PUDUCHERRY POWER CORPORATION LTD,

(Govt. Of Puducherry Undertaking)

T.R. Pattinam, KARAIKAL

TENDER DOCUMENT FOR DESIGN, SUPPLY, INSTALLATION AND COMMISSIONING OF 85 KWp ONGRID ROOFTOP SOLAR PV AT SRI DHARBARANYESWARASWAMY DEVASTHANAM,THIRUNALLAR

NOTICE INVITING TENDER

1.	Name of work	EPC of 85 KWp grid connected solar roof top PV Power plant under net metering policy at Sri Dharbaranyeswaraswamy Temple, Thirunallar, Karaikal.
2.	Estimated cost	R RRs. 50,00,000.00
3.	Time allowed for completion	60 days from issue of Letter of Acceptance (LOA)
4.	Earnest Money Deposit	Rs.1,50,000/- all Drafts/BCs shall be in favor of "The Managing Director, PPCL, Karaikal"
5.	Initial Security Deposit	3% of the contract value including EMD
6.	Retention amount	5% of the contract value including Security deposit.
7.	Date & Venue of pre-bid meeting	All clarifications will be published in www.Pudutenders.gov.in website.
8.	Date and time of Publishing/opening of tender	Will be uploaded in www.Pudutender.gov.in Website
9.	The address at which the tenders Clarification/EMD are to be address	The Superintending Engineer, PPCL Project Office, Karaikal
10.	Place of opening tenders	PPCL Project Office, Karaikal
11.	Defects Liability Period	60 months from date of completion of the work
12.	Validity of offer	90 days
13.	Liquidated Damages	0.5% of the total contract amount per week beyond the date of completion, subject to maximum of 10% of the contract value.
14.	Payment Terms	10% against approval of Drawing & Specification and Submission of ABG 40 % Against Supply of Material 30% Against Successful Commissioning and Connecting to Grid. 15% on Trouble free operation for Three Months Remaining 5% will be held with us as security deposit for 5 years and could be released after submission of performance Bank Guarantee from any Nationalized/scheduled/commercial Bank

PART A

SECTION – 1.0

INSTRUCTIONS TO BIDDERS

1.1 GENERAL INSTRUCTIONS

1.1.1 Puducherry Power Corporation Limited (PPCL) with its registered office at #10, Second Cross, Jawahar Nagar, Boomianpet, Puducherry – 605 005, India (hereinafter referred to as "CONSULTANT") on behalf of Sri Dharbaranyeswaraswamy Devasthanam, Thirunallar, Karaikal (hereinafter referred to as "PURCHASER"), invites Bid Proposal for Design, Supply, Installation and Commissioning of On Grid Rooftop 85 KWp (AC) Solar Photovoltaic Power Plant at Sri Dharbaranyeswaraswamy Temple, Thirunallar, in the Karaikal region, Union Territory of Puducherry. Nearest railway head is Karaikal. Nearest airport is Tiruchirapalli.

1.1.2 E-Tender is invited on behalf of Puducherry Power Corporation Limited by the Managing Director, up to 11.00 a.m. on the due date from all intending tenderer(s) for Design, Supply, Installation and Commissioning of On Grid Rooftop 85 KWp (AC) Solar Photovoltaic Power Plant as per the Specification and Scope of work as detailed below.

1.1.3 Any clarification in E-tenders should be addressed to the Superintending Engineer, Puducherry Power Corporation Limited, T.R.Pattinam, Karaikal.

1.1.4 The e-tender should be as per the BOQ form. The Lowest bidder shall be considered on Lump sum basis.

1.1.5 To participate in the tender through the e-tendering mode, parties have to obtain Digital Signature Certificates (DSC) through which they can register in the website www.pudutenders.gov.in and upload their offer. For list of authorized certifying Authorities for issuing Digital Signatures in India, please refer the website www.cca.gov.in.

1.1.6 In case you need any training for registering & uploading of an offer in the website/clarification in the tender, you are requested to contact us (04368-233060) in the working hours from 09.00 AM to 5.00 PM on all working days.

1.1.7 Parties participating in the bidding process shall submit a Demand Draft payment of Rs 1050/- (Rupees One thousand and fifty only) in favor of "The Managing Director, PPCL, Karaikal", as tender fee and enclose the same along with other documents. The tender fee is not exempted for NSIC/SSI certificate/ PSU bidders. The cost of the bid is not refundable.

1.1.8 Rejection of bids will be considered non responsive and will be rejected on following grounds.

a) Non uploading of Prequalification requirements.

b) Non Payment of tender document fee of Rs.1050 (Rupees One thousand and fifty only) as Demand Draft.

c) Non-payment of EARNEST MONEY DEPOSIT of Rs.1,50,000/-(Rupees. One Lakhs Fifty Thousand only) as Demand Draft or Non submission of

valid SSI / NSIC certificate, in lieu of EMD

d) Non uploading of bids in standard BOQ Format.

e) Pre-qualification requirement not as per tender.

f) Technically and / or commercially non compliance tenders.

g) If party does not quote for Complete Package System

1.1.9 PPCL reserves right to assess the capability and capacity of the bidder by asking further documents.

1.2 PROJECT INFORMATION

Information regarding the project location, approach to the site etc. is mentioned as above. The meteorological data are as mentioned below:

1	**Climatic Conditions**	Atmosphere is generally saline, hot and humid
2	**Altitude**	3.0 M above MSL (Graded Level)
3	**Ambient Air Temperature**	
	Monthly Mean Maximum	32.6 Deg.C
	Monthly Mean Minimum	24.9 Deg.C
	Maximum Temperature ever recorded	39.2 Deg.C
	Minimum Temperature ever recorded	21.0 Deg.C
	Reference temperature for design of electrical equipment	45.0 Deg.C
4	**Relative Humidity**	
	Monthly Mean Maximum	90%
	Monthly Mean Minimum	60%
	Maximum ever recorded	100%
	Minimum ever recorded	17%
5	**Rainfall**	
	Highest monthly total in wettest month	487.5 mm
	Lowest monthly total in driest month	0.9 mm
	Highest rainfall ever	293.1 mm
6	**Wind Velocity**	
	Monthly mean Maximum	18.5 km / hr
	Cyclonic Storms upto	Approx. 2 per year with wind velocity 200 km / hr
	Design wind pressure	In accordance with IS:875
7	**Seismic Data**	Zone II as per IS : 893

1.3 PROJECT SCHEDULE

The system / equipment's specified herein are required to be delivered / commissioned within 60 Days from the date of placement of order / LOI and the

bidder shall take this into account in quoting his delivery period.

1.4 CONTRACT CURRENCY

The Contract shall be quoted in Indian Rupees (INR) only.

1.5 BID SECURITY –EARNEST MONEY DEPOSIT (EMD)

1.5.0 A Scanned copy of Bid Security, paid offline as per clause 1.5.6, shall accompany the bid for an amount of Rs. 1,50,000/- (Rupees One lakhs fifty thousand only) along with bid.

1.5.1 The Bid Security shall be made payable without any precondition to the Purchaser.

1.5.2 Bidders shall not withdraw as a whole or in part, any clarification/confirmation given by them subsequent to submission of their bids. In the event of any such withdrawal, the Purchaser shall have the right to encash or invoke the Bid Security. Any change in the Terms & Conditions originally submitted by the Bidder shall be considered as withdrawal of the Bid.

1.5.3 Parties registered with NSIC or SSI and PSU/MSME is exempted for submitting EMD. However copies of supporting Documents/Certificates should be uploaded. Other Concerns must upload the scanned copy of EMD

1.5.4 The Bid Security may be forfeited: a) If a Bidder revises or withdraws their Bid Proposal during the period of its validity specified by the Purchaser; or b) After the issue of the LOI / Supply Order, if the Bidder fails to execute the Bank Guarantee within the specified period.

1.5.5 Bid security of successful bidder will be returned to him after the receipt of Contract agreement as per Annexure –A and Performance Bank Guarantee as per Annexure–B. Bank Guarantee should be valid Till completion of Contract plus Warranty Period of one year with the claim period additional 60 days.

1.5.6 **PAYMENT MODE FOR BID SECURITY & TENDER FEE** Earnest Money Deposit, for an amount of Rs.1,50,000/- (Rupees One lakhs fifty thousand only) through Demand Draft from Nationalized / Scheduled Bank , payable in favor of "The Managing Director, PPCL, Karaikal" and payable at Karaikal to be submitted. The scanned copy of the Demand-Draft to be uploaded with the bid document. The originals of the Demand-Draft should be sent by post/courier/hand-receipt and to be addressed to the Managing Director, PPCL, T.R.Pattinam, Karaikal-609 606 to reach PPCL before the date and time of opening the bid.

The bidder has to ensure that the Demand draft is valid beyond the date of tender opening. PSU & Parties registered with NSIC or SSI or MSME are exempted for submitting EMD. However copies of supporting Documents/Certificates for availing exemption from EMD payment should be uploaded and copies be sent by post/courier/hand-receipt and to be addressed to the Managing Director, PPCL, T.R.Pattinam, Karaikal-609 606 to reach PPCL before the date and time of opening the bid.

1.6 TENDER DOCUMENTS AND SUBMISSION OF BID

1.6.0 The bidding procedures, contract terms and other requirements are prescribed in the bidding documents.

1.6.1 The e-Bid proposal will be divided into two parts and should be uploaded in two separate covers named as below:

Cover – 1:

- Scanned copies of Demand Draft of Tender Fee of RsRs.1050/- and EMD of Rs 1,50,000/- or exemption copies as per clause 1.5.1.
- Prequalification Cover: Containing scanned copies of Pre-qualification requirement as stated in **Part B.**
- Techno Commercial details: Vendor must submit the following Documents
  - SLD
  - Technical Catalogue
  - Bill of Material
  - Other required documents
  - Acceptance of Commercial Terms and Conditions

Cover - 2 : Price Bid proposal in standard BOQ Format.

1.6.2 Bid proposal submitted by telex/fax/telegram/e-mail and any documents/bids received before tender opening date will be rejected.

1.6.3 The PURCHASER/ CONSULTANT reserves the right to reject any bid, which is not submitted according to the instructions, stipulated above and no revised price bid will be acceptable.

1.7 PRICE

Total price quoted by the Supplier in his bid, additions and deletions as may be agreed and incorporated in the letter of award, for the entire Design, Supply, Installation and Commissioning of On Grid Rooftop 85 KWp (AC) Solar Photovoltaic Power Plant shall be treated as the Total price.

The capacity of the solar power plant may vary depends upon the confirmation of the Distribution Licensee (PED). Hence vendor may consider the above while offering.

1.8 LANGUAGE OF THE BID

1.8.0 All information in the bid proposal shall be in English.

1.8.1 Information in any other language shall be accompanied by its translation in English. Failure to comply with this may disqualify a bid proposal. In the event of any discrepancy in meaning, the English language copy of a document shall govern.

1.8.2 If the certificates of experiences etc. are in language other than English, true copy of the original certificate should be submitted along with its English translation.

1.9 CLARIFICATIONS ON DOCUMENTS AND SPECIFICATIONS

The bidder is advised to visit and examine the site where the facilities are to be installed and its surroundings and obtain for itself on its own responsibility all information that may be necessary. The costs of visiting the site shall be at the bidder's own expense.

1.10 AMENDMENTS TO TENDER DOCUMENTS

1.10.0 The PURCHASER/ CONSULTANT reserves the right to issue any revision, amendments, clarifications, etc to the specifications and documents to the bidders , giving reasonable time, prior to the last date of receipt of the Bid. PURCHASER/ CONSULTANT will bear no responsibility or liability arising out of non-receipt of the same in time or otherwise.

1.10.1 In order to give the bidder a reasonable time to take the amendment into account in preparing their bid, the PURCHASER/ CONSULTANT may, at its discretion, extend the deadline for the submission of bids.

1.11 PRICE BASIS

The Bidder shall quote in their proposal, the prices for the entire scope of work and other allied works required for Successful commissioning as required in the BOQ enclosed with the Tender documents on firm basis.

1.12 VALIDITY OF THE BID

1.12.0 The bid should be kept valid for acceptance for a period of 90 (ninety days) from the date of opening of bids. In case any bidder quotes a lower validity period than that called for, his offer shall be rejected.

1.12.1 In exceptional circumstances, the PURCHASER/ CONSULTANT may solicit the bidder's consent to an extension of the period of the validity. The request and response there to shall be made in writing (including fax or e-mail).

1.13 COMPARISON AND EVALUATION OF BIDS

The Bid Proposals would be analyzed and evaluated by the PURCHASER/ CONSULTANT. If no specific deviations are indicated in Schedules of deviation, all other implied/implicit or explicit deviation, clarifications/assumptions/confirmation shall be deemed to have no price repercussions and shall be assumed to be withdrawn.

1.14 POST-BID DISCUSSION

PPCL shall have the right to hold post-Bid discussion with few or all of the bidders depending on need.

1.15 AWARD OF CONTRACT

Acceptance of a Bid Proposal by PURCHASER/ CONSULTANT shall be communicated by the issue of a letter accepting the Bid Proposal ('Letter of Intent') by the PURCHASER/ CONSULTANT, for the Contract and such letter shall be made in writing to the successful Bidder by the PURCHASER/ CONSULTANT.

1.16 CONTRACT PERFORMANCE GUARANTEE

1.16.0 Towards contract performance security, the successful bidder shall have to furnish a Contract performance guarantee in the form of Bank Guarantee of five percent (5%) of the total contract price for timely completion and the faithful performance of the contract in accordance with the terms and conditions specified in the contract and in the Tender documents.

1.16.1 The contract performance guarantee as per Performa enclosed as **Annexure B** shall be in the form of an unconditional and irrevocable Bank Guarantee issued or confirmed by any nationalized bank bankers operating under Reserve Bank of India rules subject to the acceptance of Banker's name by the Purchaser.

The Contract performance guarantee shall be furnished within 15 days from the date of LOI and shall be kept valid up to 60 days after the completion of Warranty period.

1.17 QUALITY ASSURANCE PROGRAMME

To ensure that the equipment and services under the scope of this Contract whether manufactured or performed within the Contractor's works or at his sub-Contractor's premises or at the Purchaser's site or at any other place of work are in accordance with the specifications, the Contractor shall adopt Bidder QAP approved by the Purchaser to control such activities a tall points necessary.

1.18 TRANSPORTATION

The Contractor shall be responsible for the transport of the equipment from their place of origin/port of destination to the Project site. All costs related thereto, such as packaging and the like shall be at the Contractor's expense. Any damages thereof caused during transportation of the equipment and materials of the Solar PV Power Plant shall be to the account of the Contractor.

1.19 FURTHER INFORMATION

The PURCHASER/ CONSULTANT reserves the right to ask for any further information as it may deem necessary in its sole discretion to evaluate the Bid Proposal. Bidders who do not submit additional information or clarification sought by the Purchaser within one (1) week of the receipt of the Purchaser's letter requesting for such additional information and/or clarification will be evaluated based on the information furnished along with the Bid Proposal.

1.20 VERIFICATION

The Purchaser reserves the right to contact and verify Bidder(s)' information, references and data submitted in the Bid Proposal without further reference to the Bidders.

1.21 INTERPRETATION OF BID PROPOSAL

The Purchaser reserves the right to use and interpret the Bid Proposals as it may, in its discretion, consider appropriate, when selecting the Bidders for granting of the LOI for the Contract for On Grid Rooftop 85 KWp (AC) Solar Photovoltaic Power Plant at Sri Dharbaranyeswaraswamy Devasthanam, Thirunallar, Karaikal, Union Territory of Puducherry.

1.22 ADVICE TO BIDDERS

The Bidders are advised to study the Tender Document thoroughly and Upload their Bid Proposals in accordance with the instructions contained herein and in conformity with the various conditions laid down in the Tender Document.

1.23 CONFIDENTIALITY

All documents submitted by the Bidder(s) will be treated as confidential but will not be returned to Bidder(s).

PART A

SECTION 2.0

SECTION - 2.0

GENERAL CONDITIONS OF CONTRACT

2.1 SCOPE OF CONTRACT

Scope of contract shall include Design, Engineering and supply, Inland transportation, Insurance, Erection, commissioning of On Grid Rooftop 85 KWp (AC) Solar Photovoltaic Power Plant in accordance with Part-C and additional scope required for successful operation of Solar Photovoltaic Power Plant.

2.2 CONTRACT DOCUMENTS

The term "contract document" shall mean and include the following which shall be deemed to form an integral part of contract.

2.2.1. Invitation to bid including e-bidding documents, instructions to bidders, general terms and conditions of the contract (Part-A)

2.2.2. Specifications of the equipment to be furnished and erected under the contract as brought out in the accompanying technical specifications (Part-B)

2.2.3. Contractor's bid proposal and documents attached there to including the letters of clarifications there to between the contractor and the purchaser prior to the award of the contract except to the extent of repugnancy.

2.2.4. All the materials, literatures, data and information of any sort given by the contractor along with his bid, subject to the approval of the purchaser

2.2.5. Pre Award discussions and Letter of award of the contract.

2.3 USE OF CONTRACT DOCUMENTS AND INFORMATION

The Contractor shall not, without the Purchaser's prior written consent, disclose the contract, or any provision thereof or any specification, plan, drawing, pattern, sample or information furnished by or on behalf of the Purchaser.

The Contractor shall not, without the purchaser's prior written consent, make use of any document or information enumerated in various contract documents except for the purpose of performing the contract.

Any document, other than contract itself, enumerated in various contract documents, shall remain the property of the purchaser and shall be returned (all copies) to the purchaser on completion of the contractor's performance under the contract if so required by the Purchaser.

2.4 DEMURRAGE, WHARFAGE ETC.

All demurrage, wharfage and other expenses incurred due to delayed clearance of the material and which are attributable to the contractor and subcontractor for inland transportation shall be to the account of the contractor.

2.5 INSURANCE

The insurance covers to be taken by the Contractor shall be in a joint name of Purchaser and the Contractor. The Contractor shall, however, be authorized to deal directly with Insurance Company or companies during the contract period and shall be responsible in regard to maintenance of all insurance covers.

Any loss or damage to the equipment during handling, transportation, storage, erection, putting into satisfactory operation and all activities to be performed till the successful completion of Performance Guarantee tests of the plant shall be to the account of the Contractor. The Contractor shall be responsible for preference of all claims and make good for the damage or loss by way of repairs and/or replacement of the equipment, damaged or lost.

All costs on account of insurance liabilities covered under the Contract will be to the Contractor's account and will be included in Contract Price.

2.6 LIQUIDATED DAMAGES

If the Contractor fails to successfully complete the plant system as per the schedule, the Contractor shall pay to the Purchaser as liquidated damages and not as penalty, a sum calculated at the rate of 1/2% (one half percent) of the Contract price of the On Grid Rooftop 85 KWp (AC) Solar Photovoltaic Power Plant for each week or part thereof of delay. The total amount of liquidated damages for delay shall be subject to a maximum of ten percent (10%) of the Contract price.

2.7 NO WAIVER OF RIGHTS

Neither the inspection by the purchaser or any of their officials, employees, or agents nor any order by the Purchaser for payment of money or any payment for or acceptance of, the whole or any part of the Works by the Purchaser nor any extension of time, nor any possession taken by the Purchaser shall operate as a waiver of any provision of the Contract, or of any power herein reserved to the Purchaser, or any right to damages herein provided nor shall any waiver of any breach in the Contract be held to be a waiver of any other or subsequent breach.

2.8 SETTLEMENT OF DISPUTES

Any dispute(s) or difference(s) arising out of or in connection with the Contract shall, to the extent possible, be settled amicably between the parties.

2.9 ARBITRATION

If any dispute or difference of any kind whatsoever shall arise between the OWNER/ PURCHASER and the Supplier, arising out of the Contract for the supply and Commissioning of On Grid Rooftop 85 KWp (AC) Solar Photovoltaic Power Plant whether during the progress of the Contract or whether before or after the termination of the Contract order, it shall, in the first place, be referred to and settled by the Engineer, who, within a period of thirty (30) days after being requested by either party to do so, shall give written notice of his decision to the OWNER / PURCHASER and the Supplier.

Same as hereinafter provided, such decision in respect of every matter so referred shall be final and binding upon the parties until the completion of the Contract and shall forthwith be given effect to by the Supplier who shall comply with all such decisions, with all due diligence, whether he or the OWNER / PURCHASER requires arbitration as hereinafter provided or not.

If after the Engineer has given written notice of his decision to the parties, no claim to arbitration has been communicated to him by either party within thirty (30) days from the receipt of such notice, the said decision shall become final and binding on the parties.

In the event of the Engineer failing to notify his decision as aforesaid within thirty (30) days after being requested as aforesaid, or in the event of either the OWNER / PURCHASER or the Supplier being dissatisfied with any such decision, or within thirty (30) days after the expiry of the first mentioned period of thirty (30) days, as the case may be, either party may require, by written notice to the other party, that the matters in dispute be referred to arbitration as hereinafter provided.

All disputes or differences in respect of which the decision, if any, of the Engineer has not become final or binding as aforesaid, shall be settled by arbitration in the manner hereinafter provided.

The arbitration shall be conducted in accordance with the provisions of the Indian Arbitration & conciliation Act, 1996 or any statutory modification thereof. The venue of arbitration shall be Puducherry, India.

The decision of the majority of the arbitrators shall be final and binding upon the parties. The expense of the arbitration shall be paid as may be determined by the arbitrators. The arbitrators may, from time to time, with the consent of all the parties enlarge the time for making the award. In the event of any of the aforesaid arbitrators dying, neglecting, resigning or being unable to act for any reason, it will be lawful for the party concerned to nominate another arbitrator in place of the outgoing arbitrator.

The arbitrators shall have full powers to review and/or revise any decision, opinion, directions, certification or valuation of the Engineer in consonance with the Contract, and neither party shall be limited in the proceedings before such arbitrators to the evidence or arguments put before the Engineer for the purpose of obtaining the said decision.

During settlement of disputes and arbitration proceedings, both parties shall be obliged to carry out their respective obligations under the Contract.

2.10 COMPLETION OF CONTRACT

Unless otherwise terminated under the provisions of any other relevant clause, this Contract shall be deemed to have been completed at the expiration of the Warranty Period as provided for under the clause entitled "Warranty" in this section.

2.11 WARRANTY

2.11.1 Solar Photovoltaic Panel:

a) The SPV panel shall carry a warranty of minimum 25 years.
b) The SPV panel must be warranted for their output peak watt capacity which shall not be less than 90% at the end of 10 years and 80% at the end of 25 years.

2.11.2 Inverter and other auxiliaries:

a) The Solar Grid tie Inverter shall carry a warranty of minimum 5 years.
b) The complete SPV rooftop systems installed and commissioned shall be under a warranty against any manufacturing or usage defect for a minimum period of 5 years from the date of Commissioning. The mechanical structures, electrical works including power conditioners / inverters/ maximum power point tracker units/ distribution boards/digital meters/switchgear etc. and overall workmanship of the SPV rooftop systems must be warranted against any manufacturing/ design /installation defects for a minimum period of 5 years.

2.11.3 The warranty will be against breakages, malfunctions, non fulfillment of guaranteed performance and breakdowns due to manufacturing defects or defects that may arise to improper operation of electrical / electronic components of the system but do not include physical damages by the end users.

2.11.4 The above warranty shall take effect from the date on which the system is taken over by the Temple management after commissioning.

2.12 TAXES, PERMITS & LICENCES

The Contractor shall be liable and pay all non-Indian taxes, duties, levies, lawfully assessed against the Purchaser or the Contractor in pursuance of the Contract. In addition the Contractor shall be responsible for payment of all Indian duties, levies and taxes lawfully assessed against the Contractor for his personal income and property only.

2.13 PAYMENT

2.13.0 The payment to the Contractor for the supply and execution of works under the contract will be made by the "PURCHASER" as per the guidelines & conditions

specified herein and on clearance of "CONSULTANT". The final payment will be made on completion of all the Works and on fulfillment by the Contractor of all his liabilities under the contract.

2.13.1 Mode of Payment: All the payments of advance(s) of the contract including payments for supply/erection, taxes and duties (wherever admissible), inland transportation (including port handling), insurance and erection portion, test charges, if any, shall be made direct to the Contractor.

2.13.2 The payments linked with the dispatch of materials shall only be made after production of all dispatch documents as specified in the relevant contract conditions which will inter-alia include the Inspection Certificate issued by the Purchaser's representative. If inspection is waived by the Purchaser, the waiver certificate shall be issued to the contractor.

2.13.3 Payment Terms

- 10% against approval of Drawing and Specification and submission of Advance Bank Guarantee In Format enclosed in annexure C
- 40 % against Supply of Material
- 30% against Successful Commissioning and Connecting to Grid.
- 15% on Trouble free operation for Three Months
- 5% will be held with us as security deposit for 5 years and could be released after submission of performance Bank Guarantee from any Nationalized/scheduled/commercial Bank.

2.14 STATUTORY REGULATIONS

VENDOR shall bear the entire responsibility, liability and risk relating to coverage of workforce under different statutory regulations including workman's compensation Act, EPF Act, ESI Act Factories Act 1948, the contract Labour (Regulation and Abolition)Act 1970, and any other relevant regulations as the case may be. Bidder shall also be solely responsible for the payment of all benefits such as provident fund, bonus, Retrenchment Compensation, Leave etc. Applicable as per the various statutory regulations and shall keep the companies indemnified in this regard against any claim. The Purchaser shall be entitled to if necessary, make such payment and recover the amount thereof from the money due to vendor from the companies or recover the same as debt from vendor.

2.15 STATUTORY VARIATION

Indian taxes, duties and levies as per law, on transactions between the Contractor or his nominee/ assignee and the Purchaser shall be borne by the Purchaser including any variation thereof due to enactment of new laws after the date of opening of bids. The Purchaser does not accept any other liability whatsoever on account of changes in policies/ regulations of the Government of India or any State Government of India, except those under Explosives Act which shall be discussed and settled mutually.

Purchaser shall not be liable for any taxes, etc., on items to be supplied in the case of any delay on the part of the supplier beyond the agreed scheduled period of

completion and shall be paid by the supplier himself in the case of any excess payable by the corporation due to delay on the part of Contractor.

2.16 Force Majeure

2.16.0 Force majeure is herein defined as cause which is beyond the control of Contractor or the purchaser as the case may be which they could not foresee or with areas on cable amount of diligence could not have foreseen and which substantially affects the performance of the contract, Such as

a) Natural Phenomena, including but not limited to floods, droughts, earthquakes and epidemics;

b) Act of any government, domestic or foreign, including but not limited to war, declared or undeclared, priorities, quarantines, embargoes.

c) Illegal strikes and legal lockouts provided either party shall within fifteen (15) days from the occurrence of such a cause notify the other in writing of such causes.

2.16.1 The contractor or the purchase shall not be liable for delays in performing his obligations resulting from any force majeure cause as referred to and /or defined above. The date of completion will, subject to hereafter provided, be extended by a reasonable time even through such cause may occur after contractor's performance of obligation has been delayed for other causes.

2.16.2 Although the time for completion of works shall be suitably extended as indicated as per 2.16.1 above, however, such extension shall not result in any financial claim of contract or against the purchaser on any account whatsoever.

PART B

Pre-qualification Requirement

Sl. No	Minimum Eligibility Criteria	Documents Required to be uploaded
1	Bidder should be company incorporated under Companies Act, 1956 or 2013 including any amendments thereof. In Case, bidder is consortium/ Joint Venture firm of two companies, both members of Consortium/JV should be registered individually in India under companies Act 1956 or 2013 including any amendments thereof. Note: Any Kind of Proprietorship firms are not allowed.	Certificate of incorporation issued under Indian companies Act 1956 or 2013 from registrar of companies to be submitted. Copy of PAN and GST Certificate to be enclosed.
	Financial Eligibility Criteria	
2	Bidder must have executed grid connected Roof top/ground mounted solar power plant of Single order value of above Rs 50 lakhs (Rupees Fifty Lakhs only)	One Single purchase (work/supply) order with value above Rs 50 lakhs to be uploaded.
	Technical Eligibility Criteria	
3	The Bidder should have successfully designed, supplied, installed and commissioned grid connected roof top/ ground mounted solar PV power plant of capacity above 85 KWp.	Copy of single work order and satisfactory performance certificate for successful operation for 2 years from customer shall be uploaded.
4	Confirmation for Service and spare support for 25 Years	Self declaration letter to be uploaded for Manufacturing Companies. If dealer/Channel partner vendor to upload the confirmation letter from the Manufacture.

PART C

1. Introduction

1.0 In grid-connected solar photo-voltaic (PV) systems with gross-metering all solar energy is fed into to the public electricity grid. In grid-connected solar photo-voltaic (PV) systems with net-metering, the solar energy feeds the building loads with the surplus energy, if any, being fed into the grid of the distribution licensee. For gross-metering systems an additional meter for measuring solar energy generation is installed alongside the existing service connection meter (if there is an existing consumer service connection). For net-metering systems, the existing service connection meter is replaced with a bidirectional energy meter (if the existing meter is not a bidirectional meter).

1.1 A grid-connected solar PV system consists of the solar panels, solar panels mounting structure, one or more solar grid inverters, circuit breakers, protection devices, meters, interconnection cables and switches.

1.2 Components and parts used in solar PV systems should conform to the BIS or IEC or other international specifications, wherever such specifications are available and applicable.

1.3 The scope of work for the prospective Installer includes:

a) Scope of work covers Design, Supply, and Installation & Commissioning of Grid Connected SPV Roof top Plant under Net Metering as per the technical specification enclosed.

b) Wiring up to Net Metering Board from SVP Rooftop system will be in the scope of the successful bidder(s). The total cable length for every Solar power panel installed shall be in the scope of the bidder.

c) Bidder must visit the site before submitting the offer for taking the measurement of site.

d) Mounting Structure within the scope of this tender is for flat RCC roofs.

e) Performance testing of the complete system.

f) The successful bidder will collect firm work order from the PPCL. A copy of Work Order, Invoice, Commissioning report and bill of material has to be submitted to REAP for release of CFA of MNRE/State subsidy and liaison with MNRE, New Delhi for releasing of CFA.

g) The successful bidder shall undertake to supply spares free of cost for the maintenance of the offered items during the warranty period (5 years).

h) A leaflet containing the details of the service centers shall be provided to PPCL.

i) If the operation or use of the system proves to be unsatisfactory during the warranty period (5 years), the installer shall replace the faulty ones or carry out necessary repairs as per the warranty terms and conditions.

j) The successful bidder shall do necessary coordination with concerned agencies like REAP, PED, MNRE and CEIG, as applicable, for procuring necessary approvals on behalf of the Bank. The cost of approvals and bi-

directional meter, CT/PT (if required) shall be borne by the successful bidder only.

k) Contractor is responsible for obtaining the statutory clearances.

2. SERVICE CENTRES

2.1 The successful bidder shall have minimum of one service centre in Tamilnadu or Puducherry.

2.2 The Successful Bidder shall visit the site at least once in a quarter, to attend routine maintenance, during the 5 years warranty period. However, in case of malfunctioning of the system, the tenderer/bidder shall attend for rectification of defects within 3 working days from the date of lodging complaint.

3. Quality and Workmanship

3.1. Solar PV modules are designed to last 25 years or more. It is therefore essential that all system components and parts, including the mounting structures, cables, junction boxes, distribution boxes and other parts also have a life cycle of at least 25 years. Therefore all works shall be undertaken with the highest levels of quality and workmanship. During inspection special attention will be paid to neatness of work execution and conformity with quality and safety norms. No waste from packaging to be left on the site after the completion of work by the prospective Installer. Non-compliant works will have to be redone at the cost of the prospective Installer.

4. Specification of Solar PV Modules

4.1. Solar PV modules shall be of the crystalline silicon type, manufactured in India. Detailed specifications of the solar PV modules are given below:

Type	Crystalline silicon
Origin	Manufactured in India
Efficiency	>= 16%
Fill factor	>= 70%
Degradation warranty	>=90% of design nominal power after 12 years, >=80% of design nominal power after 25 years.
Module frame	Non-corrosive and electrolytically compatible with the mounting structure material
Termination box	Thermo-plastic, IP 66, UV resistant
Blocking diodes	Schottky type Each PV module must contain 3 nos of Bypass diodes
Module minimum rated power	The nominal power of a single PV module shall not be less than 310Wp.

Potential Induced Degradation (PID) Test	Modules with PID testing certificate at following test conditions or better:	
	a) Temperature 65 ± 5°C	
	b) Negative Voltage of 1000 volts	
	c) Relative humidity 70%	
	d) Test period 96 hours	
RF Identification tag for each solar module	Yes. Must be able to withstand environmental conditions and last the lifetime of the solar module.	
RF Identification tag data	a)	Name of the manufacturer of PV Module
	b)	Name of the Manufacturer of Solar cells
	c)	Month and year of the manufacture (separately for solar cells and module)
	d)	Country of origin
	e)	I-V curve for the module
	f)	W_m, I_m, V_m and FF for the module
	g)	Unique Serial No and Model No of the module
	h)	Date and year of obtaining IEC PV module qualification certificate
	i)	Name of the test lab issuing IEC certificate
	j)	Other relevant information on traceability of solar cells and module as per ISO 9000 standard
Power output rating	To be given for standard test conditions (STC). I-V curve of the sample module should be submitted.	
Compliance with standards and codes	IEC 61215 / IS 14286 IEC 61730 Part 1 and 2	
Salt Mist Corrosion Testing	As per IEC 61701	

5. Solar PV Modules Mounting Structure and Civil Works

5.1. The PV modules shall be mounted on fixed metallic structures of adequate strength and appropriate design, which can withstand the load of the modules and high wind velocities. The array structure shall be made of aluminium alloy L-angles and aluminium alloy U-channels.

5.2. Contractor must provide approach to location of PV Modules for easy maintenance.

5.3. Detailed specifications for the mounting structure are given below:

Wind velocity withstanding capacity	150 km / hour
Structure material	Aluminium alloy 6063-T6 with an L-angle profile size of not less than 50 x 50 x 5mm and U-profile channels of not less than 33 x 33 x 3 mm.
Bolts, nuts, fasteners, panel mounting clamps	Stainless steel SS 304
Mounting arrangement for RCC-flat roofs	With removable concrete ballast made of pre-fabricated PCC (1:2:4), M15
Mounting arrangement for metal sheet roofs	Mounting directly on the sheet metal, ensuring stability and wind withstanding capacity, or penetrating the sheet metal and fixing to the sub-structure, ensuring that the roof remains water proof and ensuring stability and wind withstanding capacity.
Mounting arrangement for elevated structures	The elevated structure has to be securely anchored to the supporting surface. Concrete foundations of appropriate weight and depth for elevated structures mounted directly on the ground; Bolted with anchor bolts of appropriate strength for elevated structures mounted on RCC surfaces.
Mounting arrangement for ground installations	With removable concrete ballast made of pre-fabricated PCC (1:2:4), M15; assuring enough ground clearance to prevent damage of the module through water, animals and other environmental factors.
Installation	The structures shall be designed for simple mechanical on-site installation. There shall be no requirement of welding or complex machinery at the installation site.
Minimum distance between roof edge/fence and mounting structure	1 m
Access for panel cleaning and maintenance	All solar panels must be accessible from the top for cleaning and from the bottom for access to the module-junction box.

Panel tilt angle	North – south orientation with a fixed tilt angle depending on the location. The tilting angle range in Karakal will be 10.5 to 11 degrees, south facing.

5.4. The prospective Installer shall specify installation details of the solar PV modules and the support structures with lay-out drawings and array connection diagrams. The work shall be carried out as per approved designs.

5.5. The prospective Installer will undertake any levelling and preparation work necessary to bring both the sites to a condition suitable for installing and operating the solar photovoltaic system. This includes and is not restricted to the following:

a. Provision of gutters for drainage of rain water cleaning water, such that there is no clogging or stagnation of water.
b. Strengthening of RCC roof or truss.
c. RCC wall fencing with gate to ensure security of the SPV system
d. Water pipeline for cleaning of solar panels from the source of water as indicated by the Thirunallar Panchayat till appropriate location in the installation site.

5.6. The prospective Installer will house of solar inverters, charge controllers, monitoring device and other devices in a separate electrical room constructed in RCC for this purpose.

6. Solar Array Fuses

6.1. The cables from the array strings to the solar grid inverters shall be provided with DC fuse protection. Fuses shall have a voltage rating and current rating as required. The fuse shall have DIN rail mountable fuse holders and shall be housed in thermoplastic IP 66 enclosures with transparent covers (see DC combiner box, chapter 9.0).

6.2. The above article 6.1 shall not apply if micro-inverters are used.

7. Solar Grid Inverter

7.1. The solar grid inverter converts the DC power of the solar PV modules to grid-compatible AC power. String inverters or micro inverters shall be used.

7.2. The specification of the solar grid string inverter is given below.

Total output power (AC)	To match solar PV plant capacity while achieving optimum system efficiency (DSP Band inverters to ensure higher efficiency)
Input DC voltage range	As required for the solar grid inverter DC input.
Maximum power point (MPPT) tracking	Yes

Number of independent MPPT inputs	1 or more
Operation AC voltage	Three phase 415V (+ 12.5%, -20%)
Operating Frequency range	47.5 – 52.5 Hz Wile range for grid voltage and frequency parameters
Nominal frequency	50 Hz
Power factor of the inverter	>0.98 at nominal power
Total harmonic distortion	Less than 3%
Built-in Protection	AC high / low voltage; AC high /low frequency / Synchronize loss / Over temperature /
Anti-islanding protection	As per VDE 0126-1-1 / IEC 60255.5 or equivalent standards. Testing as per IEC 62116
Operating ambient temperature range	-10 ^{o}C - +60 ^{o}C
Humidity	0 – 95% Rh
No load losses	Less than 1% of Rated output
Self Commutated IGBT base invertors with pulse width modulation. Invertor on / off Switch to be provided.	

8. Data Logging

8.1. A data-logging device shall be installed, either integrated into the solar grid inverter or as a separate device; such that individual inverters can be monitored Data will be transmitted over the internet at regular intervals of no more than once an hour. Time-integration period of data logging device will be 1 min or lesser. The collected data shall be available in CSV (Comma Separated Value) format. The following data needs to be collected from each inverter and transmitted along with time stamps:

a. Instantaneous DC voltage (V)
b. Instantaneous DC current (A)
c. Instantaneous AC voltage (V)
d. Instantaneous AC current (A)
e. Instantaneous AC frequency (Hz)
f. Instantaneous solar power (kW)
g. PV back surface temperature
h. Ambient Temperature
i. Cumulative solar energy produced (kWh)
j. Cumulative hours of operation (h)

9. DC String Combiner Box

9.1. A DC string combiner box shall be used to combine the DC cables of the solar module strings with DC fuse protection for the outgoing DC cable(s) to the DC

Distribution Box. The DC string combiner box shall be of the thermoplastic IP65 DIN-rail mounting type with transparent cover.

9.2. A DC string combiner box is not required if micro inverters are used.

10. DC Distribution Box

10.1. A DC distribution box shall be mounted close to the solar grid inverter. The DC distribution box shall be of the thermo-plastic IP65 DIN-rail mounting type and shall comprise the following components and cable terminations:

a. Incoming positive and negative DC cables from the DC string combiner box;
b. DC circuit breaker, 2 pole (the cables from the DC string combiner box will be connected to this circuit breaker on the incoming side);
c. DC surge protection device (SPD), class 2 as per IEC 60364-5-53;
d. Outgoing positive and negative DC cables to the solar grid inverter.

10.2. As an alternative to the DC circuit breaker a DC isolator may be used inside the DC Distribution Box or in a separate external thermoplastic IP 65 enclosure adjacent to the DC Distribution Box. If a DC isolator is used instead of a DC circuit breaker, a DC fuse shall be installed inside the DC Distribution Box to protect the DC cable that runs from the DC Distribution Box to the Solar Grid Inverter.

10.3. A DC Distribution box is not required if micro inverters are used.

11. AC Distribution Box

11.1. The AC distribution box shall be of the thermo plastic IP65 DIN rail mounting type and shall comprise the following components and cable terminations:

a. Incoming 3-core / 5-core (three-phase) cable from the solar grid inverter(s)
b. AC circuit breaker, 2-pole / 4-pole
c. AC surge protection device (SPD), class 2 as per IEC 60364-5-53
d. Outgoing cable to the grid interconnection point (in the case of gross metering) or a dedicated module of a switch board / distribution board of the building (in the case of net-metering).

11.2. In the case of solar grid string inverters, the AC distribution board shall be installed close to the solar grid string inverter.

11.3. If micro-inverters are used the AC cable from the micro-inverters shall be connected to the incoming AC circuit breaker of the AC distribution board.

11.4. If more than one AC cable is used to connect the micro-inverters to the AC part of the system, each such cable shall have a separate incoming AC circuit breaker.

12. Cables

12.1. All cables shall be supplied conforming to IEC 60227 / IS 694 & IEC 60502 / IS 1554. Voltage rating: 1100V AC, 1800V DC

12.2. For the DC cabling, XLPO / XLPE insulated and sheathed, UV stabilised single core flexible copper cables shall be used. Multi-core cables shall not be used.

12.3. For the AC cabling, PVC or XLPE insulated and sheathed single or multi-core flexible copper cables shall be used. Outdoor AC cables shall have a UV-stabilised outer sheath.

12.4. Cables which are laid directly in the ground shall be of the armoured type and shall be protected with RCC (reinforced cement concrete) slabs.

12.5. Underground cables shall be installed at a depth of -70cm from the finished ground level.

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

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

12.8. The DC cables from the SPV module array shall run through a UV-stabilised PVC conduit pipe of adequate diameter with a minimum wall thickness of 1.5mm.

12.9. Cables and wires used for the interconnection of solar PV modules shall be provided with solar PV connectors and couplers.

12.10. All cables and conduit pipes shall be clamped to the rooftop, walls and ceilings with thermo-plastic clamps at intervals not exceeding 50 cm.

12.11. The minimum DC cable size shall be 4.0 mm2 copper. The minimum AC cable size shall be 4.0 mm2 copper. In three phase systems, the size of the neutral wire size shall be equal to the size of the phase wires.

12.12. The following colour coding shall be used for cable wires:

a. DC positive: red (the outer PVC sheath can be black with a red line marking)
b. DC negative: black
c. AC single phase: Phase: red; neutral: black
d. AC three phase: Phases: red, yellow, blue; neutral: black
e. Earth wires: green

12.13. Cables and conduits that have to pass through walls or ceilings shall be taken through a PVC pipe sleeve.

12.14. Cable conductors shall be terminated with tinned copper end-ferrules to prevent fraying and breaking of individual wire strands. The termination of the DC and AC cables at the Solar Grid Inverter shall be done as per instructions of the manufacturer, which in most cases will include the use of special connectors.

12.15. All cables shall run through corrosion proof cable ducts or on cable trays such that the cables are protected from mechanical damage.

12.16. All cable shall be installed such that there is future access for maintenance, repair and replacement.

13. Lighting Arrestor

13.1. The Lighting Arrestor will be Early Streamer Emission type.

13.2. Lighting rod must be made of Stainless steel, corrosive resistance, and easy to install.

13.3. **No external Power Supply is required.**

13.4. **Guarantee of electrical continuity and operation after lightning strike, in any atmospheric conditions.**

14. Earthing

14.1. The PV module structure components shall be electrically interconnected and shall be grounded.

14.2. Earthing shall be done in accordance with IS 3043-1986, provided that earthing conductors shall have a minimum size of 6.0 mm2 copper, 10 mm2 aluminium or 70 mm2 hot dip galvanised steel. Unprotected aluminium or copper-clad aluminium conductors shall not be used for final underground connections to earth electrodes.

14.3. A minimum of two separate dedicated and interconnected earth electrodes must be used for the earthing of the solar PV system support structure with a total earth resistance not exceeding 5 Ohm.

14.4. The earth electrodes shall have a precast concrete enclosure with a removable lid for inspection and maintenance. The entire earthing system shall comprise non-corrosive components.

15. Surge Protection

15.1. Surge protection shall be provided on the DC side and the AC side of the solar system.

15.2. The DC surge protection devices (SPDs) shall be installed in the DC distribution box adjacent to the solar grid inverter.

15.3. The AC SPDs shall be installed in the AC distribution box adjacent to the solar grid inverter.

15.4. The SPDs earthing terminal shall be connected to earth through the above mentioned dedicated earthing system.

15.5. The SPDs shall be of type 2 as per IEC 60364-5-53

16. Junction Boxes

16.1. Junction boxes and solar panel terminal boxes shall be of the thermo plastic type with IP 66 protection for outdoor use and IP 54 protection for indoor use.

16.2. Cable terminations shall be taken through thermo-plastic cable glands. Cable ferrules shall be fitted at the cable termination points for identification.

17. Tools, Tackles and Spares

17.1. The prospective Installer shall keep ready stock of tools, tackles and essential spares that will be needed for the day-to-day maintenance of the solar PV system. This shall include but not be limited to, the following:

a. Screw driver suitable for the junction boxes and combiner boxes;
b. Screw driver and / or Allen key suitable for the connectors, power distribution blocks, circuit breaker terminals and surge arrestor terminals;
c. Spanners / box spanners suitable for the removal of solar PV modules from the solar PV module support structure;
d. Solar panel mounting clamps;
e. Cleaning tools for the cleaning of the solar PV modules;
f. Spare fuses

18. Metering

18.1. For Gross Metering systems: A bidirectional energy meter to measure the gross energy fed into the grid of the distribution licensee (the "Gross Feed-in Energy Meter") shall be installed at the distribution licensee side of the interconnection point with the grid. Installation of the Gross Feed-in Energy Meter will be carried out by the distribution licensee or as directed by the distribution licensee. The Gross Feed-in Energy Meter shall have an accuracy class of 0.5. A bidirectional energy meter has been specified for the gross energy feed-in so that system self-consumption, if any, is recorded and accounted for.

18.2. For Net Metering systems: The existing service connection energy meter is to be replaced by the distribution licensee with a bidirectional energy meter of the same accuracy class as the existing service connection meter. If the exiting service connection energy meter is already programmed for bidirectional energy recording there will be no need of replacing the meter.

18.3. Optionally an energy meter to measure the gross solar energy produced by the solar PV system may be installed immediately after the AC distribution box.

18.4. **Annexure A** contains typical single line diagrams for gross metering and net metering with string inverters.

19. TRANSFORMER "IF REQUIRED":

a. Dry/oil type relevant kVA, 11kV/415V, 50 Hz Step up along with all protections, switchgears, Vacuum circuit breakers, cables etc. along with required civil work. (in this case Not Applicable).
b. The bidirectional electronic energy meter as per the statutory requirements of DISCOMs shall be installed for the measurement of import/Export of energy. (getting statutory requirements and installation of bi-directional meter is installer scope with free of cost)
c. The bidder must take approval/NOC from the Concerned DISCOM for the connectivity, technical feasibility, and synchronization of SPV plant with

distribution network and submit the same to NREDCAP/ REAP before commissioning of SPV plant.

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

20. Documentation

The prospective Installer shall supply the following documentation:

a. System description with working principles;
b. System single line diagrams;
c. Solar PV array lay-out;
d. Routing diagram of cables and wires;
e. Data sheets and user manuals of the solar PV panels and the solar grid inverter(s);
f. A system operation and maintenance manual;
g. Name, address, mobile number and email address of the service centre to be contacted in case of failure or complaint;
h. Warranty cards;
i. Maintenance registers.

21. Test Certificates and Reports

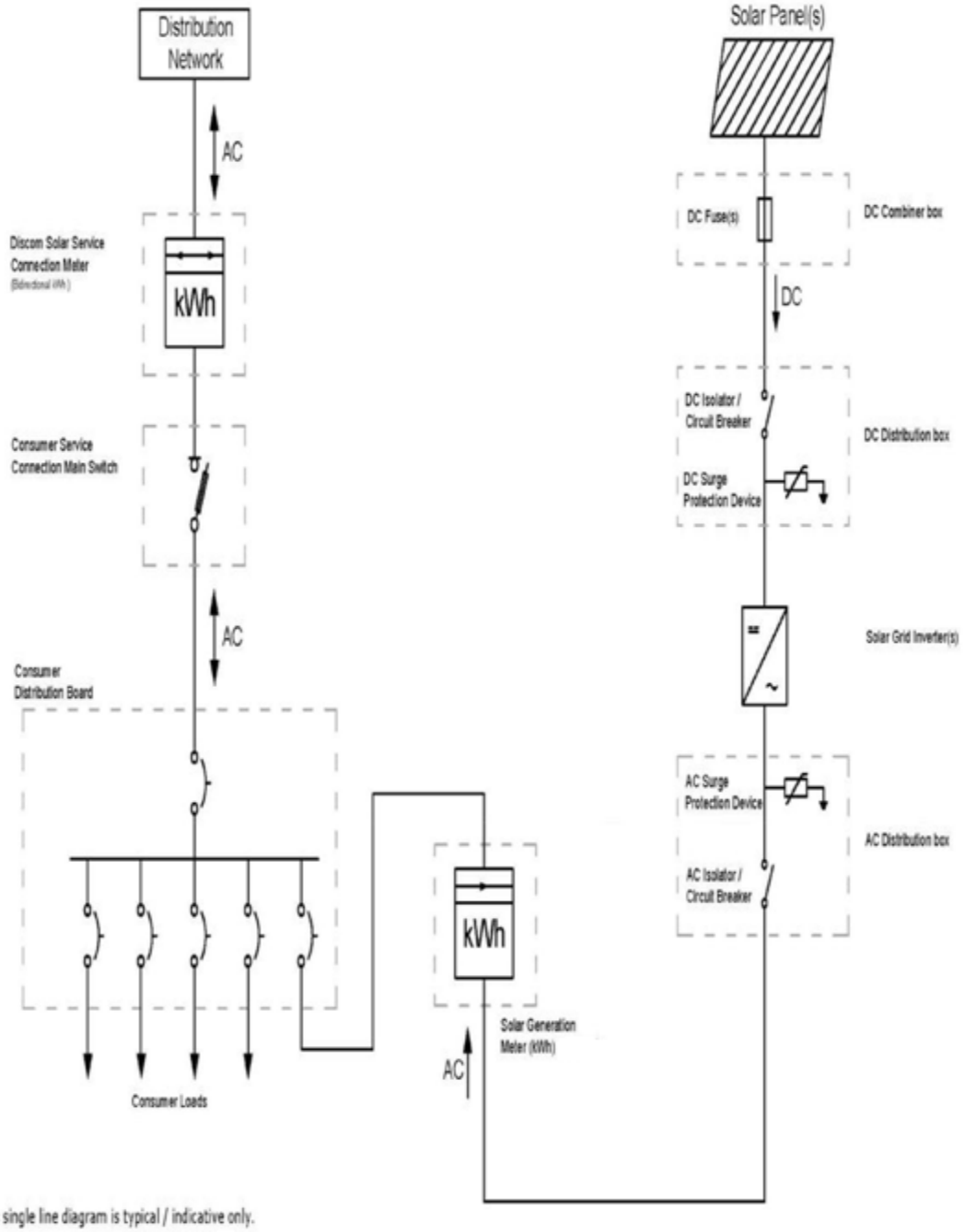
Type Test Certificates shall be provided for the solar modules and the solar grid inverters to provide evidence of compliance with standards as specified this Technical Specification. Client reserves the right to ask for additional test certificates or (random) tests to establish compliance with the specified standards.

22. CONFIRMATION TO MNRE TECHNICAL SPECIFICATIONS AND STANDARDS

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

Annexure A

Typical Single Line Diagram of Grid-connected Solar PV System with Net-Metering - String Inverter



Notes

1. This single line diagram is typical / indicative only.

ANNEXURE - B

Annexure – B

Proforma of Bank Guarantee for Contract Performance

Date:
Guarantee No:
Name of Contract:

To

The Executive Officer (Temples)
Sri Dharbaranyeswaraswamy Devasthanam.,
Thirunallar,
Karaikal – 609 602

WHEREAS Sri Dharbaranyeswaraswamy Devasthanam, a Govt. of Puducherry Undertaking having its Thirunallar, Karaikal – 609 607. (Hereinafter referred to as the "Purchaser" which expression shall unless repugnant to the context include its successors, executors, administrators, legal representatives and assigns) is installing a 85 KWp on grid Solar power plant at Sri Dharbaranyeswaraswamy Temple, Thirunallar in the Karaikal region, Union Territory of Puducherry.

WHEREAS the Purchaser has placed a Letter of Intent No.:…….. ……. dated…… on M/s. ……..…. registered in India under the Companies Act, 1956, having its Registered Office …….. (Hereinafter referred to as "the Contractor") for Installing of the said 85 KWp on grid Solar power plant on the terms, specifications and conditions specified therein, which has been unequivocally accepted by the Contractor.

AND WHEREAS in conformity with the provisions of Clause ……. of the said CONTRACT, the Contractor has agreed to furnish a Bank Guarantee for an amount equivalent to 5% of the Contract Price i.e. `. ……..* for the Timely Completion and faithful execution of the Contract and successful completion of the performance guarantee tests of 85 KWp on grid Solar power plant to demonstrate the guaranteed values.

AND WHEREAS the Purchaser has agreed to accept a Bank Guarantee for `……. from …….. Bank having its Head Office at …….. through its Branch ……. (Hereinafter referred to as "the Bank" which expression shall unless repugnant to the context include its successors and assigns).

In consideration of the above, the BANK hereby unconditionally guarantees and undertakes as a direct responsibility, to pay to the Purchaser on demand any and all money payable by the Contractor to the extent of `…….. Without any demure, reservation, recourse, contest or protest and / or without reference to the Contractor.

Any such demand made by the Purchaser on Bank shall be conclusive and binding notwithstanding any difference between Purchaser and the Contractor or any dispute pending before any Court, Tribunal, Arbitrator or any other authority. The bank undertake not to revoke this guarantee herein contained and shall continue to be enforceable till the Purchaser discharge this guarantee.

The decision of the Purchaser as to whether the Contractor has fulfilled its obligation or not under the Contract shall be final and binding on the Bank and the Contractor.

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

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

This Guarantee shall be valid for a period of ……+ months/days from …….. i.e. upto …… The Guarantee herein contained shall be a continuing Guarantee and shall not be affected by any change in the constitution of the Bank or of the Contractor. This Guarantee shall be in addition to and shall not affect or be affected by any other security now or hereafter held by the Purchaser and Purchaser at its discretion and without any further consent from the BANK and without affecting the liability of "the Bank" and other indulgence to or make other arrangements with the Contractor and nothing done or omitted to be done by the Purchaser in pursuance of any authority contained in this guarantee shall affect or discharge the liability of the BANK.

NOTWITHSTANDING anything herein before above contained, the liability of the BANK under this Guarantee shall be restricted to `…… and the Guarantee shall expire on the …… Day of ……. Unless a suit or action to enforce a claim under the Guarantee is filed against us within the date of expiry i.e. on or before …… all rights under the said Guarantee shall be forfeited and we shall be relieved and discharged from all liabilities there under.

This Bank Guarantee shall be revalidated automatically till the Contract Performance Guarantee is extended.

IN WITNESS WHEREOF we have set our hands and seal hereunder at this ……. day of …….. ……. at …….

WITNESS

(Signature) …… (Signature) ……..

(Name) …… (Banker's rubber Stamp) ……

(Official address) (Designation with Bank)
Stamp) ……

Attorney as per Power of
Attorney No. ……...

Dated ……..

Notes:

***** This sum shall be Five percent (5%) of the Contract Price.

\+ The date will be sixty (60) days after the completion of Warranty period as specified in the Contract.

The stamp papers of appropriate value shall be purchased in the name of Bank issuing the Guarantee.

ANNEXURE-C

Annexure – C

Proforma of Bank Guarantee for Advance Payment

Date:
Guarantee No:
Name of Contract:

To

The Executive Officer (Temples)
Sri Dharbaranyeswaraswamy Devasthanam.,
Thirunallar,
Karaikal – 609 607

WHEREAS Sri Dharbaranyeswaraswamy Devasthanam, a Govt. of Puducherry Undertaking having its Thirunallar, Karaikal – 609 607. (Hereinafter referred to as the "Purchaser" which expression shall unless repugnant to the context include its successors, executors, administrators, legal representatives and assigns) is installing a 85 KWp on grid Solar power plant at Sri Dharbaranyeswaraswamy Temple, Thirunallar in the Karaikal region, Union Territory of Puducherry.

WHEREAS the Purchaser has placed a Letter of Intent No.:…….. ……. dated……. on M/s. ……..…. registered in India under the Companies Act, 1956, having its Registered Office …….. (Hereinafter referred to as "the Contractor") for installing of the said 85 KWp on grid Solar power plant on the terms, specifications and conditions specified therein, which has been unequivocally accepted by the Contractor.

AND WHEREAS in conformity with the provisions of Clause ……. of the said CONTRACT, the Contractor has agreed to furnish a Bank Guarantee for an amount equivalent to the initial advance payment (Advance Payment) extended by the Purchaser to the contractor for the faithful execution of the contract in terms of Part A Clause 2.13.

AND WHEREAS the Purchaser has agreed to accept a Bank Guarantee for `……. from …….. Bank having its Head Office at …….. through its Branch …….. (Hereinafter referred to as "the Bank" which expression shall unless repugnant to the context include its successors and assigns).

In consideration of the above, the BANK hereby unconditionally guarantees and undertakes as a direct responsibility, to pay to the Purchaser on demand any and all money payable by the Contractor on account of Advance payment extended by the Purchaser to the without any demure, reservation, recourse, contest or protest and / or without reference to the Contractor.

Any such demand made by the Purchaser on Bank shall be conclusive and binding notwithstanding any difference between Purchaser and the Contractor or any dispute

pending before any Court, Tribunal, Arbitrator or any other authority. The bank undertake not to revoke this guarantee herein contained and shall continue to be enforceable till the Purchaser discharge this guarantee.

The decision of the Purchaser as to whether the Contractor has fulfilled its obligation or not towards set off of Advance Payment extended by the Purchaser to the Contractor shall be final and binding on the Bank and the Contractor.

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

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

This Guarantee shall be valid for a period of ……+ months/days from …….. i.e. up to …… The Guarantee herein contained shall be a continuing Guarantee and shall not be affected by any change in the constitution of the Bank or of the Contractor. This Guarantee shall be in addition to and shall not affect or be affected by any other security now or hereafter held by the Purchaser and Purchaser at its discretion and without any further consent from the BANK and without affecting the liability of "the Bank" and other indulgence to or make other arrangements with the Contractor and nothing done or omitted to be done by the Purchaser in pursuance of any authority contained in this guarantee shall affect or discharge the liability of the BANK.

NOTWITHSTANDING anything herein before above contained, the liability of the BANK under this Guarantee shall be restricted to `…… being the amount of advance Payment extended by the Purchaser to the Contractor and the Guarantee shall expire on the …….. Day of ……. Unless a suit or action to enforce a claim under the Guarantee is filed against us within the date of expiry i.e. on or before …….. all rights under the said Guarantee shall be forfeited and we shall be relieved and discharged from all liabilities there under.

The Bank undertakes not to revoke this Guarantee during its currency except with the previous consent of the Purchaser in Writing.

IN WITNESS WHEREOF we have set our hands and seal hereunder at this ……. day of …….. ……. at ……..

WITNESS

(Signature) ……. (Signature) ……..

(Name) ……. (Banker's rubber Stamp) ……

(Official address) (Designation with Bank)
Stamp) ……

Attorney as per Power of
Attorney No. ……...

Dated ……..

Notes:

***** This sum shall be Ten percent (10%) of the Contract Price.

\+ The date will be Sixty (60) days after the completion of Warranty period as specified in the Contract.

The stamp papers of appropriate value shall be purchased in the name of Bank issuing the Guarantee.