



TAMIL NADU GENERATION AND DISTRIBUTION CORPORATION LIMITED

**SPECIFICATION FOR SUPPLY, ERECTION,
TESTING, COMMISSIONING &
MAINTENANCE FOR 3years ROOF TOP LT GRID
CONNECTED
SOLAR PLANT 22KW AT
KARUR ELECTRICITY DISTRIBUTION CIRCLE**

**THROUGH
E-TENDERING.
(Through NIC Platform)**

Spec.No.08/2020-21 dt.27.8.2020

**OFFICE OF THE SUPERINTENDING ENGINEER
KARU ELECTRICITY DISTRIBUTION CIRCLE,
KARUR
TAMIL NADU.**

Instructions for Online Bid Submission:

The bidders are required to submit soft copies of their bids electronically on the CPP Portal, using valid Digital Signature Certificates. The instructions given below are meant to assist the bidders in registering on the CPP Portal, prepare their bids in accordance with the requirements and submitting their bids online on the CPP Portal.

More information useful for submitting online bids on the CPP Portal may be obtained at: <https://eprocure.gov.in/eprocure/app>.

REGISTRATION

- 1) Bidders are required to enroll on the e-Procurement module of the Central Public Procurement Portal (URL: <https://eprocure.gov.in/eprocure/app>) by clicking on the link "**Online bidder Enrollment**" on the CPP Portal which is free of charge.
- 2) As part of the enrolment process, the bidders will be required to choose a unique username and assign a password for their accounts.
- 3) Bidders are advised to register their valid email address and mobile numbers as part of the registration process. These would be used for any communication from the CPP Portal.
- 4) Upon enrolment, the bidders will be required to register their valid Digital Signature Certificate (Class II or Class III Certificates with signing key usage) issued by any Certifying Authority recognized by CCA India (e.g. Sify / nCode / eMudhra etc.), with their profile.
- 5) Only one valid DSC should be registered by a bidder. Please note that the bidders are responsible to ensure that they do not lend their DSC's to others which may lead to misuse.
- 6) Bidder then logs in to the site through the secured log-in by entering their user ID / password and the password of the DSC / e-Token.

SEARCHING FOR TENDER DOCUMENTS

- 1) There are various search options built in the CPP Portal, to facilitate bidders to search active tenders by several parameters. These parameters could include Tender ID, Organization Name, Location, Date, Value, etc. There is also an option of advanced search for tenders, wherein the bidders may combine a number of search parameters such as Organization Name, Form of Contract, Location, Date, Other keywords etc. to search for a tender published on the CPP Portal.
- 2) Once the bidders have selected the tenders they are interested in, they may download the required documents / tender schedules. These tenders can be moved to the respective 'My Tenders' folder. This would enable the CPP Portal to intimate the bidders through SMS / e-mail in case there is any corrigendum issued to the tender document.

- 3) The bidder should make a note of the unique Tender ID assigned to each tender, in case they want to obtain any clarification / help from the Helpdesk.

PREPARATION OF BIDS

- 1) Bidder should take into account any corrigendum published on the tender document before submitting their bids.
- 2) Please go through the tender advertisement and the tender document carefully to understand the documents required to be submitted as part of the bid. Please note the number of covers in which the bid documents have to be submitted, the number of documents - including the names and content of each of the document that need to be submitted. Any deviations from these may lead to rejection of the bid.
- 3) Bidder, in advance, should get ready the bid documents to be submitted as indicated in the tender document / schedule and generally, they can be in PDF / XLS / RAR / DWF/JPG formats. Bid documents may be scanned with 100 dpi with black and white option which helps in reducing size of the scanned document.
- 4) To avoid the time and effort required in uploading the same set of standard documents which are required to be submitted as a part of every bid, a provision of uploading such standard documents (e.g. PAN card copy, annual reports, auditor certificates etc.) has been provided to the bidders. Bidders can use "My Space" or "Other Important Documents" area available to them to upload such documents. These documents may be directly submitted from the "My Space" area while submitting a bid, and need not be uploaded again and again. This will lead to a reduction in the time required for bid submission process.

SUBMISSION OF BIDS

- 1) Bidder should log into the site well in advance for bid submission so that they can upload the bid in time i.e. on or before the bid submission time. Bidder will be responsible for any delay due to other issues.
- 2) The bidder has to digitally sign and upload the required bid documents one by one as indicated in the tender document.
- 3) Bidder has to select the payment option as "offline" to pay the tender fee / EMD as applicable and enter details of the instrument.
- 4) Bidder should prepare the EMD as per the instructions specified in the tender document. The original should be posted/couriered/given in person to the concerned official, latest by the last date of bid submission or as specified in the tender documents. The details of the DD/any other accepted instrument, physically sent, should tally with the details available in the scanned copy and the data entered during bid submission time. Otherwise the uploaded bid will be rejected.

- 5) Bidders are requested to note that they should necessarily submit their financial bids in the format provided and no other format is acceptable. If the price bid has been given as a standard BoQ format with the tender document, then the same is to be downloaded and to be filled by all the bidders. Bidders are required to download the BoQ file, open it and complete the white coloured (unprotected) cells with their respective financial quotes and other details (such as name of the bidder). No other cells should be changed. Once the details have been completed, the bidder should save it and submit it online, without changing the filename. If the BoQ file is found to be modified by the bidder, the bid will be rejected.
- 6) The server time (which is displayed on the bidders' dashboard) will be considered as the standard time for referencing the deadlines for submission of the bids by the bidders, opening of bids etc. The bidders should follow this time during bid submission.
- 7) All the documents being submitted by the bidders would be encrypted using PKI encryption techniques to ensure the secrecy of the data. The data entered cannot be viewed by unauthorized persons until the time of bid opening. The confidentiality of the bids is maintained using the secured Socket Layer 128 bit encryption technology. Data storage encryption of sensitive fields is done. Any bid document that is uploaded to the server is subjected to symmetric encryption using a system generated symmetric key. Further this key is subjected to asymmetric encryption using buyers/bid openers public keys. Overall, the uploaded tender documents become readable only after the tender opening by the authorized bid openers.
- 8) The uploaded tender documents become readable only after the tender opening by the authorized bid openers.
- 9) Upon the successful and timely submission of bids (ie after Clicking "Freeze Bid Submission" in the portal), the portal will give a successful bid submission message & a bid summary will be displayed with the bid no. and the date & time of submission of the bid with all other relevant details.
- 10) The bid summary has to be printed and kept as an acknowledgement of the submission of the bid. This acknowledgement may be used as an entry pass for any bid opening meetings.

ASSISTANCE TO BIDDERS

- 1) Any queries relating to the tender document and the terms and conditions contained therein should be addressed to the Tender Inviting Authority for a tender or the relevant contact person indicated in the tender.
- 2) Any queries relating to the process of online bid submission or queries relating to CPP Portal in general may be directed to the 24x7 CPP Portal Helpdesk.

TAMIL NADU GENERATION AND DISTRIBUTION CORPORATION LTD.

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| 1) Tender Specification No. | Spec NO M.08 /2020-21 Dt.27.8.2020 |
| 2) Name of the work | E-tender for Supply, Erection, Testing, Commissioning and Maintenance for 3 years of Roof top LT Grid connected solar plant of 22KW at Pugalur 230KV SS |
| 3) Quantity | Roof top LT Grid connected solar plant 1. AT Puagalur 230KV SS Building: 22KWp -1 set |
| 4) Method of Tender | e-Tender System (Online Part I - Techno-Commercial Bid and Part II - Price Bid and Through M/s. NIC) |
| 5) (a) Earnest Money Deposit (EMD Or (b) Permanent EMD (I) Rs.10,00,000/- (II) Rs.20,00,000/- (III) Rs.50,00,000/- | Rs.15000/ (Rupees Fifteen thousand only) Tender Value Up to Rs.10,00,00,000/- (Up to Rs.50,00,00,000/- All tenders exceeding Rs.50,00,00,000/-. |
| 6) URL for online bid submission for e-tender | https://tntenders.gov.in |
| 7) Last date for submission of EMD | 12.00 on 10.9.20 (Demand Draft/Bankers Cheque towards EMD (or) the proof of Permanent EMD Holder (or) SSI Registration certificate with original undertaking in lieu of EMD and as per clause 13&14 of Section -I to be received at the office of the SE/KEDC /KARUR before 12.00 hrs on the date of closing of submission of e-tender |
| 8) Date of closing of online e-tender for submission of Techno Commercial Bid & Price Bid. | 10.9.2020 @ 14:00 Hrs |
| 9) Date & time of opening of tender electronically | 11.9.2020 @ 15.00 Hrs |
| 10) Specification at website | The tender specification will be placed at TN Govt. Website (www.tntenders.gov.in) The prospective bidder may download the same. |
| 11) Documents to be uploaded by the Tenderers during e-submission | Schedules A to F and Annexure I, II, III&IV and other documents whichever is applicable |
| 13) Clarification to be sought for from | SUPERINTENDING ENGINEER/KEDC/KARUR |
| 14) Place at which tenders will be opened | O/o SUPERINTENDING ENGINEER/KEDC/KARUR |

Sd:24.08.2020/-
SUPERINTENDING ENGINEER
KEDC/KARUR.

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SECTION – I

EARNEST MONEY DEPOSIT

- 1) Tenderer should pay the specified amount towards Earnest Money Deposit as follows: Earnest Money Deposit : **Rs.15, 000** /- (Rupees Fifteen Thousand only)
- 2) The Earnest Money Deposit specified above should be a DEMAND DRAFT/ BANKER'S CHEQUE of RTGS for the above amount from any of the Nationalised/ scheduled / Foreign Banks with branches in India payable to the Superintending Engineer/TANGEDCO LTD/KEDC/KARUR payable at KARUR. The DEMAND DRAFT/ BANKER'S CHEQUE should be received at Office of Superintending Engineer/KEDC/Karur **on or before 12:00 Hrs on 10.9.2020.**
- 3) The Tenderers who are having valid Permanent EMD with TNEB/TANGEDCO for an amount of Rs.10,00,000/- (Rupees Ten lakhs only) and above are exempted from payment of Earnest Money Deposit and are eligible to participate in the tender.

The existing PEMD holder for Rs.10,00,000/- are eligible to participate in the tender only for the value of tenders not exceeding Rs.10 Crores. The existing PEMD holder for Rs.5,00,000/- are not eligible for participating in the tender unless they pay the differential amount for the new PEMD slab.

If the Tenderer desires to become a Permanent E.M.D. holder, he is advised to deposit the required amount with the TANGEDCO as Permanent E.M.D well in advance, obtain a certificate from the Financial Controller/Purchase and upload copy of the same along with the tender.

- 4) The EMD will not carry any interest.
- 5) The Earnest Money Deposit will be refunded to the unsuccessful tenderers on application to the Superintending Engineer/KEDC/Karur after intimation of the rejection/ non-acceptance of their tender is sent to them.
- 6) **Cheques will not be accepted towards EMD and the tenders shall be rejected if EMD is not paid in the prescribed manner.**
- 7) (i) The following categories of Industries are exempted from payment of EMD:
 - a) The Small Scale Industrial Units located within the State and Registered with the Tamil Nadu Small Industries Development Corporation.
 - b) The Small Scale Industrial Units Registered with the National Small Industries Corporation.
 - c) The SSI Units holding Acknowledgement issued for Entrepreneur Memorandum Part-II obtained from the District Industries Centre in respect of those items for which the Registration Certificate/

Acknowledgement has been issued.

- d) Departments of the Government of Tamil Nadu.
 - e) Undertakings and Corporations owned by the Government of Tamil Nadu.
 - f) Labour Contract Co-operative Societies.
 - g) Tiny Industries classified under S.S.I. registered with the State of Tamil Nadu and registration Certificate issued by the Department of Industries and Commerce/ Government of Tamil Nadu in respect of those items for which the Registration Certificate
 - h) Small Scale Industrial Units located outside the State and such of those units registered with National Small Industries Corporation in respect of the those items covered under Registration Certificate.
- 8) (ii) SSI units having provisional registration certificate are not eligible for exemption.
- 9) Those tenderers who are exempted from payment of EMD shall upload in lieu of EMD an undertaking in a non-judicial Stamp paper of value not less than Rs.80/- (Rupees Eighty only) in the form as per Annexure-I to the effect to pay as penalty an amount equivalent to EMD in the event of non-fulfillment or non-observance of any of the conditions stipulated in the contract consequent to such breach of contract. The State Government, Public Sector Undertakings who are exempted from payment of EMD/Security Deposit should also pay as penalty an amount equivalent to the amount fixed as Security Deposit in the event of non-fulfillment or non-observance of any of the conditions stipulated in the contract.
- 10) Conditions for Liable for rejection of bids:
- a) TENDERS RECEIVED WITHOUT THIS UNDERTAKING WILL BE DISQUALIFIED.
 - b) Tender will be rejected if the undertaking is not signed /authenticated in all pages of undertaking.
 - c) Signature of witnesses should be affixed at the end of undertaking alongwith details of name and address.
- 11) Small Scale Industries registered with the Tamil Nadu small Industries Development Corporation or with National Small Industries Corporation or holding **Entrepreneur Memorandum Part-II or acknowledgement for the Entrepreneur Memorandum Part-II** issued by DIC, for small scale industrial unit for subject materials specifying capacity for which they are permitted to manufacture and the period of validity of the certificate shall upload attested Photo copy of Registration Certificate/ Acknowledgement as proof of eligibility for exemption from payment of EMD.
- 12) Others viz. Central and other State Government Departments/ Undertakings and Corporations other than those in Tamil Nadu shall have to pay Earnest Money Deposit and Security Deposit.
- 13) The tenderers shall upload the audited attested copy of Profit and Loss Account /Balance Sheet along with the proof for exemption from payment of

EMD in order to ensure the SSI status of the firm based on the investment held in Plant and Machinery for extending exemption from paying EMD as per MSME notification No.S.O.2119(E) DATED 26.6.2020.

- 14) **The following should be uploaded by the Vendor during submission of Techno-commercial bid for payment of EMD failing which the offer will be SUMMARILY REJECTED.**
- i) **The proof of Permanent EMD Holder.**
 - ii) **The proof of exemption of EMD with an undertaking in lieu of EMD and documents in support of investment held in plant and machinery.**
- 15) Besides online submission of scanned copy of above documents, the **'EMD Cover'** containing **the Original Demand Draft/ Banker's Cheque (or) The proof of Permanent EMD Holder (or) The proof of exemption of EMD in complete shape** i.e. attested copy registration certificate, undertaking in lieu of EMD in a non judicial stamp paper of value not less than Rs. 80.00 and attested audited Profit and Loss account and Balance sheet shall be sent by post /courier in person so as to reach the Office of the Superintending Engineer/KEDC/Karur **before 12.00 hrs on the due date for closing of submission of e-tender .**
- 16) The Earnest Money Deposit/Permanent EMD made by Tenderer will be forfeited after e-tender opening if:
- (a) he withdraws his tender or backs out after acceptance.
 - (b) he withdraws his tender before the expiry of validity period stipulated in the Specification or fails to remit the Security Deposit.
 - (c) he violates any of the provisions of these regulations contained herein.
 - (d) he revises any of the terms quoted during the validity period.
 - (e) in the event of documents furnished with the offer being found to be bogus or the documents contain false particulars, the EMD paid by the tenderers will be forfeited in addition to blacklisting them for future tenders/contracts in TANGEDCO.

SECTION – II
BID QUALIFICATION REQUIREMENTS (BQR)

The Bidders shall become eligible to bid on satisfying the following Bid Qualification Requirements and uploading of the required documentary evidences.

- (i) The bidder shall be a manufacturer /developer /Installer of SPV systems or a system integrator cum EPC contractor having adequate experience in executing LT Grid supported solar power projects in India and had established and commissioned two or more Rooftop solar power plants in India with aggregate capacity of 20 KWp, the minimum plant capacity being 1 KWp (Evidence supported by Contracts and Project completion certificate as per Schedule C annexed).

The bidder should have supplied minimum 1 system of capacity of 5 KWp and above should be in working condition in any one of the buildings for continuous period of 4 years. Necessary proof of work order and performance certificate should be enclosed along with the tender.

- (ii) **The bidder shall submit various purchase order for tendered materials or higher size placed on them by S.E.B./ DISCOMs/Government undertakings/Corporations/any other private or public utility and executed. Copies of such orders shall be enclosed along with the tender.**
- (iii) Annual turnover of the tenderer shall be more than Rs. 5 lakhs during any one of the last three years (ie. 19-20, 18-19, 17-18). In case of bidders who happen to be the companies registered under companies Act-1956, attested copy of Audited financial statements like profit and loss A/c & Balance sheet for the immediately preceding 3 years (ie. 19-20, 18-19, 17-18) may be furnished and in case of others, the Annual turnover certified by the practicing Chartered accountant or attested copy of income tax statements or attested copy of sales tax certificate for **all the 3 years** (ie. 19-20, 18-19, 17-18) may be enclosed as documentary proof to ensure the turnover criteria prescribed in the tender specification.
- (iv) The bidder should be registered with TEDA.

The offers of Tenderers not satisfying above 'BQR' will be summarily rejected.

Note : If the bids are received through consortium, the same will not be considered and the bids will be rejected.

The uploaded documents should not exceed 50Pages

The offer of the bidders who have stated to be previous suppliers to TNEB will be considered for further evaluation, even if they have not enclosed copies of purchase orders, after ensuring with concerned purchase orders placing authorities.

Sd:24.8.2020/-
SUPERINTENDING ENGINEER ,
KEDC/KARUR.

SECTION – III REJECTION OF TENDERS

1.0 REJECTION OF TENDERS

I. Tenders will be **SUMMARILY** rejected if

- a) Original EMD (DD/UNDERTAKING) are not received before the due date and time. Details of DD / any other accepted instruments physically sent do not tally with the scanned copy and the data entered during bid submission and the E.M.D. requirements are not complied with, RTGS may be done challan should be uploaded
- b) If the bids are received through Consortium or Joint venture, the same will not be considered and the bids will be rejected.
- c) Not satisfying any one of the Bid Qualification Requirement items as stipulated in Section II.
- d) The tenderers have not quoted for a **minimum quantity of 10%** of tendered quantity.
- e) If any of the Bidders indicated price in Technical Bid, the bid will not be read out and will be summarily rejected.
- f) **Schedule B to F alongwith proof for BQR, EMD in a cover should reach this office before 2 hours on the due date & time of submission of Tender**

II. Tender is **LIABLE** to be rejected, if it is:

- a) not covering the entire scope of supply of materials.
- b) If the declaration as specified in Schedule D is not signed and enclosed.**
- c) With validity period less than that stipulated in this specification.
- d) Not in conformity with TANGEDCO's Commercial terms and Technical Specifications (Section - V & VI).
- e) Received from a tenderer who is directly or indirectly connected with Government service or Board Service or services of local authority.
- f) From any black listed Firm or Contractor.
- g) Received by Telex / Telegram / E-Mail/ Fax.
- h) From a tenderer whose past performance / Vendor rating is not satisfactory
- i) Not containing all required particulars as per Schedule A to F.
- j) Questionnaire as per schedule-F is not duly filled up and properly signed by the tenderer.
- k) Documents furnished by the Tenderers along with their offer being found to be bogus or contain false particulars.
- l) Received after tender opening.
- m) The offer of bidders who have not furnished the GSTIN Number in the offers.

SECTION – IV

INSTRUCTION TO TENDERERS

- 1.0 Tenders in two part System (a) Technical Bid with commercial terms but **without Price Bid** and (b) Price Bid, will be received through **e-tender** for and on behalf of TANGEDCO herein after referred as TANGEDCO so as to reach on or before the due date prescribed. All the tenders shall be prepared and submitted strictly in accordance with the Instructions set forth herein.

THE TENDERERS WHO DO NOT FULFILL THE "BID QUALIFICATION REQUIREMENTS" AS PER SECTION II NEED NOT APPLY, OFFERS NOT SATISFYING THIS "BID QUALIFICATION REQUIREMENTS" WILL NOT BE CONSIDERED AND WILL BE SUMMARILY REJECTED.

- 1.1 This tender will be processed as per the provision in the Tamil Nadu Transparency in Tender Act 1998 and Tamil Nadu Transparency in Tenders Rules 2000.

2.0. SCOPE OF SUPPLY:

- 1.0. The Scope of supply (described in Schedule-A) includes Supply, Erection, Testing, Commissioning and Maintenance of LT Grid connected solar power plant of 22KW at Pugalur 230/110KV SS
- 2.1. The quantity indicated in schedule of requirement is approximate. The quantity finally ordered may vary to the extent of 25 % either way of the approximate quantity indicated in the Schedule of requirement.

Tamil Nadu Transparency in Tenders Act 1998 and the Tamil Nadu Transparency in Tender Rules 2000 and subsequent amendments thereof are applicable to this Tender.

3.0. SUBMISSION OF TENDER OFFER:

- 3.1. The tenderer is expected to examine all instructions, Schedules and Annexures detailed in the Specification and submit the Schedule of Prices and other required particulars in the Schedules and Annexures called for in this Specification, only as per the formats prescribed herein.

4.0. QUESTIONNAIRE FILLING:

A Questionnaire is appended as Schedule-F in this specification for Bid Qualification Requirements, Commercial and Technical details. It is obligatory on the part of the tenderer to furnish all details as per the "Questionnaire" . In case, this is not filled up and signed at the bottom of each page of the questionnaire and enclosed with the offer, the Bid will be liable for rejection.

4.1. SUBMISSION OF TENDERS:

- 4.1.1. The Tender Offer consisting of Schedules-A to F should be filled up and signed by the Tenderer or any person holding Power of Attorney authorizing him to sign on behalf of the Tenderer before submission of the Tender. The date of signature should invariably be indicated and submitted through on line.
- 4.1.2. In the event of tender being submitted by other than a firm, it must be signed by a partner (copy of partnership deed should be enclosed) and in the event of the absence of any Partner, it shall be signed on his behalf by a person holding a Power of Attorney authorizing him to do so, Certified copies of which shall be enclosed.
- 4.1.3. Tender submitted on behalf of companies registered under the Indian Companies Act, shall be signed by person duly authorized to submit the tender on behalf of the company and shall be accompanied by certified true copies of the resolutions, extracts of the Articles of Association, special or general Power of Attorney etc to show clearly the title, authority and designation of persons signing the tender on behalf of the company.

4.2. Modifications/Clarifications to Tender Documents:

- 4.2.1. At any time after the commencement of e-Tender and before the closing of the event, TANGEDCO may make any changes, modifications or amendments to the tender documents and same will be intimated to the concerned Vendors through corrigendum which can be downloaded from the Vendor login.
- 4.2.2. In case any tenderer asks for a clarification to the tender documents before 48 hours of opening of tenders, the Superintending Engineer/KEDC/Karur will clarify the same.
- 4.2.3. If any tenderer raises clarifications after the opening of the tender, the clarified reply issued by the Superintending Engineer/KEDC/Karur on the clarifications will be final and binding on the Tender.
- 4.3. All tender offers shall be prepared by typing or printing in the formats enclosed with this specification.
- 4.4. All information in the tender offer shall be in ENGLISH only. It shall not contain interlineations, erasures or overwritings except as necessary to correct errors made by the tenderer. Such erasures or other changes in the tender documents shall be attested by the persons signing the tender offer.

4.5. QUOTATION OF RATES:

- 4.5.1. Rates should be quoted figures i.e., integers only in BOQ only.
- 4.5.2. Offers giving lumpsum price, without giving their breakup as per details required in the attached Price Schedule-A shall be liable for rejection.

4.6. PRINTED TERMS AND CONDITIONS IN TENDERS:

Supplier's printed terms and conditions will not be considered as forming part of the tender under any circumstances.

4.7. INCOMPLETE TENDERS:

Tender, which is incomplete, obscure or irregular is liable for rejection.

4.8. AMBIGUITIES IN CONDITIONS OF TENDERS:

In the case of ambiguous or contradictory terms / conditions mentioned in the bid, interpretation as may be advantageous to the purchaser may be taken without any reference to the Tenderer.

4.9. The tender offer shall contain full information asked for in the accompanying schedules and elsewhere in the specification.

4.10. Tenderers shall bear all costs associated with the participation in the e-Tender and the purchaser will in no case be responsible or liable for these costs.

4.11. No offer shall be withdrawn by the Tenderer in the interval between the deadline for submission and the expiry of the period of validity specified / extended validity of the tender offer.

4.12. If the bids are received through Consortium, the same will not be considered and the bids will be rejected. The Tenderers are requested to furnish the exact location of their factories with detailed postal address and pin code, telephone and Fax Nos. etc in their tenders so as to arrange inspection by the TANGEDCO, if considered necessary. **The tenderers are requested to furnish the GST REGISTRATION Nos. in their offer.**

4.13. DESTINATIONS-WHERE MATERIALS ARE REQUIRED:

The prices quoted should be on FOR Destination basis for delivery at Pugalur 230/110KV SS

5.0. TENDER OPENING:

5.1. OPENING OF COMMERCIAL & TECHNICAL BIDS WITHOUT PRICE (PART-I):

The Tender offers except price Bid will be **opened electronically at 11.00 Hrs. on the date notified at the Office of the** Superintending Engineer/KEDC/Karur, through <https://tntenders.gov.in>

5.2. OPENING OF THE PRICE BIDS: (PART - II)

The date and time of opening of Price Bids shall be later notified through registered e-mail to the Bidders who fulfill the BQR criteria and whose bids are found to be commercially and technically acceptable.

6.0. INFORMATION REQUIRED AND CLARIFICATIONS:

- 6.1. In the process of examination, evaluation and comparison of tender offers, the TANGEDCO may at its discretion, ask the Tenderer for a clarification of his offers. All responses to requests for clarifications shall be in e-tender portal only and to the point only. No change in the price or substance of the offer shall be permitted.
- 6.2. The TANGEDCO will examine the tender offers to determine whether they are complete, whether any computational errors have been made, whether required sureties have been furnished, whether the documents have been properly signed and whether the offers are generally in order.
- 6.3. The Tender offers shall be deemed to be under consideration immediately after they are opened and until such time official intimation of award / rejection 6.4. **The** is made by the Tender Accepting Authority to the tenderers.
The Tenderers shall not make attempts to establish unsolicited and unauthorized contact with the Tender Inviting Authority, Tender Accepting Authority or Tender Scrutiny Committee after the opening of the tender and prior to the notification of the award and any attempt by any tenderers to bring to bear extraneous pressures on the Tender Accepting Authority shall be sufficient reason to disqualify the tenderer.
- 6.4. Mere submission of any Tender offer connected with these documents and Specification shall not constitute any agreement. The tenderer shall have no cause of action or claim, against the TANGEDCO for rejection of his offer, except as mentioned in Clause-4.19 of Section-IV. The TANGEDCO shall always be at liberty to reject or accept any offer or offers at its sole discretion and any such action will not be called into question and the Tenderer shall have no claim in that regard against the TANGEDCO.

7.0. EVALUATION AND COMPARISON OF THE TENDER OFFERS:

- 7.1. The tenders will be evaluated strictly as per the Tamil Nadu Transparency in Tenders Act, 1998 and the Tamil Nadu Transparency in Tender Rules, 2000.
- 7.2. The tender offers received will be examined to determine whether they are in complete shape, all required Data have been furnished, properly signed and generally in order and conforms to all the terms and conditions of the Specification without any deviation.
- 7.3. For the purpose of evaluation of tender offers, the following factors will be taken into account for arriving the evaluated price:
 - The quoted price will be corrected for arithmetical errors.

- In case of discrepancy between the price quoted in words and figures lowest of the two will be considered.

- The rate of CGST, SGST, and IGST as applicable both in percentage and amount shall be indicated in the offer along with HSN code.

- The evaluated price shall be arrived in compliance with the provisions of GST on the Transaction value i.e. (Ex works price + P&F+ Freight and Insurance) + GST. In case of import of goods would be treated as inter state supplies and would be subject to IGST in addition to applicable customs duty.

- Since GST is enacted wherein all taxes & duties are subsumed, price evaluation shall be inclusive of applicable GST in all cases, i.e. even if the bidders are only within the State or bidders are within the State and outside TN.

7.4 Evaluation for the capacity of material /equipment will be done separately.

7.5 The rates quoted by the eligible lowest tenderer in the open tender Rate Contract Scheme shall be compared with the prevailing market rate and the rates of previous period and if the Tender Accepting Authority is of the view that the quoted rates are too high, the rates will be negotiated and the rate will be determined. All eligible bidders who accept the rate shall be enlisted.

7.6 The tenderers shall mention the quantity in Questionnaire - A. The tenderers shall quote the minimum quantity of 10% of tendered quantity. The offer of the bidders who have quoted for lesser quantity than the minimum quantity prescribed shall be summarily rejected. In the event of procurement of more items of similar materials of various sizes or ratio etc. the cumulative 10% of the aggregate quantity of various items will be considered for arriving at minimum quantity.

8.0. VALIDITY:

8.1. The tender offer shall be kept valid for acceptance for period of 180 days from the date of opening of offers. The offers with lower validity period are liable for rejection.

8.2. Further, the tenderer shall agree to extend the validity of the Bids without altering the substance and prices of their Bid for further periods, if any, required by the TANGEDCO.

9.0. RIGHTS OF THE BOARD:

- 9.1. Notwithstanding anything contained in this Specification, the TANGEDCO reserves the rights :
- a) to vary the quantity finally ordered to the extent of 25% indicated in the Tender document.
 - b) to split the Tendered Quantity and place orders on one or more than one firm as per the Tamil Nadu Transparency in Tender Rules 2000 since the tendered material is so vital in nature and the failure in supply would affect the public interest.
 - c) to recover losses , if any, sustained by TANGEDCO, from the supplier who pleads his inability to supply and backs out of his obligation after award of contract. The security deposit paid shall, be forfeited.
 - d) to cancel the orders for not keeping up the delivery schedule.
 - e) to vary the delivery period based on the requirement and contingencies at the time of placing the Rate contract.
 - f) to accept the lowest eligible tender.
 - g) to reject any or all the tenders or cancel without assigning any reasons therefor.
 - h) to relax or waive or amend any of the conditions stipulated in the tender Specification wherever deemed necessary in the best interest of the TANGEDCO.
- 9.2. The purchaser reserves the right to request for any additional information and also reserves the right to reject or accept the proposal of any tenderer, if in the opinion of the purchaser, the qualification data is incomplete or in the opinion of the TANGEDCO the bidder is found not qualified to satisfactorily perform the contract.

10.0. DEVIATIONS:

- 10.1 The tenderer shall furnish, any deviations in the technical/commercial terms in schedule-B1/B2 annexed. If no deviations are furnished it will be construed that the tenderer is accepting the technical specification and commercial terms. Similarly if any deviations are furnished in the specified form it will be construed that these are the only deviations and the tenderer is accepting all other terms of the specification and the offer will be taken for evaluation accordingly.
- 10.2 The offers of the Tenderers with Deviations in Commercial terms and Technical Terms of the Tender Document are liable for rejection.

10.3 No alternate offer will be accepted.

11.0. BAR OF JURISDICTION:

Save as otherwise provided in the Tamil Nadu Transparency in Tender Act, 1998 no order passed or proceedings taken by any officer or authority under this Act shall be called in question in any court and no injunction shall be granted by any court in respect of any action taken or to be taken by such officer or authority in pursuance of any power conferred by or under this Act



SECTION - V
COMMERCIAL

1.) SCOPE:

- 1.1) Supply, Erection, Testing, Commissioning and Maintenance for 3 years of Roof top LT Grid connected solar plant of various capacities at Karur Electricity Distribution Circle

2) PLACING OF ORDERS:

2.0) It is not binding on the Board to accept the lowest or any tender. TANGEDCO reserves the right to split and place orders for the items with different tenderers and for revising the quantities at the time of placing the orders. The TANGEDCO reserves the right to vary the quantity finally ordered to the extent of 25% either way of the requirement indicated in the tender documents.

2.1) The award of contract will be issued to the successful tenderer with all TANGEDCO's terms and conditions, duly indicating the approved unit rates and the quantity allotted to them.

3.0 PRICE:

3.1 The Tenderers are requested to quote **FIRM** price only.

3.2 The prices quoted shall be per unit.

a) All-inclusive price including GST as applicable , Packing and Forwarding, Freight and Insurance for Delivery of the complete materials and all its accessories at Pugalur 230/110KV SS.

The split-up details of price as per Schedule-A shall be entered online in the appropriate boxes provided. **(If any EPF ESI to be quoted, it should be quoted with Basic price)**

b) GST. (Percentage and amount)

4.0. Unloading the materials at destination Stores should be done by the supplier at his own cost.

a. Unit Ex-works price

b. Freight and Insurance charges

c. GST as applicable

d. The Freight & Insurance Charges shall be applicable for delivery at Pugalur 230/110KV SS. The above breakup details should be clearly indicated in the BOQ, in the absence of which the offer shall be liable for rejection.

4.1. All Tests specified shall be conducted at TENDERER'S COST.

4.2 The tenderer should quote their rates taking into account the (Input Tax Credit (ITC) relief available to them on account of GST already paid. A certificate to this effect may be furnished along with the tender(AnnexureIII).

5.0 Goods and Services Tax [GST]:

- i. Goods and Services Tax [GST] as a modern law, has been brought after Article 366(12A) of the Constitution as amended by 101st Constitutional Amendment Act, 2016. GST is an indirect tax system, commonly used by both the Central Government and the State/UT to final consumption with credit of taxes paid at previous stages available as set off. In a nutshell, only value addition will be taxed and burden of tax Governments on goods and services. GST is a destination based tax on consumption of goods and services. It is proposed to be levied at all stages right from manufacture up to be borne by the final consumer. GST has been rolled out w.e.f. 01.07.2017, across India.
- ii. The GST to be levied by the Centre on intra-State supply of goods and / or services would be called the Central GST (CGST) and that to be levied by the States/ Union territory would be called the State GST (SGST)/ UTGST. Similarly, Integrated GST (IGST) will be levied and administered by Centre on every inter-state supply of goods and services.
- iii. Any supplier of goods and service Provider of services who makes a taxable supply with an aggregate turnover of over Rs.20 lakhs in a financial year is required to obtain GST registration. In special category states, the aggregate turnover criteria are set at Rs.10 lakhs. In simple words every business whose taxable supply of goods or services under GST (Goods and Service Tax) and whose turnover exceeds the threshold limit of Rs. 20 lakhs / 10 Lakhs as applicable will be required to register as a normal taxable person.
- iv. *GST Registration Number*: TANGEDCO has migrated into GST regime on 15.06.2017 by duly uploading various mandatory data as required by the GST portal. The provisional ID issued to TANGEDCO is 33AADCT4784E1ZC. The details are also posted in TANGEDCO web portal.
- v. GST Registration Number or GSTIN is 15 Digit identification number which is allotted to each applicant who applied for GST Registration. GST Number is completely based on the Pan Number and State code. First two digits represent the state code and another 10 digit represent the PAN number of the client, one digit represent the entity code (Like proprietorship or partnership etc), one digit is blank and last one is representing check digit.
- vi. *Transaction Value*: The value of supply of goods or services or both shall be the transaction value, which is the price actually paid or payable for the said supply of goods or services or both where the supplier and the recipient of the supply are not related and the

price is the sole consideration for the supply. Sec 15(1) states that value of supply of goods and service shall be the transaction value i.e. the price actually paid or payable.

The conditions for accepting the transaction value are

- a) Supplier and the recipient of the supply are not related.
- b) Price is the sole consideration for the supply.

vii. *Composition Scheme*: Composition scheme specifies that registered person whose turnover in the preceding financial year is below certain specified limit (Currently RS.75 lakhs) may intimate the proper officer to pay in lieu of tax payable by him an amount calculated at such rate may be specified.

Eligibility for composition scheme: Sec10(2) of the central Goods and Services Tax Act, 2017 states that the registered person shall be eligible to opt under sub- section (1), if-

- He is not engaged in the supply of services other than supplies referred to in clause (b) of paragraph 6 of Schedule II;
- He is not engaged in making any supply of goods which are not leviable to tax under this Act;
- He is not engaged in making any inter-State outward supplies of goods;
- He is not engaged in making any supply of goods through an electronic commerce operator who is required to collect tax at source under section 52; and
- He is not a manufacturer of such goods as may be notified by the Government on the recommendations of the Council.

viii. *Supply of Service and Goods*: When there is a combined supply of many goods / services, it has to be determined whether it is a Composite supply or mixed supply of goods or services

(a) *COMPOSITE SUPPLY*: A composite supply is one where all the goods or services or a combination has to be supplied together i.e., naturally bundled and there would be a Principal Supply that could be identified (Ex. Supply of Machinery with packaging, insurance and freight – the principal supply is machinery). In this case, the rate of principal supply will be applied on entire value.

(b) *MIXED SUPPLY*: A mixed supply is one where the goods or services or a combination thereof which could be individually supplied (like Pizza and Coke) but sold together at a single price. In this case, the highest rate to the good in that mix is applied on all the goods. The GST shall be applicable at appropriate

prevailing rates as notified by GST Act. In the event of delay in execution of contract, the GST rate prevailing on the scheduled period or on the actual date of execution, whichever is less only will be admitted.

The bidders should have registered under GST Act and furnish GSTIN. In the event of contractor is within TN, SGST & CGST shall apply and if the contractor is outside TN, IGST shall apply.

5.1 Goods and Services Tax:

5.2 The Goods and Services Tax will be paid extra as applicable. The amount of CGST, SGST, and IGST as applicable shall be indicated in percentage payable and amount separately in the tender offer.

5.3 The TANGEDCO has been registered as a dealer under GST Act 2017 (Registration No. 33AADCT4784E1ZC)

In case of delayed delivery, the GST prevailing on the date of despatch or on the last day of the contractual delivery period whichever is LESS will be admitted. For both the cases, the supplier shall furnish documentary evidence while submitting the bills for payment.

It is the responsibility of the tenderer to make sure about the correct rates of duty liveable on the material at the time of tendering. If the rates assumed by the Tenderer are less than the current rates prevailing at the time of tendering, the TANGEDCO Ltd will not be responsible for the mistake. If the rates assumed by the tenderer are higher than the current rates prevailing at the time of tendering, the GST prevailing at the time of tendering will only be paid.

5.4 Any increase in GST consequent to the suppliers coming into different duty slab during the execution of the contract shall have to be taken into account and the all inclusive firm price shall be quoted accordingly by the Tenderers. Any Variation in GST due to statutory Variation within the contract delivery date shall be considered by the TANGEDCO Ltd.

5.5 In case of delayed delivery, the GST prevailed on the date of actual delivery applicable on the date of contractual date of delivery whichever is less shall be admitted.

6.0 INSURANCE:

Contracting firms shall arrange insurance for the equipment and all its accessories being supplied by them, through any of the Nationalised Insurance Companies. The equipment shall be insured to cover transport (from Warehouse) and 60 days storage risk at site. The damages, if any, during transit will be reported within 30 days of receipt of materials. It will be the responsibility of the supplier to replace the defective/damaged materials and make good the shortages and other losses in transit, free of

cost, lodge and recover claim from Insurance, Under-writers/Carriers.

The contractor should satisfy the Executive Engineer/o/Pugalur that "Accident Risk Insurance Policy" taken before taking over the site for taking up the work and also to satisfy the Executive Engineer, that the policy/policies is/are kept in force till the contract is completed and the works are taken over by the TANTRANSCO, on the issue of completion certificate. Recoveries will be made from contractor's bills for any liability for the accidents and refund of the same considered later after the claims is fully settled by the Insurance authorities.

7.0 PACKING AND FORWARDING:

The equipment and all its accessories shall be securely packed and despatched, freight paid, duly insured, at supplier's risk and cost. The packing may be in accordance with the manufacturer's standard practice. The supplier is responsible for ascertaining the facilities that exist for Road Transport to site. Each package shall be clearly marked and contain detailed packing list, such as gross weight, net weight etc., the supplier is solely responsible for any loss or damage during transport. The despatch of materials shall be only after the approval of test certificates by the Board. The Equipments/Materials shall be unloaded at destination store/ site by the supplier at free of cost.

Each consignment shall be accompanied by a detailed packing list containing the following information.

Name of the consignee.

Details of consignment

Destination

Total weight of consignment

Handling and unpacking instructions.

Bill of material indicating contents of each package.

The supplier shall ensure that the bill of material is approved by the purchaser before despatch.

The supplier is responsible to make sure about the facilities that exist for Road and Rail transport to site, the maximum packages which can be conveyed by the railways and crane lift available at the destination railway station. The supplier is also responsible for any loss or damage during transport and storage for 60 days.

8.0 PAYMENT:

8.1 Payment for the supplies will be made by E-banking on any one of the Nationalised Banks/ Scheduled Banks approved by Reserve Bank of India in Tamil Nadu. The Bank charges involved in making the payment will be to the account of the Tenderer.

8.2 Payment to the suppliers will be made through public fund management system (PFMS) portal from the dedicated account maintained with a nationalized bank, by Head quarters, TANGEDCO. The bank charges if any involved in making then payment will be on the account of tenderer. The

tenderer has to furnish the following details of the bank account to which the payment be credited:

1. Name of the account holder
2. Name of the bank
3. Branch
4. Account Number
5. IFSC code of the branch

8.3 Payments will not be made for materials damaged during transit. All defective materials shall be replaced by the supplier free of charge.

(a) For the materials delivered within the contractual delivery period:

95% of payment (including GST) will be made for completed portion of work/unit of work and balance 5% withheld amount will be paid on satisfactory completion of purchase order in all respect provided that there is no recovery or forfeiture of any amount from the contractor.

It shall be noted that no advance payment will be made by the TANGEDCO For any part of the contract under any circumstances even if the contractor is a Government body.

(b) For the materials delivered beyond the the contractual delivery period if accepted by the purchaser.

95% of the all-inclusive price (including GST) of the materials after deducting the appropriate amount of LD of each consignment will be paid within a reasonable time after receipt of materials and submission of bills with required documents after deducting recoveries, if any.

8.4 For the delayed payments, if any, TANGEDCO will not pay any interest on any account.

8.5 In cases of delayed supply, the materials will be accepted subject to the following conditions.

- a) There should be no declining trend in prices.
- b) Payment will be released as per the recent purchase order rates or lowest rates obtained during the recent tenders opened subject to levy of liquidated damages for belated supplies
- c) TANGEDCO reserves the right to accept or reject the delayed supplies without assigning any reason there for and take action as per the other terms and conditions of this specification.

8.6 The bills for payment will be passed only after the approval / acceptance of the following:

- i) Security Deposit cum Performance Guarantee for 5% value of the order.
- ii) Test Certificate.
- iii) Undertaking towards jurisdiction for legal proceedings.
- iv) Guarantee Certificate.

- v) Supply of approved drawings, Instruction manuals etc, as per section VI Technical of this specification.
- vi) The contractor shall produce the proof of EPF Reg Number if quoted EPF

8.7 The supplier should despatch only after getting despatch instructions from the Superintending Engineer/KEDC/Karur. If the supplier despatches the materials without the prior approval of the purchaser, then the purchaser shall not be responsible for any demurrage or wharfage or both and only the supplier should bear any expenditure arising out of such unapproved despatches.

9.0 SECURITY DEPOSIT CUM PERFORMANCE GUARANTEE:

- 9.1 The Successful tenderer will have to furnish 5% of order value (Allinclusive price) as Security Deposit cum Performance Guarantee (including Earnest Money Deposit remitted) in the form of DD / Banker's Cheque / irrevocable Bank Guarantee.
- 9.2 The successful tenderer will have to furnish the Security Deposit cum Performance Guarantee within 15 days from the date of receipt of award of Rate Contract Order. The security deposit Cum Performance Guarantee will not carry any interest. The TANGEDCO also reserves the right to accept the belated payment of security deposit Cum Performance Guarantee by levying penal interest at the rate of 22% p.a. from the date of expiry of 15 days time limit till the date of actual payment of Security Deposit cum Performance Guarantee. The same will be recovered from supplier's first bill.
- 9.3 Failure to comply with the terms regarding Security Deposit Cum Performance Guarantee set out in the contract order within the stipulated time by the successful tenderer will entail in the cancellation of the contract without any further reference to the supplier.
- 9.4 The Security Deposit Cum Performance Guarantee will be refunded to the supplier after the expiry of the guarantee period ensuring that defects/ damages during the guarantee period are rectified /replaced. If the purchaser incurs any loss or damages on account of breach of any of the clauses or any other amount arising out of the contract becomes payable by the supplier to the purchaser, then the purchaser will in addition to such other dues that he shall have under law, appropriate the whole or part of the security deposit and such amount that is appropriated will not be refunded to the supplier.
- 9.5 In case of delay in supply, the BG should be extended suitably. The Bank Guarantee should be a single Bank Guarantee and should be furnished within 15 days from the date of receipt of purchase order.
- 9.6 **The Bank guarantee shall be extended for its validity without break in period till completion of project.**

10.0 DELIVERY:

"The drawing should be submitted within 15 days from the date of receipt of purchase order. The entire work should be completed within 2 months from the date of receipt of "HANDING OVER OF SITE" from the respective Executive Engineer. If the guaranteed delivery period is not kept up, the liquidated damages specified in Clause - 12 will be enforced.

The contact details and address are given below:

| Location | Address | Contact details | Capacity |
|---------------------------------|--|------------------------------------|---------------|
| At EE/O/Pugalur office Building | OFFICE OF THE EXECUTIVE ENGINEER, 230/110KV SS, Pugalur. | Executive Engineer/O 9445853400 | 22KWP – 1 set |

- 10.1 TANGEDCO reserves the right to cancel the quantities not supplied as per delivery schedule.
- 10.2 TANGEDCO also reserves the right to cancel the order if the delivery schedule is not kept up, without any further notice to the supplier.
- 10.3 To ensure sustained supply without any interruption, TANGEDCO reserves the right to place orders among more than one tenderer.
- 10.4 The TANGEDCO will be at liberty to cancel the contract if the supply is not made as per the delivery schedule specified in the indent, notwithstanding its right to claim liquidated damages for the belated supplies and the quantity outstanding to be supplied as on the date of cancellation. The defaulting contractors will be liable to pay to the TANGEDCO in addition to the liquidated damages for delay, the actual difference in price whenever the TANGEDCO orders the delayed quantity to be supplied / executed by other agencies at higher rate.
- 10.5 The actual date of receipt of each material with all accessories will be reckoned as the date of delivery for the purpose of calculation of liquidated damages in respect of that material.
- 10.6 It is the responsibility of the supplier to give 15 days advance information for inspection, despatch of materials and other obligations under the terms and conditions of this contract in order to deliver the materials within the contractual delivery period quoted /agreed.
- 10.7 The delivery period will not normally be extended. Hence all efforts shall be taken to deliver the materials within the contractual delivery period.

11.0 INSPECTION:

- 11.1 The authorised representatives of the purchaser shall have access to the supplier's works at any time during working hours, for the purpose of inspecting the manufacture of the materials and for testing the selected samples from the materials covered by the specification. The suppliers shall provide necessary facilities for such inspection. **The entire cost of inspection shall be borne by the supplier.**
- 11.2 Tenderers are requested to furnish in their tenders the exact location of their factory with detailed address to enable inspection by TANGEDCO Officers.
- 11.3 Not less than 15 days advance intimation shall be given about the quantity of materials that will be ready for inspection by the TANGEDCO's officers/ Third Party Agency authorised by the TANGEDCO. The arrangement for inspection shall be made by suppliers in such a way that the delivery schedule is kept up. The materials shall not be despatched without instruction from TANGEDCO.

11.4 INSPECTION OF SITE BY BIDDERS :

Bidder shall inspect the site, examine and obtain all information required and satisfy himself regarding matters and things such as access to site, communication, transport, right of way, the type and number of equipment and facilities required for the satisfactory completion of works, the quantity of various sections of the work, the availability of local labour, availability and rates of material, local working conditions, uncertainties of weather, obstructions and hindrances that may arise, etc. which may affect the work or cost thereof, before submission of his bid. Ignorance of site condition shall not be accepted by the Owner as basis for any claim for compensation. The submission of a bid by the bidder will be construed as evidence that such an examination was made and any later claims/disputes in regard to rates quoted shall not be entertained or considered by the Owner.

The rates quoted by BIDDER shall be based on his own knowledge and judgment of the conditions and hazards involved and shall not be based on any representations of the ENGINEER

12.0 LIQUIDATED DAMAGES:

The delivery as specified should be guaranteed by the supplier/contractor under the Liquidated Damages Clauses given below:

If the contractor fails in the due performance of this contract within the time fixed by the contract (or) any extension thereof, and contractor is liable, at the discretion of the Engineer to levy of Liquidated damages for the delay in execution which shall be at half percent (0.5%) of the contract price of the delayed portion for each completed week of delay reckoned on the contract value of such portion only of the work as cannot

in consequence of the delay be used commercially and efficiently during each month between the appointed or extended time as the case may be and full satisfaction of the contractor's liability for delay but shall not in any case exceed 10 % of the contract value of such portion of the work. However, in respect of contracts where supplies effected in part or works executed in part could not be beneficially used by the TANGEDCO (Due to such incomplete supplies / execution) liquidated damages shall be worked out on the basis of entire contract price only and not on the value of delayed portion.

The contractor is liable to pay to the TANGEDCO in addition to liquidated damages for delay, the actual difference in price wherever the TANGEDCO orders, the delayed quantity to be supplied / executed by other agencies at a higher rate.

If supplies to be rendered against the Rate Contract Order are made by the supplier beyond the period of delivery stipulated in the indent and if they are accepted by the TANGEDCO, such acceptance is without prejudice to the TANGEDCO's rights to levy liquidated damages for the delay in supply.

The TANGEDCO will also be at liberty to cancel the order if the supply is not made as per the delivery schedule specified in the indent, notwithstanding its rights to claim liquidated damages for the belated supplies and quantity outstanding to be supplied as on the date of cancellation.

The suppliers are liable to pay the amount of loss sustained by the TANGEDCO in the event of non-execution of orders, if any placed on them either in full or part to the satisfaction of the TANGEDCO under the terms and conditions of contract and in the event of placing orders for such quantities on some others at a higher price.

Tenderers not giving clear and specific acceptance to the above clauses are liable for rejection.

If there is any downward trend in prices on account of belated supplies, the tenderers have to accept the same with the levy of liquidated damages, for belated supplies.

The defaulting contractors will be liable to pay to the TANGEDCO in addition to Liquidated Damages for delay, the actual difference in price wherever TANGEDCO orders the delayed quantity to be supplied by other agencies at a higher cost.

Equipment/materials will be deemed to have been delivered only when all its component and its accessories are also delivered. If certain components and accessories are not delivered in time the whole equipment will be considered as delayed unless, the missing parts are delivered. **The Liquidated damages will also be levied for the quantity not supplied as is done for the delay supplies. If supplies effected in part which could not be beneficially used to the TANGEDCO (due to such incomplete supply), liquidated damage will be**

worked out on the basis of entire contract price of such materials which could not be beneficially used and not on the value of delayed portion only.

If the ordered materials are not delivered, the purchaser shall recover from the supplier, as liquidated damages a sum of **TEN PERCENT (10%)** of the contract price of the equipments/materials undelivered besides forfeiture of security deposit.

13.0 FORCE MAJEURE:

13.1 The supplier shall not be liable for delay in performing his obligations resulting directly or from any force majeure conditions herein defined as:

- (a) Any cause which is beyond the reasonable control of the supplier or Purchaser as the case may be
- (b) Natural phenomena, such as floods, drought, earthquakes and epidemics.
- (c) Act of any Govt. Authority, domestic or foreign, such as wars declared or undeclared quarantines, embargoes licensing control on production or distribution restrictions.
- (d) Accident and disruptions such as fire, explosion, increase in power cut with respect to date of tender opening, break down of essential machinery or equipments etc.
- (e) Strikes, slow down, and lockouts.
- (f) Failure or delay in the supplier's source of supply due to force majeure causes enumerated at 'b' to 'e' above shall be considered, provided the supplier produces documentary evidence to show that there were no other alternative source of supply available to him or if available the lead time required was likely to be longer than the duration of the force majeure at the normal source of supply. All the provisions of this clause shall apply whether the disruption cause is total or partial in its effect upon the ability of the supplier to perform.

NOTE: The cause of force majeure condition will be taken into consideration only if the supplier notifies within 15 days from the occurrence of such eventualities. The purchaser shall verify the facts and grant such extension as the facts justify. For extension due to force majeure conditions, the supplier shall submit his representation with documentary evidence for scrutiny by the purchaser and decision of the purchaser shall be binding on the firm.

13.2 Provided that if the performance in whole or part by the supplier on any obligation under this contract is prevented or delayed by reasons of any eventuality for a period exceeding 60 days, the TANGEDCO may at its option terminate the contract by a notice in writing.

13.3 The Power cut shall not be considered under force majeure condition. The period of extension shall be decided only by the authority who placed the order, after verifying the evidence for the cause of delay.

14.0 GUARANTEE:

The entire equipments should be guaranteed for satisfactory operation and good workmanship at least for a period of 36 (Thirty six) months from the date of completion erection ,installation and handing over of site to Engineer concerned at site in good condition.

Any defects noticed during this period shall be rectified free of cost to the TANGEDCO within 2 (Two) months from the date of intimation of defect/failure. Irrespective of number of failures and repairs, the suppliers are responsible for free replacement of the defective materials. Such replaced components shall serve for a continuous period of 12 months from the date of re-commissioning and this shall be in addition to the guarantee provided for the equipment.

A written guarantee guaranteeing the TANGEDCO against defects in the materials supplied, either in materials or workmanship, should be furnished to the consignee Superintending Engineer along with 100% bills and got approved by him. The guarantee shall be operative for a period of 36 months from the date of receipt of materials at site in good condition.

The incidental expenses, transport and freight charges for the replacement of defective materials within the guarantee period shall also be borne by the supplier till such time it serves a continuous period of 12 (Twelve) months as said above.

The Supplier shall guarantee among other things, the following:

- (i) Quality and strength of materials used.
- (ii) Safe electrical and mechanical stresses on all parts of the equipments under all specified conditions.
- (iii) Performance figures given by the tenderers in the Schedule of Guaranteed technical particulars

15.0 DESPATCH INSTRUCTIONS:

The supplier should despatch the materials only after getting dispatch Instruction from the Superintending Engineer/ KEDC/Karur .If the supplier despatches the materials without the prior approval of the purchaser, then the purchaser shall not be responsible for any demurrage or wharfage or both and only the supplier should bear any expenditure arising out of such unapproved despatches.

16.0 LOSS OR DAMAGE:

16.1 External damages or shortages that are prima facie the results of rough handling in transit or due to defective packing will be intimated within a fortnight of the receipt of the materials. Internal defects, damages or shortages of any integral parts which cannot ordinarily be detected on a superficial visual examination caused by bad handling in transit or defective packing would be indicated after inspection on receipt of the materials at stores. In either case, the damaged or defective materials should be replaced free of cost to the TANGEDCO within 60 days.

- 16.2 If during the period of supply, it is found that goods already supplied are defective in material or workmanship or do not conform to specification or unsuitable for the purpose for which they are purchased, then it will be open to the purchaser either to reject the goods or repudiate the entire contract and claim such loss that the purchaser may suffer on that account require the supplier to replace the defective goods, free of cost.
- 16.3 Similarly, if during the guarantee period any of the goods found to be defective in materials or workmanship or do not conform to specification or are unsuitable for the purpose for which they are purchased, it will be open to the purchaser either to repudiate the entire contract and claim damages or accept such parts of the goods that are satisfactory and require the supplier to replace the balance or to claim compensation for the entire loss sustained by the purchaser on that account.
- 16.4 In the event of supplies being received damaged or any shortages at the destination stations, the cost of such materials, Excise duty and VAT (if payable) and other charges payable thereof will be paid only proportionate to the value of materials received in good condition, unless the damaged goods or short supplies are made good free of cost by the suppliers.
- 16.5 For all legal purposes, the materials shall be deemed to pass into the TANGEDCO's ownership at the destination Stores, where they are delivered and accepted.

17.0 LIABILITY FOR ACCIDENT TO PERSONS:

The CONTRACTOR shall indemnify and save harm to the PURCHASER against all rejections, suits, claims, demands, cost of expenses arising in connection with injuries suffered, prior to the date when the works or plant shall have been taken over, by person employed by the CONTRACTOR or his SUBCONTRACTOR or the works whether under the general law or under the workmen's compensation Act, 1923, or any other statute in force on the date of the contract, dealing with question of liability of employer for injuries suffered by employees and to have taken steps properly to insure against any claims there under.

On the occurrence of an accident which results in the death of the workmen employed by the CONTRACTOR or which is due to the contract work and if so serious as to be likely to result in the death of any such workmen, the CONTRACTOR shall within 24 hours of happening of such accident intimate in writing to the concerned ENGINEER and such officers required by the provision of the workmen's compensation Act the fact of such accident. The CONTRACTOR shall indemnify the TANGEDCO against all loss or damages sustained by the TANGEDCO resulting directly or indirectly from his failure to give intimation the manner aforesaid including the penalties or fines, if any payable by the TANGEDCO as a consequence, of the TANGEDCO's failure to give notice under the workmen's Compensation Act or otherwise to conform to the provisions of the said Act in regard to such accident.

In the event of any claim being made, or action brought against the PURCHASER involving the CONTRACTOR and arising out of the matters referred to and in respect of which the CONTRACTOR is liable under clause, the CONTRACTOR shall be immediately notified thereof, and he shall with the assistance, if he so require, of the PURCHASER but at the sole expense of the CONTRACTOR, conduct all negotiations for the settlement of the same or any litigation that may arise there from. In such cases, the PURCHASER shall, at the expense of the CONTRACTOR, afford all available assistance for any such purpose.

In the event of an accident in respect of which compensation may become payable under workmen's Compensation Act VII of 1923 and any subsequent amendment thereof whether by the CONTRACTOR, or by the TANGEDCO, as principal it shall be lawful for the ENGINEER to retain out of money due and payable to the CONTRACTOR such sum or sums of money as may be in the opinion of the said ENGINEER be sufficient to meet such liability.

The opinion of the ENGINEER shall be final in regard to all matters arising under this clause and will not be subject to any arbitration. Liability for damage or loss to third party including inspection officers due to act of the CONTRACTOR or his plant or SUB-CONTRACTOR connected with the execution of the contract shall be fully borne by the CONTRACTOR. The CONTRACTOR shall maintain such detailed records to furnish information regarding entertainment and discharge of all workmen employed under this contract as to be adequate for the timely and full settlement of claims under the Workmen's compensation Act. All cases of accidents or injuries shall be reported to the ENGINEER with all the full details required for the settlement under the workers' compensation Act.

The CONTRACTOR should report about all accidents within 24 hours to the Assistant Engineer of the TANGEDCO in the preliminary accident form. He should furnish other particulars such as medical certificates, wage particulars, fitness etc., in due course without delay.

18.0 LIABILITY FOR DAMAGE TO WORKS OR PLANTS:

The CONTRACTOR shall during the progress of the work properly cover up and protect the work and plant from damage by exposure to the weather, and shall take every reasonable proper, timely and useful precaution against accident or injury to the same from any cause and shall be and remain answerable and liable for all accidents or injuries there to which until the same, be or be occasioned by the acts or omissions of the CONTRACTOR or his workmen or his sub-contractors, and all losses and damages to the works or plant arising from such accidents or injuries as aforesaid shall be made good in the most complete and substantial manner by and at the sole cost of the CONTRACTOR and to the reasonable satisfaction of the ENGINEER. Should such loss or damage happen to units of works or plant or materials falling outside the scope of this contract and due to the contract, those shall be replaced or compensated for by the CONTRACTOR to the satisfaction of ENGINEER.

In the case of loss or damage to any portion of the work occasioned by other causes, the same shall, if required by the PURCHASER, be made good by the CONTRACTOR in like manner but at the cost of the PURCHASER at a price to be agreed between the contractor and the PURCHASER and the PURCHASER shall pay to the CONTRACTOR the contract value of the portion of the work so lost or damaged or any balance of such contract value remaining unpaid as the case may be.

Until the work shall be deemed to be taken over as aforesaid, the CONTRACTOR shall also be liable for and shall indemnify the PURCHASER in respect of all damage or injury to any person or to any property of the PURCHASER or of others occasioned by Act of the CONTRACTOR or his work men or his sub-contractors or by defective design, work or material but not due to cause beyond his reasonable control.

Provided that the CONTRACTOR shall not be eligible under the contract for any loss or profit or loss of contracts or any claims made against the PURCHASER not already provided for in the contract, nor for any damage or injury caused by or arising from acts of the PURCHASER or of others (save as to damage by fire, as hereinafter provided) due to the circumstances over which the CONTRACTOR has not control nor shall his total liability for loss, damage or injury exceed the total value of the contract.

19.0 REPLACEMENT OF DEFECTIVE / DAMAGED MATERIALS:

- 19.1 Notwithstanding anything contained in the above Liquidated Damages clause when the whole or part of the materials supplied by the supplier are found to be defective or damaged or are not in conformity with the specification, such defects or damages in materials supplied shall be rectified within two months from the date of intimation of defects/ damages either at the point of destination or at the supplier's works at the cost of the supplier against proper security and acknowledgement. In the alternative, the defective or damaged materials shall be replaced free of cost within two months from the date of receipt of the intimation from the purchaser. If the defects or damages are not rectified or replaced within this period, the contractor shall pay a sum towards liquidated damages clause given above, for the delay in rectification/ replacement of the defects or damages.
- 19.2 If even after such rectification or replacement of the damaged or defective part, if the equipment/materials ordered is not giving the satisfactory performance as per the contract, then it will be open to the purchaser either to reject the goods or repudiate the entire contract and claim such loss sustained by the TANGEDCO.
- 19.3 Notwithstanding any other remedies available, the purchaser shall be entitled to dispose of the defective/damaged materials in "as is where is" condition without further notice, if the Contractor/supplier fails to rectify the defect and/or replace the damaged materials and / or fails to remove the defective/damaged materials within such period as may be notified by the

purchaser through notice and their sale proceeds of such disposal shall be appropriated towards the dues to the TANGEDCO such as Liquidated damages, ground rent etc., as may be determined by the purchaser.

20.0 POWER SUPPLY:

The Power supply will be effected at the appropriate tariff and at only one convenient point as decided by the Engineer at site and the contractor will have to put up and maintain their distribution system at their own cost from the point of take off from the nearest main provided by the TANGEDCO.

21.0 RESPONSIBILITY:

The tenderer is responsible for safe delivery of the materials at the destination stores. The tenderer should include and provide for packing and secured protection of the materials so as to avoid damages or loss in transit.

22.0 FAILURE TO EXECUTE THE CONTRACT:

Contractors failing to execute the order placed on them to the satisfaction of the TANGEDCO under the terms and conditions set forth therein, will be liable to make good the loss sustained by the TANGEDCO, consequent to the placing of fresh orders elsewhere at higher rate, i.e. the difference between the price accepted in the contract already entered into and the price at which fresh orders have been placed. This is without prejudice to the imposition of penalty under the Liquidated Damages clause and forfeiture of SD for the breach of contract.

23.0 NON-ASSIGNMENT:

The supplier shall not assign or transfer the contract or any part thereof without the prior approval of the Purchaser.

24.0 EFFECTING OF RECOVERIES:

Any loss, arising due to non-fulfillment of this contract or any other contract, will be recovered from the Security Deposit held and / or any other amount due to the supplier from the TANGEDCO/TANTRANSCO from this Contract as well as from other contracts.

25.0. RECOVERIES OF DUES:

The Board is empowered

- i) to recover any dues against this contract in any bills/Security Deposit/ Earnest Money Deposit/Permanent Earnest Money Deposit due to the contractor either in this contract or any other contract with TNEB/ TANGEDCO/TANTRANSCO.

- ii) To recover any dues against any other contracts of the contractor with TNEB/ TANGEDCO/TANTRANSCO, with the available amount due to the contractor against this contract.

26.0 RAW MATERIALS:

It is the responsibility of the tenderer to make his own arrangement to procure the necessary raw materials required for the manufacture.

27.0 INCOME TAX PERMANENT ACCOUNT NUMBER AND TIN NUMBER:

The tenderers should furnish the permanent Account number issued by Income tax Department with the Tender.

The tenderer shall furnish the GSTIN Number of the firm along with the proof in the tender.

28.0 SALES TAX CLEARANCE CERTIFICATE:

The tenderer should be ready to submit the returns as per GSTR1,2, and GSTR3 for each transaction.

29.0 ARBITRATION ACT NOT TO APPLY:

- 29.1 The TANGEDCO will not accept any arbitration in case of disputes arising in any respect under this contract. Any dispute arising out of this contract shall not be subject to arbitration under the provisions of Arbitration and Conciliation Act 1996 in the event of any dispute between the parties.

30.0 PAST PERFORMANCE:

- 30.1 The intending tenderers shall furnish the documentary evidence with details of Rate Contract Orders executed during the preceeding 5 years in the proforma enclosed in the Tender Specification as per Schedule-C.
- 30.2 The details furnished by the tenderers shall be in complete shape and if it is found that any information is found omitted, suppressed, incomplete or incorrect, the same will be taken note of while dealing with the tenders in future.

31.0 LEGAL STATUS OF THE FIRM:

- 31.1 The tenderers shall furnish necessary documents evidencing their legal status of the firm alongwith their offer.

32.0 JURISDICTION FOR LEGAL PROCEEDINGS (AFTER AWARD OF CONTRACT)

- 32.1 No suit or any proceedings in regard to any matter arising in respect of this

contract shall be instituted in any court, save in the High Court, Madras, City Civil Court at Karur or at the Court of small causes at Karur. It is agreed that no other court shall have jurisdiction to entertain any suit or proceedings even though, part of the cause of action might arise within their jurisdiction. In case any part of the cause of action might arise within the jurisdiction of any other Courts in Tamil Nadu and rest within the jurisdiction of courts outside the Tamil Nadu, then it is agreed to between the parties that such suits or proceedings shall be instituted in a Court within the State of Tamil Nadu and no other court outside the State of Tamil Nadu shall have jurisdiction even though any part of the cause of action might arise within the jurisdiction of such courts. The successful Tenderer shall furnish an undertaking as per Annexure-II in a non judicial stamp paper of Rs.80/- agreeing to the above condition.

Performance Guarantee will be released on expiry of guarantee period after ensuring that defects/damages during the guarantee period are rectified/replaced.

33.0 MATERIALS AND WORKMANSHIP:

- 33.1 All materials, equipments and spare parts thereof shall be new, unused and originally coming from manufacturers' plant to the destination stores. Those including used, rebuilt or overhauled materials/equipments will not be accepted.
- 33.2 All the materials shall be of best class and capable of satisfactory operation in the tropics with humid atmospheric condition. Unless otherwise specified, they shall conform to the requirements of appropriate Indian Standards. Where these are not available, IEC and American / British Standards shall be followed.
- 33.3 The design shall incorporate every reasonable precautions and provisions for the safety of all those concerned in the operation and maintenance of equipment/ materials.
- 33.4 The materials should be designed to facilitate inspection and repair and to ensure satisfactory operation under atmospheric conditions prevailing at site and under sudden variations of load and voltages as may be met with under working conditions in the system including those due to faulty synchronizing and short circuits within the rating of the apparatus.
- 33.5 All the equipments should operate without undue vibration and with the least practicable amount of noise.

34.0 SUSPENSION OF WORK:

The ENGINEER may from time to time by direction in writing for any valid reasons, without in any way vitiating this contract, direct the CONTRACTORS to suspend the work or any part thereof at such time or times and for so long as the ENGINEER may deem desirable, and the CONTRACTOR shall not, after receiving such written notice proceed with the works therein ordered to be suspended until he

shall have received written notice or authority to the effect from the ENGINEER. The CONTRACTOR shall not be entitled to claim from the PURCHASER compensation for any loss or damage sustained by him by reason of the suspension of works as aforesaid.

35.0 IDLE LABOUR:

No compensation shall be payable for idle labour, staff and machinery (hired or otherwise) due to occasional power failure or any causes beyond the control of the TANGEDCO and for pre-arranged shutdowns in electricity supply for which prior notice may be given.

36.0 INSPECTION OF WORKS:

The ENGINEER or his duly authorised agent shall have all times full power to inspect the work wherever in progress either on site or the CONTRACTOR'S premises or at the premises wherever situated or any firm or company where work in connection with this contract may be in hand. All records, registers of documents relating to the works including materials used on works shall be kept open to the inspection of the purchaser or his authorised representative when so called for in writing.

37.0 REMOVAL OF IMPERFECT WORK:

If, it shall appear that work has been executed with unsound imperfect or unskilled workmanship, or with materials of an imperfect or any inferior quality or otherwise not in accordance with the contract documents the contractor shall at his own cost rectify, reform, remove or reconstruct the same, either in the whole or in part, as may be directed by the Engineer whether or not the value of any such work of materials shall have been included in any payment made in the contractor.

38.0 TOOLS AND PLANTS FOR THE EXECUTION OF THE CONTRACT:

All tools and plants, equipment and tackle required for the complete execution of the contract shall be arranged for by the CONTRACTOR only at his own cost. The CONTRACTOR, may however, specify in his tender the terms under which or concessions, if any, that would require for procuring and using the tools and plant and equipment on the work except those that are to be supplied on hire or free of charges.

39.0 CLEANING OF THE SITE:

Upon completion of the work, the CONTRACTOR SHALL remove from the vicinity of the work all plant, buildings, rubbish unused materials, concrete forms and other materials, belonging to him or used under his discretion, during construction and in the event of his failure to do so, the same will be removed by the PURCHASER, and the relevant expenditure recovered from the CONTRACTOR.

40.0 QUANTITY ALLOCATION :

At the time of issuing indent for supply of materials, TANGEDCO reserves the right to allocate the quantity after ensuring the manufacturing capacity, ability of supply, quantity offered and past performance.

41.0 CLIMATIC CONDITIONS:

The materials are for use in Karur District and should be satisfactory for operation under tropical conditions in Karur District.

42.0 TEST CERTIFICATES:

The test certificates in triplicate for the materials furnishing the results of the tests as per latest issue of IS/IEC shall be forwarded and got approved before the materials are despatched. In addition to the tests called for in the specification, the purchaser reserves the right of having such tests as he desires carried out at his own expenses to satisfy himself that the materials conform to the requirement of this specification. The materials may be rejected if the test results are not satisfactory.

43.0 PROTECTION OF EQUIPMENT AND SAFETY:

The Contractor shall take all reasonable care to protect the materials handed over to him. Wherever necessary, suitable temporary fencing shall have to be provided by the Contractor as a safety measure against accident and damage of property of TANGEDCO. Suitable caution notices shall be displayed where access to any part may be deemed to be unsafe and hazardous.

44.0 SECURITY ARRANGEMENTS:

The Contractor shall provide sufficient number of Security Personnel/ Watchmen to ensure that the equipments, tools and consumables under his charge are not lost due to theft. Inadequate provision in this regard will result in TANGEDCO's Engineer making similar arrangements at Contractor's cost.

45.0 EXIT MANAGEMENT :

Exit Management Purpose

This Schedule sets out the provisions, which will apply on expiry of the O&M period of three years from the date of commissioning

Exit Management Plan

After the expiry of term & extension of term as the case may be, bidder shall hand over the plant to the TANGEDCO in excellent condition. The bidder shall demonstrate performance test of all the major & critical equipment to ensure Generation from the Solar Photovoltaic Power Plant.

While handing over the plant bidder shall hand over all technical documents, literature, instruction manuals, lists of spare part & tools & tackles. Bidder will also hand over all the relevant record/documents, spares and consumable required for three year's Operation & Maintenance.

On completion of O&M term the bidder will apply to the Engineer in-charge for the issue of Handing Over Certificate and the same will be issued within one month of the Handing Over in all respects, after verifying from the documents & tests and satisfying himself that the Operation & Maintenance has been completed in accordance with details set out in the control documents & prudent Utility Practices.

SECTION –VI

TECHNICAL SPECIFICATION OF GRID SPV POWER PLANT

1. SCOPE :

Supply, installation, testing and commissioning of LT Grid connected Solar Photo voltaic (SPV) Power Plant of capacity of **22KWp** at the Roof top of Office of the Superintending Engineer/TANGEDCO/Karur.

2. GENERAL REQUIREMENTS :

The Solar PV Power plant shall have capacity of 22**KWp**. The power plant shall provide the following general requirements.

The plant should have the Capacity Utilisation Factor (CUF) of not less than 19% as per the CERC (Terms and Conditions for Tariff determination from Renewable Energy Sources) Regulations 2012.

Supply of adequate capacity of SPV modules, inverters, etc to ensure maximum generation.

The power plant has to operate in parallel with the grid system which is an infinite electrical system. Any faults not taken care will result in damage of SPV power plant, thus the Solar Power Plant has to protect its equipment against any possible fault or other disturbances from the Grid.

All the materials shall be as per standard SPV plant requirements and may adhere to the necessary safety standards and environmental requirements.

A grid-tied Solar Photo Voltaic (SPV) power plant consists of SPV array, Module Mounting Structures, Solar Grid Inverter (SGI), control and protection devices, circuit breakers, interconnection cables and switches.

Components and parts used in the SPV power plants shall confirm to the BIS or IEC or other international specifications, wherever such specifications are available and applicable.

The bidder should be registered with TEDA.

3. Quality and Workmanship

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, TANGEDCO and its representatives will pay special attention to neatness of work execution and conformity with quality and safety norms. Non compliant works will have to be redone at the cost of the Installer.

4. System Configurations:

| | |
|------------------------------------|--|
| Name of the Beneficiary | TANGEDCO Salem |
| System capacity | 22kWp |
| Total Power output of panel(s) | should not be less than 22 Kwp |
| Type of PV Module | Indigenous Crystalline module |
| Minimum rated power of each module | 250Wp and above |
| Solar Grid Inverter minimum KVA | Minimum KVA is as per the respective required capacity |

5. Specifications of Solar PV Modules

Solar PV modules should 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 | $\geq 13\%$ |
| Fill factor | $\geq 70\%$ |
| warranty | Panel output (Wp) capacity to be $\geq 90\%$ at the end of 12 years and $\geq 80\%$ of at the end of 25years |
| Module frame | Non-corrosive and electrolytically compatible with the mounting structure material |
| Termination box | Thermo-plastic, IP 65, UV resistant |
| Blocking diodes | Schottky type |
| Module minimum rated power | The nominal power of a single PV module shall not be less than 250Wp and above . |
| RF Identification tag data | <ul style="list-style-type: none"> a) Name of the manufacturer of PV Module b) Name of the Manufacturer of Solar cells c) Month and year of manufacture (separately for solar cells and module) d) Country of origin (separately for solar cells and module) 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). IV curve of the sample module shall be submitted |
| Compliance with standards and codes | IEC 61215 / IS 14286 IEC 61730 Part 1 and 2 |

6. Solar PV Mounting Structure

The PV modules shall be mounted on fixed metallic structures having adequate strength and as per specifications given below which can withstand the load of the modules and high wind velocities. The array structure will be made of hot dip galvanized Mild steel.

Detailed specifications for the mounting structure are given below:

| | |
|---|---|
| Wind velocity withstanding capacity | 150 km / hour |
| Structure material | Hot dip galvanized steel with a minimum galvanisation thickness of 80 microns and the structural patterns shall be made before galvanizing. |
| Bolts, nuts, panel mounting clamps, fasteners (with spring washers) | Stainless steel SS 304 |
| Mounting arrangement for Ground installation | The structure has to be securely anchored to the supporting surface. Concrete foundations of appropriate weight and depth for structures mounted directly on the ground; Bolted with anchor bolts of appropriate strength for structures mounted on RCC surfaces. |
| 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 and mounting structure | 0.6m |
| 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 of 11 – 13 degrees (depending on location), south facing |

7. Solar Array Fuse

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 65 enclosures with transparent covers.

8. Solar Grid Inverter

The solar grid inverter converts the DC power of the solar PV modules to grid-compatible AC power. The detailed specifications of the solar grid inverter are given below.

| | |
|-------------------------------------|--|
| Total output power (AC) | To match solar PV plant capacity while achieving optimum system efficiency |
| Input DC voltage range | As required for the solar grid inverter DC input. |
| Maximum power point (MPPT) tracking | Shall be incorporated |
| 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 |
| 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 |
| Anti-islanding protection | As per VDE 0126-1-1 / IEC 60255.5 / IEC 60255.27 / IEC 62116 |
| Operating ambient temperature range | -10 °C - +60 °C |
| Humidity | 0 – 95% Rh |
| Inverter efficiency | >=98% |
| Inverter weighted efficiency | >=94% |
| Protection degree | IP 65 for outdoor mounting, IP 54 for indoor mounting |
| Communication interface | RS 485 / RS 232 / RJ45 |
| Safety compliance | IEC 62109-1, IEC 62109-2 |
| Environmental Testing | IEC 60068-2 (1,2,14,30) |
| Efficiency Measurement Procedure | IS/IEC 61683 |

| | |
|-------------------------------|---|
| Cooling | Convection |
| Display type | LCD for data display. LCD / LED for status display |
| Display parameters to include | Output power (W), cumulative energy (Wh), DC voltage (V), DC current (A), AC voltage (V), AC frequency (Hz), AC current (A), cumulative hours of operation (h). |

9. DC Combiner Box

A DC Combiner Box shall be used to combine the DC cables of the solar module arrays with MCCB for both +ve & -ve protection for the outgoing DC cable(s) to the DC Distribution Box.

10. DC Distribution Box

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:

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

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.

11. AC Distribution Box

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

- Incoming 5-core (three-phase) cable from the solar grid inverter
- AC circuit breaker, 4-pole
- AC surge protection device (SPD), class 2 as per IEC 60364-5-53
- Outgoing cable to the building electrical distribution board
- Connection to the Building Electrical System.

The AC output of the solar grid inverter shall be connected to the building's electrical system after the TANGEDCO service connection meter and main switch on the load side. The solar grid inverter output shall be connected to a dedicated module in the Main Distribution Board (MDB) of the building. It shall *not* be connected to a nearby load or socket point of the building. The connection to the electrical system of the building shall be done as shown in

single line diagram in the Annexure.

12. Cables

- All cables shall be supplied conforming to IEC 60227/ IS 694 & IEC 60502/ IS 1554. Voltage rating: 1,100V AC, 1,500V DC.
- **For the DC cabling, Solar cables with multi stranded copper conductors XLPE or XLPO insulated and sheathed with the voltage rating of 1500 V DC or higher UV stabilised single core flexible copper cables shall be used. Multi-core cables shall not be used.**
- For the AC cabling, PVC or XLPE insulated and PVC sheathed single or multi-core flexible copper cables shall be used. Outdoor AC cables shall have a UV-stabilised outer sheath.
- The total voltage drop on the cable segments from the solar **PV modules** to the solar grid inverter shall not exceed 2.0%.
- The total voltage drop on the cable segments from the **solar grid inverter** to the building distribution board shall not exceed 2.0%.
- 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 or through a High Density Poly Ethylene (HDPE) conduit. **The conduits shall not run across the path way of the terrace. Flexible corrugated PVC conduits shall not be used.**
- Cables and wires used for the interconnection of solar PV modules shall be provided with solar PV connectors (MC4) and couplers.
- **All cables and conduit pipes shall be clamped to the rooftop,walls and ceilings with thermo-plastic clamps at intervals not exceeding 50 cm.**
- The minimum AC & DC cable size shall be as per diagram enclosed.
- In three phase systems, the size of the neutral wire shall be equal to the size of the phase wires. The following colour coding shall be used for cable wires:
 - DC positive: **red** (the outer PVC sheath can be black with a **red** line marking)
 - DC negative: **black**
 - AC three phase: Phases: **red, yellow, blue**; neutral: **black**
 - Earth wires: **green**
- **Cables and conduits that have to pass through walls or ceilings shall be taken through a PVC pipe sleeve.**
- 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.

- Cable lugs and end –ferrules for all cable conductor and wire terminations shall be crimped with crimping pliers and end-ferrule pliers.
- All cable ties shall be UV resistant.

13. Earthing

- The PV module structure components shall be electrically interconnected and shall be grounded.
- 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.
- A dedicated earth electrode must be used for the earthing of DC side and AC side separately.
- 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.

14. Surge protection

- Surge protection shall be provided on both the DC and the AC side of the solar system.
- **The inverter shall not permit the surges transferred from A.C to D.C and vice versa by having suitable isolation mechanism . If the facility is not available internally, a suitable isolation transformer shall be additionally provided .**
- The DC surge protection devices (SPDs) shall be installed in the DC distribution box adjacent to the solar grid inverter.
- The AC SPDs shall be installed in the AC distribution box adjacent to the solar grid inverter.
- The SPDs earthing terminal shall be connected to earth through the above mentioned dedicated earthing system. The SPDs shall be of type 2 as per IEC 60364-5-53.

15. Lightning Protection

Lightning protection as per IS 2309 "Protection of Buildings and Allied structures against Lightning –code of practise" (second revision)(1989) shall be provided.

16. Junction Boxes

- Junction boxes and solar panel terminal boxes shall be of the thermo plastic type with IP 65 protection for outdoor use and IP 54 protection for indoor use.
- Cable terminations shall be taken through thermo-plastic cable glands. Cable ferrules shall be fitted at the cable termination points for identification.

17. Data Monitoring:

- a) For online monitoring, a data logging system shall be provided and the same shall be fixed at a reachable height.
- b) SIM based Data logging system shall be provided. The data storage facility has to be provided in the Inverter. The net charges will have to be borne by the installer till the completion of 3 year CMC period.

18. Tools, Tackles and Spares

- The 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:
- Screw driver suitable for the junction boxes and combiner boxes; Screw driver and / or Allen key suitable for the connectors, power distribution blocks, circuit breaker terminals and surge arrestor terminals;
- Spanners / box spanners suitable for the removal of solar PV modules from the solar PV module support structure;
- Solar panel mounting clamps;
- Cleaning tools for the cleaning of the solar PV modules, spare fuses

19. Caution Signs

In addition to the standard caution and danger boards or labels as per Indian Electricity Rules, the AC distribution box near the solar grid inverter and the building distribution board to which the AC output of the solar PV system is connected, shall be provided with a non-corrosive caution label with the following text:

WARNING – DUAL POWER SOURCE
EB & SOLAR

The size of the caution label shall be 105mm (width) x 20mm (height) with white letters on a red background.

Caution labels as may be prescribed by TANGEDCO shall be fixed as per TANGEDCO specifications.

20. Metering

The existing service connection meter shall be replaced by a net meter of adequate capacity. Net meter shall be supplied by TANGEDCO. The cabling /wiring up to meter location shall be done by the contractor. An isolation switch shall be erected near the meter for the purpose of safely/emergency need/maintenance.

Documentation

The Installer shall supply the following documentation:

- a) System description with working principles.
- b) System single line diagram.
- 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.
- 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 to be Furnished

Test Certificates / Reports from IECQ / NABL accredited laboratory for relevant IEC / equivalent BIS standard for quoted components shall be furnished. Type Test Certificates / reports shall be provided for the solar modules and solar grid tied inverters up to 20kW to provide evidence of compliance with standards as specified above. **For solar grid tied inverters above 20kW, self certification by the manufacturer of the said inverter is acceptable as specified in above.** TANGEDCO reserves the right to ask for additional test certificates or (random) tests to establish compliance with the specified standards.

Sd:24.08.2020/-
SUPERINTENDING ENGINEER,
KEDC/KARUR.

**SCHEDULE-A
PRICE SCHEDULE**

| Name of Material | Qty offered in Nos. Rs.p | Exworks price per No. Rs.p | Freight & Insurance charges per No. Rs.p | Packing & Forwarding charges per No. Rs.p | GST amount and percentage Rs.p | All inclusive price per No. Rs.p |
|--|-----------------------------|-------------------------------|---|--|-----------------------------------|-------------------------------------|
| (1) | (2) | (3) | (4) | (5) | (6) | (7) |
| EE/ O/Pugalur | | TO BE QUOTED ON LINE | | | | |
| Supply of entire Materials a) For 22 K WP | | | | | | |
| Erection, Testing, Commissioning and Maintenance for 3 years a) For 22KWP | | | | | | |

SPECIAL NOTE: The bidders are requested to quote the rates as per BOQ. If they are quoting EPF, ESI it should be included in basic price. This should be mentioned in commercial terms

COMPANY SEAL
DESIGNATION
COMPANY
DATE

SIGNATURE

| | |
|----------|--|
| NOTE 1 : | Rates quoted shall be both in Words & Figures |
| NOTE 2 : | In case of discrepancy between prices quoted in words and in figures, lower of the two will be taken for evaluation. |
| NOTE 3: | While quoting the rates the bidder shall indicate the HSN Code for all the tendered items as per GST Act. |

SCHEDULE – B1

DEVIATION FROM TECHNICAL SPECIFICATION

All technical deviations from the specification shall be filled in by the Tenderer, Clause by clause, in the Schedule.

| SECTION NO. | CLAUSE NO. | DEVIATION |
|--------------------|-------------------|------------------|
| | | |

The Tenderer hereby certifies that the above mentioned are the only deviations from the TECHNICAL Specification and the tender confirms to the specification in all other respects.

COMPANY SEAL:

SIGNATURE :

DESIGNATION :

COMPANY :

DATE :

SCHEDULE – B2

DEVIATION FROM COMMERCIAL TERMS

All deviations from the commercial terms shall be filled in by the Tenderer, Clause by clause, in the Schedule.

| SECTION NO. | CLAUSE NO. | DEVIATION |
|--------------------|-------------------|------------------|
| | | |

The Tenderer hereby certifies that the above mentioned are the only deviations from the Commercial terms of the Specification.

COMPANY SEAL:

SIGNATURE :

DESIGNATION :

COMPANY :

DATE :

SCHEDULE-C

STATEMENT OF SUPPLY ORDERS EXECUTED/ UNDER EXECUTION DURING
THE PRECEEDING 5 YEARS AS ON THE DATE OF TENDER.
(To be filled in by the tenderer)

| Sl No. | Name & Address of the Organization | Name of the material | P.O. No. & Date | Qty. In Km. | Value of order in Rs. Lakhs | Scheduled Date of completion of order | Actual Date of completion of order |
|--------|------------------------------------|----------------------|-----------------|-------------|-----------------------------|---------------------------------------|------------------------------------|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| | | | | | | | |

COMPANY SEAL

SIGNATURE :

DESIGNATION :

COMPANY :

DATE :

SCHEDULE - D

DECLARATION FORM

(To be signed by the tenderer)

Strike off, whichever is not applicable:

To

TO

THE SUPERINTENDING ENGINEER
KARUR ELECTRICITY DISTRIBUTION CIRCLE,
TNEB COMPLEX KOVAI RAOD KARUR

Dear Sir,

Having examined the above specification together with the accompanying schedules etc., we hereby offer to manufacture and supply the equipments/materials covered in this Specification at the rates entered in the attached BOQ.

1. We hereby guarantee the particulars entered in the schedules attached to the Specification.

2. In accordance with the Security cum Performance guarantee clause-9.0, Section-V, of the specification, we agree to furnish security cum performance in the form of DD/Bankers Cheque/Bank Guarantee to the extent of 5% of the order value (All-inclusive price) of each and every indent issued during the contract period till the expiry of the Guarantee.

3. Our company is not a potentially Sick Industrial Company or a Sick Industrial Company in terms of Section-23 of Section-15 of the Sick Industrial Companies (Special Provisions) Act, 1985.

Yours faithfully,

PLACE :

DATE :

COMPANY SEAL :

SIGNATURE :

DESIGNATION :

COMPANY :

SCHEDULE - E
GUARANTEED TECHNICAL PARTICULARS.

Guaranteed Technical Particulars for 22KWp

(To be filled by the bidder)

| SolarPVModule | | |
|----------------------|--|--|
| 1. | PV Module manufacturer name and Country | |
| 2. | PV Module type | |
| 3. | No.of PV cells per module | |
| 4. | Rated DC voltage of one module (Vmpp) | |
| 5. | Rated DC current of one module | |
| 6. | Open circuit voltage(Voc) | |
| 7. | Short circuit current(Isc) | |
| 8. | Peak power voltage(Vmp) | |
| 9. | Peak power current(Imp) | |
| 10. | DC rating of one module(Wp) | |
| 11. | Fill factor | |
| 12. | Mounting arrangement for Solar Module | |
| 13. | Temperature rise of solar cells under Severe working conditions over max. Ambient Temperature | |
| 14. | No. of strings connected per Inverter | |
| 15. | Weigh to each module(Kg) | |
| 16. | Solar Module frame material | |
| 17. | Module dimensions | |
| 18. | Cell efficiency | |
| 19. | Module efficiency | |
| 20. | Type test carried out in respect of Following tests: (Type test certificate must be enclosed with bid offer) : Bidder to mention Name of tests. | |

| | | |
|-----|---|--|
| | <u>StringInverter</u> | |
| 1. | Manufacturer name & country | |
| 2. | AC side Nominal AC power | |
| 3. | Output AC voltage | |
| 4. | Frequency | |
| 5. | Total Harmonic Distortion(Voltage) | |
| 6. | AC over /under voltage over/ under Frequency protection | |
| 7. | Phase shift(cosphi) | |
| 8. | DC side PV power | |
| 9. | Maximum DC voltage | |
| 10. | MPPT voltage range | |
| 11. | Maximum DC current | |
| 12. | DC over voltage protection | |
| 13. | DC voltage ripple | |
| 14. | Minimum efficiency | |
| 15. | Ambient temperature range | |
| 16. | Humidity(Non-condensing) | |
| 17. | Dimension approx.(HXWXD) | |
| 18. | Weight Contd... | |
| | AC and DC Cables | |
| 1. | Manufacturer's name and address | |
| 2. | Standard specification to which the Material shall confirm | |
| 3. | Type of cable | |
| 4. | Conductor details | |
| 5. | Type of sheathing i) Inner sheath ii) Outer sheat | |
| 6. | Type of armoring(ifany) | |
| | Others | |
| 1. | Capacity Utilisation Factor | |
| 2. | Monitoring system | |
| 3. | Earthing | |

MOUNTINGSTRUCTURE

| | | |
|----|----------------------------|--|
| 1. | Type | |
| 2. | Material | |
| 3. | Overall dimensions | |
| 4. | Coating | |
| 5. | Wind rating | |
| 6. | Tilt angle | |
| 7. | Number of Module structure | |

SCHEDULE-F
QUESTIONNAIRE-A

INSTRUCTIONS:

(a) Strike off, whichever is not applicable.

(b) Separate sheets should be used, wherever necessary:

CHECK LIST FOR BID QUALIFICATION REQUIREMENTS

(TO BE KEPT IN THE ENVELOPE-A "COMMERCIAL AND TECHNICAL BID)

| Sl.No | Particulars | Bidders'sresponse |
|-------|---|-------------------|
| 1. | Name and Address of the Firm/Company | |
| 2. | Address of the Registered office, Phone Nos. etc | |
| 3. | Address of the Factory/Works, Phone Nos. etc | |
| 4. | Fax No. for correspondence Name, Designation & Address of the person signing the tender | |
| 5. | (a) Confirm whether the tenderer is a manufacturer of the tendered material (b) If yes, whether documentary evidence is enclosed (c) If so, list the documentary evidence | Yes/No |
| 6. | Whether the bidder is old supplier to theTNEB | Yes/No |
| 7. | Whether the copies of orders executed during the Preceeding years in respect of materials tendered to State Electricity Boards/DISCOMs enclosed. | Yes/No |
| 8. | Whether performance certificates from the end users enclosed | Yes/No |
| 9. | Annual Turn over of the Bidder for the last three years 2013-14 2014-15 2015-16 | |
| 10. | a) Whether documentary evidence produced for the annual turn over b) If so, whether certificate from auditor furnished or copies of audited annual statement of accounts furnished | Yes/No |

DATE :

SIGNATURE OF THE TENDERER

PLACE:

NAME :

STATUS IN THE COMPANY
(AFFIX SEAL OF THE COMPANY)

CHECKLIST FOR COMMERCIAL TERMS.

(TO BE KEPT IN THE ENVELOPE-A “COMMERCIAL AND TECHNICAL BIDS)

| | | |
|--|---|---|
| | <p>EARNEST MONEY DEPOSIT:</p> <p>(i) Amount</p> <p>(ii) Mode of payment</p> <p>(iii) If exempted, state whether the bidder is</p> <p>(iv) If SSI unit state whether copy of duly attested Permanent Registration Certificate enclosed</p> <p>(v) Whether the material tendered is included in the certificate</p> <p>(vi) Validity of the permanent registration certificate</p> <p>(vii) Whether undertaking on a non judicial stamp paper of value not less than Rs.80/- (Rupees eighty only) enclosed in lieu of EMD</p> | <p>Rs.15000 / -</p> <p>DD/Bank Draft /</p> <p>Banker's Cheque,</p> <p>Permanent EMD /</p> <p>Undertaking</p> <p>SSI unit of Tamil Nadu/SSI unit registered with NSIC/</p> <p>Unit of Government of Tamil Nadu</p> <p>Yes/No</p> <p>Yes/No</p> <p>Yes/No</p> <p>Yes/No</p> |
| | <p>Whether the offer is valid for a period of 180 (One hundred and eighty) days from the date of opening of commercial/ Technical bids</p> | <p>Yes/No</p> |
| | <p>PRICE:</p> <p>i) Whether quoted firm price valid for the entire contract period</p> <p>ii) Whether the quoted price contain the following breakup price</p> <p>a) Unit ex-works price</p> <p>b) Unit Freight and Insurance charges</p> <p>(c) Unit GST applicable (Percentage and amount)</p> | <p>Yes/No</p> <p>Yes/No</p> <p>Yes/No</p> <p>Yes/No</p> <p>Yes/No</p> |
| | <p>iii) Confirm that the price quoted is after taking into account of the IT Credit benefit.</p> <p>iv) Whether the tenderer is agreeable in case of delayed delivery, the GST prevailing on the date of actual delivery or the GST applicable on the date of contractual delivery date whichever less shall only be payable.</p> | <p>Yes/No</p> <p>Yes/No</p> |
| | <p>viii) Confirm that Freight and Insurance charges quoted are applicable for delivery to Central stores/Karur including the unloading by the supplier.</p> | <p>Yes/No</p> |

| | | |
|--|---|---|
| | <p>Whether the tenderer is agreeable for the following clauses specified under Section V of the specification.</p> <p>i) Payment terms ii) Security Deposit cum Performance Guarantee iii) Delivery iv) Liquidated damages v) Guarantee vi) Jurisdiction for legal proceedings</p> | <p>Yes/No Yes/No Yes/No Yes/No Yes/No Yes/No</p> |
| | <p>Quantity offered.</p> | |
| | <p>Whether Income Tax Permanent Account Number (PAN) furnished</p> | <p>Yes/No</p> |
| | <p>(i) Whether copy of Sales Tax Clearance Certificate enclosed. If so, indicate the date Sales Tax Clearance certificate (ii) Whether registered for GST GSTIN No:</p> | <p>Yes/No Yes/No</p> |

SCHEDULE-F
QUESTIONNAIRE-B

CHECKLIST FOR TECHNICAL TERMS.

(TO BE KEPT IN THE ENVELOPE-A "COMMERCIAL AND TECHNICAL BIDS)

| Sl. No. | Particulars | Bidder's Response |
|------------|--|----------------------|
| | Whether the material offered is exactly as per technical specification of the TANGEDCO If not, give details of technical deviation in the deviation schedule B1 | Yes/No |
| | Whether all testing facilities for conducting of relevant tests and as per relevant IS or of the latest revision are available in your factory or not | Yes/No |

DATE :

PLACE:

SIGNATURE OF THE TENDERER

NAME :

STATUS IN THE COMPANY

(AFFIX SEAL OF THE COMPANY)

ANNEXURE-I

UNDERTAKING IN LIEU OF E.M.D.

(To be furnished in non-judicial stamp paper of value not less than Rs.80/-)

THIS DEED OF UNDERTAKING EXECUTED AT-----ON
THIS THE-----DAY OF-----TWO
THOUSAND by M/s.-----
hereafter called "Tenderer" (which expression shall where the context so admits
mean and include their Agents, Representatives, Successors-in-office and Assigns).

TO AND IN FAVOUR OF -----
THE TANGEDCO , a Body Corporate constituted under the Electricity (Supply) Act,
1948 (Central Act LIV of 1948) having its office at 1st floor, 5A block,144, Anna
Salai, Chennai – 600 002, herein called the "TANGEDCO" (which expression shall
where the context so admits mean and include its successors in office and Assigns).

WHEREAS THE tenderer is required to pay Earnest Money Deposit of
Rs-----for participation in the tender for supply of-----
-----in terms of specification No-----

AND WHEREAS the tenderer is exempted by the TANGEDCO from payment of
EMD in the form of cash, subject to the tenderer executing an undertaking to the
value of Rs.....(Rupees.....) representing the amount
equivalent to the amount of EMD specified to be paid to the TANGEDCO in the
event of non-fulfillment of breach of any of the conditions of the tender by the
Tenderer as mentioned hereunder.

AND WHEREAS in consideration of the acceptance by the TANGEDCO of the above
proposal, The tenderer has agreed to pay to the TANGEDCO the said amount
of Rs----- in the event of:-

- (1) Withdrawing his tender before the expiry of the validity period, OR
- (2) Withdrawing his tender after acceptance, OR
- (3) Violating any of the conditions of the tender issued by the competent
authority;

NOW THIS UNDERTAKING WITNESSES that in pursuance of the said agreement
the Tenderer hereby doth covenant with the TANGEDCO that in consideration of
the "TANGEDCO " waiving the condition of payment of EMD in cash in terms of the
said specification, the Tenderer has agreed to pay to the TANGEDCO
Rs..... only) in the event of :

- (i) Withdrawing his tender before the expiry of the validity period.
- (ii) Withdrawing his tender after acceptance.

(iii) Violating any of the conditions of the tender issued by the competent authority.

NOW THE CONDITION OF THE above written undertaking is such that if the tenderer shall duly and faithfully observe and perform the conditions specified as above, then the above written undertaking shall be void, otherwise it shall remain in full force.

The tenderer undertakes not to revoke this guarantee till the contract is completed under the terms of contract.

The expression, `tenderer' and the `TANGEDCO' hereinafter before used shall include their respective successors and assign in office.

IN WITNESS WHERE OF THIRU-----
acting for and on behalf of the Tenderer has signed this deed on the day, month and year herein before first mentioned.

SIGNATURE

NAME IN BLOCK LETTERS

SEAL OF THE COMPANY

In the presence of Witnesses:

1. Signature

Name & Address

ANNEXURE –II

UNDERTAKING TOWARDS JURISDICTION OF LEGAL PROCEEDINGS

This undertaking executed at.....on this.....
.....(Date)..... (Month) Two Thousand and
seventeen by M/s.....Registered under Companies Act,
1956 having its registered office at hereinafter called
the contractor (which expression shall where the context so admits mean and
include its successors in office and assigns) with the TANGEDCO a statutory
authority, a body corporate constituted as per provision of G.O.MS.No.100,
dt.9.10.2010, having its registered Office at No.144, Anna Salai, NPKRR Maaligai,
Chennai - 600 002 herein after called the purchaser (Which expression shall where
the context so admits means and includes its successors in Office and assigns.)

WHEREAS the contract is for the supply ofof terms of the Rate
Contract Order No.....dated.....AND WHEREAS in accordance
with Clause.....of the above said P.O. certain terms were stipulated for the
above supply.

AND WHEREAS in accordance with Clause..... of the above mentioned Rate
Contract Order the contractor has to furnish an undertaking that no suit or any
proceedings in regard to any matter arising in any respect under this contract shall
be instituted in any court other than in the High Court, Chennai City Civil Court of
Karur or other Court of small causes at Karur, as the case may be.

IN CONSIDERATION of the TANGEDCO having agreed to accept the undertaking
the Contractor hereby undertakes that no suit or any proceedings in regard to any
matter arising in respect of this contract shall be instituted in any Court, save in the
High Court, Chennai City Civil Court at KARUR or at the Court of small causes at
Karur. It is agreed that no other court shall have jurisdiction to entertain any suit
or proceedings, even though, part of the cause of action might arise within the
jurisdiction of any of the Courts in Tamil Nadu and rest within the jurisdiction of
Courts outside the Tamil Nadu, then it is agreed to between the parties that such
suits on proceedings shall be instituted in a Court within the State of Tamil Nadu
and no other Court outside the State of Tamil Nadu shall have jurisdiction even
though any part of the cause of action might arise within the jurisdiction of such
Courts.

INWITNESSWHEREOF of

Thiru..... of M/s.

..... hereby put his hand and seal
for due observance of the Undertaking in the presence of the following witnesses.

SIGNATURE WITH SEAL.

WITNESS :

- 1.
- 2.

ANNEXURE – III

Declaration to be submitted by the bidders in NJS paper of value not less than Rs.80/-

To

The Superintending Engineer (concerned),
TANGEDCO.

We hereby declare and confirm that we are registered vendor under GST Act having GSTIN _____ in State of _____. Our applicable GST% for the above reference job is under code _____.

We hereby declare and confirm that we are unregistered vendor under GST Act being turnover is less than Rs. _____ lakhs (being threshold limit) per annum. (For unregistered vendor, the vendor has to submit an affidavit in the enclosed format).

We hereby declare and confirm that we are registered vendor under composite scheme having GSTIN _____.

We are aware that as per sec 171 of CGST Act, any reduction in rate of tax on any supply of goods or services or the benefit of input tax credit should be passed on to TANGEDCO by way of commensurate reduction in prices and as such we hereby declare that we are extending Rs. _____ /- of _____ % as rebate in my awarded price against input tax credit benefit.

We hereby declare that we do not have any input tax credit benefit on account of GST applicable against this job. If it is established that we have availed input tax credit benefit against this job, the differential tax benefit will be returned to TANGEDCO failing which TANGEDCO may take appropriate action.

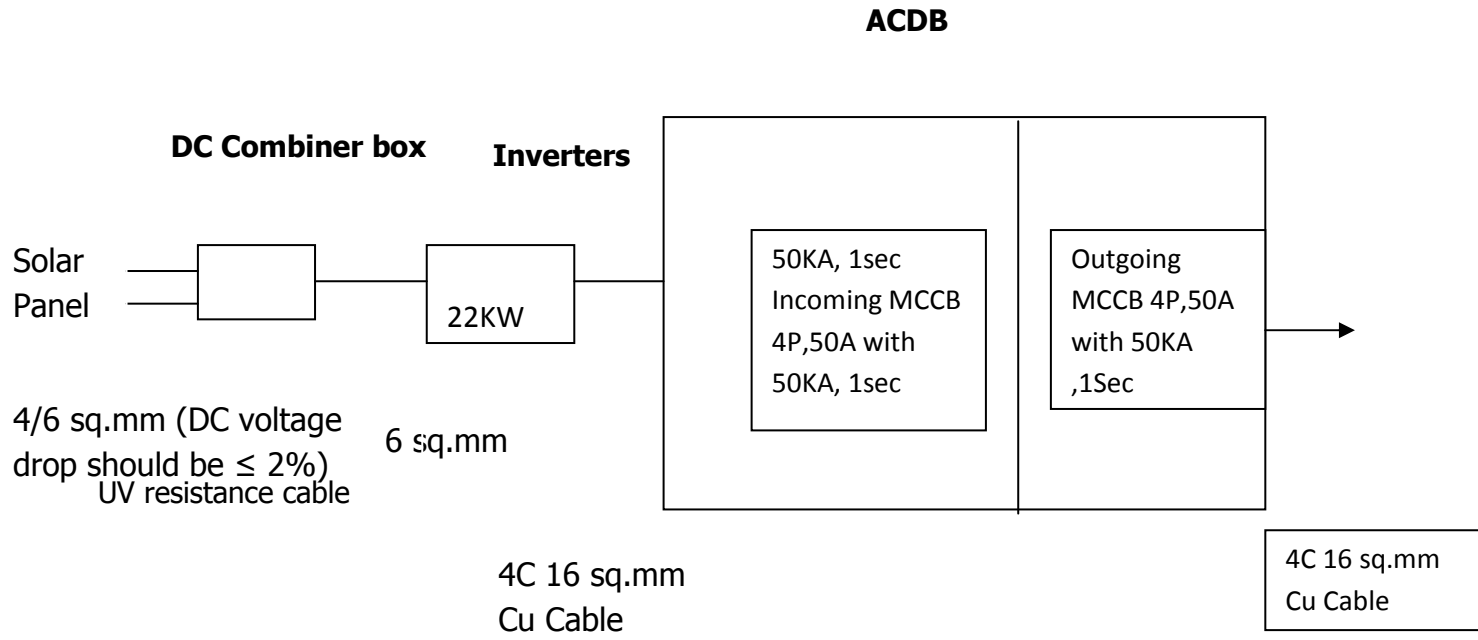
Signature of bidder with Company Seal.

Note:

Bidder may strike out the para not applicable

DRAWING

**Single Line Diagram For The Proposed Roof Top Solar Power Plant 22KWp
at 230/110KV Pugalur SS**



Sd:24.8.2020/-
SUPERINTENDING ENGINEER
KEDC/KARUR