual against documentary evidence, so need not to be included in the above price schedule.
- The aforesaid contract prices are inclusive of all taxes and duty including service tax.
- Lowest bidder shall be determined as per clause no.10 of DNIT of tender document.

Signature of Bidder
With seal

**(To be filled in BOQ-2, on line)
SCHEDULE OF PRICE – II
Price Bid**

	O&M Charges inclusive of all applicable Taxes, Duty. Levies etc. to be quoted by the Bidder per year basis for comprehensive Maintenance and Operation of 5 MWp solar PV power plant, its control room& others, power evacuation system and all other work as per scope of work and as per specifications and terms & conditions of tender document inclusive of required insurance premium.			O&M charges
		1 st	Year	Rates to be filled in BOQ
		2 nd	Year	Rates to be filled in BOQ
		3 rd	Year	Rates to be filled in BOQ
		4 th	Year	Rates to be filled in BOQ
		5 th	Year	Rates to be filled in BOQ
		6 th	Year	Rates to be filled in BOQ
		7 th	Year	Rates to be filled in BOQ
		8 th	Year	Rates to be filled in BOQ
		9 th	Year	Rates to be filled in BOQ
		10 th	Year	Rates to be filled in BOQ
		11 th	Year	Rates to be filled in BOQ
		12 th	Year	Rates to be filled in BOQ
		13 th	Year	Rates to be filled in BOQ
		14 th	Year	Rates to be filled in BOQ
		15 th	Year	Rates to be filled in BOQ

		16th	Year	Rates to be filled in BOQ
		17th	Year	Rates to be filled in BOQ
		18th	Year	Rates to be filled in BOQ
		19th	Year	Rates to be filled in BOQ
		20th	Year	Rates to be filled in BOQ

O&M charge shall include cost of all items of work included in the scope of work and other heads as stipulated in the tender document, rates are to be inclusive of spares, manpower, insurance, service tax, and all other expenses of the contractor which will be required for Comprehensive Maintenance and Operation of wind Power Plant.

The aforesaid contract prices are inclusive of all taxes and duty including service tax.

Lowest bidder will be determined as per clause no.10 of DNIT of tender document.

Signature of Bidder
With seal