

RFP Document for

***Design, supply, installation, testing & commissioning
of the Solar Street Lighting Systems with 5 years
warranty including operation & maintenance at
Balasamudra and Rayacherlu villages of Pavagada
taluk at Pavagada Solar Park under CSR funds of
KSPDCL.***

Tender Notification No: KSPDCL/F-209/2022-23/TTK-56

Date: 09-06-2022



KARNATAKA SOLAR POWER DEVELOPMENT CORPORATION LIMITED

(JV Company of KSPDCL, GoK and SECI, GoI)

2nd Floor, South Block, Beeja Raja Seeds Complex,

Bellary Road, Hebbala, Bengaluru-560 024.

Phone: 080- 22207851.

Fax: 080-22257399

Email:ceokspdcl@gmail.com

Website: <http://www.kspdcl.karnataka.gov.in>

KARNATAKA SOLAR POWER DEVELOPMENT CORPORATION

LIMITED (JV Company of KSPDCL, GoK and SECI, GoI)

2nd Floor, South Block, Beeja Raja Seeds Complex, Bellary Road, Hebbala
Bengaluru-560 024.

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**KARNATAKA SOLAR POWER DEVELOPMENT CORPORATION
LIMITED** (JV Company of KSPDCL, GoK and SECI, GoI)

2nd Floor, South Block, Beeja Raja Seeds Complex, Bellary Road, Hebbala
Bengaluru-560 024.

Tender Notification No: KSPDCL/F-209/2022-23/TTK-56 Date: 09-06-2022

e- TENDER NOTICE

The KARNATAKA SOLAR POWER DEVELOPMENT CORPORATION LTD. (KSPDCL), Corporate Office, Bengaluru-560 024 invites Electronic Bids from the eligible Bidders for the Work mentioned below, under Competitive Bidding. Tenders through Electronic Bids are invited for Design, supply, installation, testing & commissioning of the Solar Street Lighting Systems with 5 years warranty including operation & maintenance in Balasamudra and Rayacherlu villages of Pavagada taluk at Pavagada Solar Park under CSR funds of KSPDCL.

Tender Notification No: KSPDCL/F-209/2022-23/TTK-56 Date: 09-06-2022

The Schedule of Events as follows:

Sl No	Events	Date	Time
1	Bid documents through e-procurement portal, GoK will be available on or after	01.07.2022	11.00Hrs
2	Last date & time for seeking clarifications (ceokspdcl@gmail.com)	08.07.2022	17.00 Hrs
3	Due date of submission of Techno commercial bid and price bid as per RFP	18.07.2022	17.00 Hrs
2	Due date for hard copies submission (Power Of Attorney)	19.07.2022	17.00Hrs
3	Techno commercial bid opening except price bid.	20.07.2022	11.00 Hrs
4	Price bid opening	It will be intimated to Responsive Bidders	

Amount put to Tender :Rs.33,00,000/- (Rs. Thirty Three Lakh only)

EMD amount payable in e-portal only: Rs.66,000/- (Rs. Sixty Six thousand only)

- a) The bidders can view the tender details / download the details consisting of qualifying requirements, eligibility criteria of bidders, scope of the service to be provided and terms & conditions of contract to be compiled with from the website <http://eproc.karnataka.gov.in>.
- b) For further information, please contact **help desk phone number 080-23010900 / 23010901** of e-procurement department.
- c) The Chief Executive officer, KSPDCL reserves the right to accept / reject any or all the bids without assigning any reason thereof.

Sd/-
Chief Executive Officer

**KARNATAKA SOLAR POWER DEVELOPMENT CORPORATION
LIMITED** (JV Company of KSPDCL, GoK and SECI, GoI)

2nd Floor, South Block, Beeja Raja Seeds Complex, Bellary Road, Hebbala
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DETAILS OF E-TENDER NOTICE

E-tender is invited from solar PV system integrator/ solar PV component manufacturers in the country having valid test certificates from MNRE authorized test centers for the components of the PV system/ products for Design, supply, installation, testing & commissioning of the Solar Street Lighting Systems with 5 years warranty including operation & maintenance in Balasamudra and Rayacherlu villages of Pavagada taluk at Pavagada Solar Park under CSR funds of KSPDCL.

Amount put to Tender: **Rs. 33,00,000/-**

Sl. No	Item	Quantity (Nos)	Estimated Cost including GST and all other taxes and transportation etc.,Rs in Lakhs
1	Design, Supply, installation, testing and commissioning of the Solar Street Lighting System with 5 years warranty including operation & maintenance: PV module: 75 Wp under STC Battery: Minimum 12.8V, 30AH capacity Lithium Ferro Phosphate battery. 12 W white LED. Street light Pole.	134	Rs.33,00,000/- (Rs. Thirty Three Lakh only)

The bidders can view the tender details/download the details consisting of qualifying requirements, eligibility criteria of bidders, scope of the service to be provided and terms & conditions of contract to be compiled with from the website <http://eproc.karnataka.gov.in>.

For further information, please contact **help desk phone number 080-23010900 / 23010901** of e-procurement department or KSPDCL Phone Number: **080 - 22207851**.

The KSPDCL reserves the right to accept / reject any or all the bids without assigning any reason thereof.

Sd/-
Chief Executive Officer
KSPDCL

Check List of Documents

SI No	Particulars of Item	Status
1	Photo copy of valid GST clearance certificate	
2	Copy of audited balance sheet and profit and loss account between 2016-17 and 2020-21.	
3	Experience Certificate: Work completion Certificates for successful supply / completion of works carried out in the last three years as proof of experience and copies of Purchase orders/LOI/DWA.	
4	Certificate issued by the competent authority as proof of manufacturing / supply of the solar PV major products solar PV module/Batteries/ LED in case of bidder being manufacture/Supplier	
5	Photo copy of the Income Tax, PAN card of the company.	
6	Annexure - 01 to 10	
7	RFP bid document duly signed by authorized person at the bottom of each page.	
8	MOA/AOA/partnership deed	
9	Bankers Certificate and CA certificate	

PART-1: INFORMATION / INSTRUCTIONS AND CONDITIONS TO BIDDERS

1.0. Invitations for bids to appoint contractor:

KARNATAKASOLAR POWER DEVELOPMENT CORPORATION LTD. (KSPDCL), Corporate Office, Bengaluru-560 024 invites electronic bids from eligible bidders for the work mentioned below, under local competitive bidding. Tenders are invited for Design, supply, installation, testing & commissioning of the Solar Street Lighting Systems in Balasamudra and Rayacherlu villages of Pavagada taluk with **five years Warranty including operation & maintenance** as per the technical specifications and terms & conditions specified in the tender document.

2.0. Introduction:

- a) **Karnataka Solar Power Development Corporation Ltd. ("Authority"/ "KSPDCL")** incorporated under the Companies Act, 2013 as a joint venture company between Solar Energy Corporation of India (SECI), Govt., of India and Karnataka Renewable Energy Development Limited (KREDL), Govt., of Karnataka with 50% equity each has developed integrated 2050MW Solar Park at Pavagada in 5 villages of Nagalamadike Hobli, viz., Kyathaganacherlu, Valluru, Balasamudra, Thirumani & Rayacherlu and the park is in operation since December 2019.
- b) Solar Street Light system is designed for outdoor application in rural areas. This system is an ideal application for campus and village street lighting. The system is provided with battery storage backup sufficient to operate the light for 10-11 hours daily. The system is provided with automatic ON/OFF timer switch for dusk to dawn operation and overcharge / deep discharge prevention cut-off with LED indicators.

3.0. The Scope of the work

- 3.1** Design, Supply, installation, testing & commissioning of the Solar Street Lighting Systems with 5 years warranty including operation & maintenance in Balasamudra and Rayacherlu villages of Pavagada talukas per the technical specifications and terms & conditions specified in the tender document.
- 3.2** Bidder has to visit the site & analyze site conditions before quoting. The bidder has to design, manufacture & supply the materials so as to match with the site conditions for trouble free operations.
- 3.2.1** Successful Bidder has to carry out trouble free operation and maintenance of all the Solar Street Lights installed for five years from the date of commissioning until the expiry of warranty period.

3.3 After expiry of warrantee period of 5 years, all the Solar Street Lighting System shall be handed over to the village Panchayath for future maintenance.

3.3.1 The successful bidder should submit the following after implementation of project.

- All details of the installed systems like installation report, etc. in the formats to be provided at the time of issue of purchase order. The details will also include Photographic proof of delivery of the system to the concerned village, GPS location of the village.
- Hard and soft copies of photographs/video of Solar Street Lighting System installed.
- A Completion certificate from the concerned authorities (KSPDCL) shall be enclosed along with the bill.

4.0 Details of the proposed works:

4.1 Supply portion:

i. Solar street lighting system

A solar street lighting system as per this tender should comprise of a 75 Wp under STC solar PV module, Minimum 12.8V, 30AH capacity **Lithium Ferro Phosphate** battery, 12W white LED luminaire, control electronics, inter-connecting wires/cables, module mounting hardware etc. as specified in the technical specifications and should be able to provide solar electricity for operating **the lamp for dusk to dawn operation.**

ii. Balance of System (BOS)

The balance of system or BOS encompasses all components of a photovoltaic system other than the photovoltaic panels. This includes wiring, switches, support racks, an inverter, and batteries etc.

4.2 Installation portion:

- i.* The LED street lights shall be properly assembled and fixed rigidly at respective places & heights.
- ii.* All the new Solar Street Lighting Systems installed shall be tested for its proper functioning in village Panchayaths /KSPDCL representatives and handed over to Panchayath for future maintenance. A completion certificate from the concerned authorities (KSPDCL) shall be enclosed along with the bill.
- iii.* Beneficiary/village Panchayaths must be properly advised about his responsibilities in maintaining the system including cleaning of panel, luminaire etc. The beneficiary/village Panchayaths must also be given **a leaflet written in**

English and kannada language clearly mentioning about the installed system, maintenance requirement, do's and don'ts.

4.3 Maintenance Portion:

- i.* Successful Bidder has to carry out trouble free operation and maintenance of all the Solar Street Lights installed for five years from the date of commissioning until the expiry of warranty period.
- ii.* After expiry of warranty period of 5 years, all the Solar Street Lighting System shall be handed over to the village Panchayath for future maintenance.

5.0 General

- a. Collection of field data at Balasamudra and Rayacherlu villages of Pavagada taluk and district is required for designing of the system and its components.
- b. Procurement, fabrication and assembly of various components of the system.
- c. Supply of complete material at site as per specification.
- d. Installation, testing and commissioning as per the technical specifications.
- e. Arrangement of all the necessary spares required at site during the performance warranty period.
- f. Taking appropriate insurance covers for the period up to successful commissioning and until expiry of warranty period of the systems.
- g. The successful bidder has to keep the sufficient spares along with required manpower & other materials at the service centre for early attending of complaints as & when received from the field & also easy maintenance throughout the warranty period.

6.0 Performance warranty including operation and maintenance:

Warranty of all the Solar Street Lighting Systems & its other accessories supplied & commissioned for a period of **Five years** as performance warranty including operation and maintenance. A written guarantee, issued to the purchaser of an article by its manufacturer, promising to repair or replace it if necessary within a specified period of time.

7.0 Eligibility Criteria For The Bidder:

7.1 General Eligibility Criteria:

a. The Bidder should be either

- A company incorporated in India under the Companies Act, 1956 or 2013 including any amendment thereto **OR** proprietary firm **OR** Partnership firm.

A copy of certificate of incorporation shall be furnished along with the bid in support of above in case of company or partnership deed in case of partnership.

Note: Consortium is not allowed in this tender

- b.** The Bidder should be either a Solar PV System Integrator OR a manufacturer in India of at least one of the major components to be deployed in the Solar PV system i.e. Solar PV Module or Battery or Solar Lights.
- c.** The Bidder should have not been debarred/blacklisted by any Govt. Depts/ organization/ PSU's / institutions/ agencies/ autonomous Organizations. If any bidder provides false information regarding debarred / blacklisted or conceals the facts, KSPDCL/Nodal agency reserves the right to forfeit EMD/Performance Bank Guarantee of the bidder. In this regard self declaration shall be submitted/up loaded as Format provided in Annexure-6.
- d.** The Bidder should have valid **GST registration** certificate and PAN card. Copies of the same have to be uploaded.
- e. Power of attorney to authorize for signing the bid :**

In case of Bidder being a Company, Bidder shall upload the Power of attorney along with board resolution for this work only. **In case of Partnership firms, the bidder shall upload the Power of attorney along with partnership deed for this work only. In case of Proprietorship firms,** all the tender documents should be signed by the proprietor only and uploaded.

Note: Hard copies of POA (Company /partnership firms) shall be submitted to KSPDCL as per the RFP time schedule. Non submission of hard copies (POA) within time schedule of RFP/NIT shall be treated as Non Responsive by KSPDCL.

7.2 TECHNICAL ELIGIBILITY CRITERIA:

Types of Bidder	Solar PV system integrator	In case of Solar PV manufacturers
Technical Experience	<p>a) In the last 5 years (2016-17 to 2020-21) Bidder should have executed Similar & relevant works/rate contract for supply, installation & commissioning of solar inverter chargers, Solar Home Lighting Systems, Solar Pump, Solar Stand alone Street Lighting system and Solar Power Plants with battery & without battery of minimum solar capacity of 10KW(50% of tender solar panel capacity) in State Govt. organization or Central Govt. organization or any Govt. undertaking or any local bodies or any aided organizations or Govt. Universities or Corporations or autonomous bodies.</p> <p>b) The bidder should have executed at least one similar work as mentioned in 7.2(a) above of value not less than Rs.16,50,000/- (50% of amount put to tender) during the period 2016-17 to 2020-21.</p> <p>Note : works carried out may be of the type solar off-grid or on grid</p>	<p>a) In the last 5 years (2016-17 to 2020-21) the Bidder should have executed / supplied the Solar PV components for carrying out Similar & relevant works/ rate contract for installation & commissioning of solar inverter chargers, Solar Home Lighting Systems, Solar Pump, Solar Stand alone Street Lighting system and Solar Power Plants with battery & without battery to minimum solar capacity of 10KW(50% of tender solar panel capacity) in any State Govt. organization or Central Govt. organization or any Govt. undertaking or any local bodies or any aided organizations or Govt. Universities or Corporations or autonomous bodies.</p> <p>b) The bidder should have executed supplied at least one similar work/supplied as mentioned in 7.2(a) above of value not less than Rs.16,50,000/- (50% of amount put to tender) during the period 2016-17 to 2020-21.</p> <p>Note : works carried out may be of the type solar off-grid or on grid</p>
Documents to be uploaded as proof of technical experience	<p>i. LOI/DWA/work order, issued for the execution of the works as indicated in 7.2(a) & (b)</p>	<p>i. LOI/DWA/work order / Purchase order issued for the execution/supply of the works as indicated in 7.2(a) & (b).</p>

	<p>ii. The work satisfactory/commissioning certificate issued by the concerned organizations shall be at least 6 months prior to the date of Techno-Commercial Bid submission OR latest 6 months Joint Meter Reading report for the works as indicated in 7.2(a) & (b)</p>	<p>ii. The work satisfactory /commissioning certificate issued by the concerned organizations shall be at least 6 months prior to the date of Techno-Commercial Bid submission OR latest 6 months Joint Meter Reading report for the works as indicated in 7.2 (a) & (b)</p> <p>OR</p> <p>The satisfactory materials supplied certificate issued by the concerned organizations shall be at least 6 months prior to the date of Techno-Commercial Bid submission for the works as indicated in 7.2(a) & (b)</p>
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7.3 Financial Eligibility Criteria:

- a. The bidder should have achieved an average annual financial turnover of **Rs.33,00,000/-(Rupees thirty three lakh)** in atleast two financial years in the previous five preceding financial years, i.e., 2016-17, 2017-18, 2018-19, 2019-20 and 2020-21..
- b. The bidders shall upload audited balance sheet of applicable years issued from chartered accountant duly signed for verification of annual turnover i.e., between 2016-17 and 2020-21.
- c. The bidder should have positive net worth. In this regard CA certificate shall be uploaded.
- d. Bankers Certificate: Bidders shall upload the Bankers Certificate duly signed by Bank Manager.
- e. The liquid assets as on 31.03.2021 or at a later date i.e., on or before the last date of submission of the bids, consisting of **Cash at Bank + Term Deposits + Availability of credit facility (Fund Based)** in any **Nationalized / RBI approved Schedule Commercial Bank** shall not be **less than 9.9 Lakhs**.

Note: The Banker certificate issued by the bank duly signed by the manager shall be uploaded.

8.0 Description of Bidding Process.

- 8.1 The KSPDCL invites Bids from eligible “**Bidders**”, for selection of contractor for award of the contract.
- 8.2 The bids are invited and to be submitted through e-tendering on e-procurement portal only. The bid notification, bidding documents are available on "<http://eproc.karnataka.gov.in>".
- 8.3 **Obtaining Bid document:**
The tender documents can be downloaded through e-procurement portal only.
- 8.4 Bid due date for submission: As per NIT Schedule of events.
- 8.5 KSPDCL is not responsible for any Bank on line problems and e portal for submission of EMD by bidders in e-procurement portal.

9.0 Commercial Terms & conditions:

1 Bid Prices: The Bid Prices should indicate the **unit** cost of the system ((1) street lighting system) which shall be inclusive of all taxes and duties (GST) packing, forwarding, loading & unloading charges, cost of insurance, transportation to destination and installation & commissioning including operation and maintenance charges with five years warrantyetc.

2 Tax & Duties etc: Applicable as per GST Rule.

10.0 Bid Security / EMD:

10.1 Bid Security/EMD:

- a) Bids shall be accompanied by bid security/(EMD) for an amount of **Rs.66,000/- (Rs. Sixty Sixthousand only) through e-procurement portalonly.**
- b) The Earnest Money Deposit (EMD) shall be paid within the due date.
- c) Government/Quasi Government/Public Sector Undertakings/MSMEare**not exempted** from furnishing the Bid security/EMD.
- d) Deleted.
- e) Earnest Money Deposit paid by the unsuccessful Bidders and Non Responsive bidders will be returned after the issual of Detailed Work Award to successful bidder.
- f) EMD of the successful bidder will be released after submitting PBG (10% of the contract value) as per the scope of RFP.
- g) The deposit towards EMD shall not carry any interest.

10.2 Security Deposit/Performance BG

i. The successful bidder has to submit Ten percent (10%) of the contract value as Security Deposit in the form of Bank Guarantee from the **Nationalized Banks / RBI approved Schedule Commercial Banks** within 15 days from the date of issue of LOI. The PBG should be valid for a period of 62 months (**60 months warranty + 2 months claim period**) from the date of Completion Period. The Successful bidder has to execute the Contract Agreement with the KSPDCL within 20 days from the date of LOI after submitting the above performance guarantee within time schedule. A Detailed Work Award (DWA) will be issued after fulfilling the above formalities.

OR

- ii. **In case, the successful Bidder submit PBG valid** for 14 months(12 months + 2 month claim period) from the date of Completion Period it shall be renewed every year till the completion of the warranty period. In this regard an undertaking has to be submitted that the PBG will be extended every year before two months of PBG expiry date without any intimation from KSPDCL, otherwise KSPDCL will encash the PBG without notice.
- iii. This security deposit PBG will be released after successful completion of warranty **period of 5 years** as per tender scope.
- iv. This Bank Guarantee will be forfeited in case the successful bidder does not take up the project as per the tender conditions.
- v. In case the successful bidder fails to respond to submit security deposit BG within 15 days and to execute the agreement within the stipulated time of 20 (Twenty) days, the LOI will be cancelled and his EMD will be forfeited.
- vi. **Service centre:** The Successful Bidder shall have at least one Service Centre in Karnataka. The successful bidder should maintain the inventory of required spare parts at the service centre.

11.0 E-payment modes for Earnest Money Deposit (EMD)

The Bidder shall pay Bid Security/EMD amount of **Rs.66,000/- (Rs. Sixty Six thousand only)** through E-Procurement portal only, through any one of the following e-Payment options only.

Online payments:

1. Credit Card
2. Direct Debit
3. Internet Banking

Offline payments:

4. Remittance at the Bank Counter using challan (ICICI Bank only)
5. NEFT/RTGS

Note:

- i. Please note that payment submitted through cheque or demand draft shall not be accepted for this project.
- ii. **KSPDCL shall not be held responsible in case of failure on part of the Bidder to furnish the Bid Security through E-Procurement Website or for rejection of Bids by E-Procurement for whatsoever reasons. No correspondence shall be entertained by KSPDCL in this regard.**
- iii. In e-procurement portal, bidder has the option of withdrawing the bid by digitally signing to “**withdraw/cancel bid**” before the bid submission date/time.
- iv. For further details regarding e-payment, please refer to E-Procurement website.
- v. Support Timings: (10.00 am to 5.00 pm)

Help Desk:

Phone No. 080-22207851(Or)Contact: e-procurement helpdesk – 080-23010900 /01 (Or) +91-803801300(Or)E-mail: hphelpdesk.blr@intarvo.com

12.0 Language of the Bids:

The bid submitted by the bidder and all correspondence and documents relating to the bid shall be written in the English language.

13.0 Mode of submission of bids and documents to be uploaded on the e-procurement portal separately Part-I & Part-II:

Part -I: “Techno-Commercial Bid”in electronic mode to be uploaded with the following documents duly signed with seal by authorized personnel and the scanned copy of the same shall be uploaded on the e-procurement portal **as Part-I: Techno Commercial-Key Submissions**

- a. Scanned copy of the Power of Attorney for signing of Bid in the prescribed format in case of company/partnership firm or In case of Proprietorship firms, all the tender documents should be signed by the proprietor only and uploaded.
- b. A copy of certificate of incorporation shall be uploaded furnished along with the bid in support of above in case of company or partnership deed in case of partnership.
- c. A copy of Memorandum and Articles of Association of the Bidder incase of company.
- d. Scanned copy of the Bankers Certificate.
- e. Scanned copy of the Commissioned/Completion certificate.
- f. **Scanned copy of the annual turnover certificate along with audited balance sheets for the preceeding last 5 years 2016-17 to 2020-21. Format provided in Annexure-4.**
- g. Scanned copy of the Anti Collusion Certificate in the format provided in Annexure-5.

- h. Scanned copy of the Anti Blacklisting Affidavit in the format provided in Annexure-6.
Note: Bids received without above key submission documents will be treated as Non Responsive.

Part -II: "Price bid / financial bid" in electronic mode shall be in e-procurement portal only.

The "Financial Bid" of the Bidder shall be submitted only through E-Procurement Website. This shall be uploaded at the slot provided for Financial Bid only. If the price is disclosed anywhere else, the bid will be rejected.

14.0 Bid opening date:

Part-I: Techno-Commercial Bid: As per NIT time schedule.

Part-II: Price Bid opening: As per NIT time schedule.

The price bids of those bidders whose Techno - Commercial Bids are found to be **responsive**, will be opened under intimation to the qualified bidders, either by regular mail or by e-mail.

NOTE: Price Bids of Non - Responsive bidders will not be opened.

15.0 Process / methodology of bid evaluation and awarding of the contract:

15.1 Techno Commercial Bid Evaluation:

- a) Non Submission of Hard Copies of POA within time schedule to KSPDCL will be treated as Non Responsive.
- b) Non submission of technical and financial criteria documents as intimated in RFP bids will be Non Responsive.
- c) Technical bids will be evaluated by KSPDCL taking into account the qualifying requirements & completeness of the offer, as per the bid document.
- d) The "Financial bids" of only Responsive bidders shall be opened, who qualify in "Technical evaluation".
- e) The bids of those bidders whose technical bids are found to be responsive shall be informed about the date and time for opening their price bids giving sufficient time for the bidders to be present at the time of opening, if they so desire.
- f) The bidder whose proposal does not meet the qualifying requirements or were considered technically non-responsive to the terms of reference, their price bids will not be opened.

15.2 Price Bid Evaluation

- a) The price bids of the technically qualified / responsive bidders will be opened by KSPDCL at a predetermined date.
- b) KSPDCL will review the price bid proposals. Arithmetical errors will be corrected and lowest financial bidder will be awarded the contract.

16.0 Bid Validity:

The bidders are requested to submit their bids in accordance with the bidding documents. The bid shall be valid for a period of not less than **180 (One hundred and eighty) days** from the date of deadline for submission of tenders (original or extended as the case may be). A tender valid for a shorter period shall be rejected by the KSPDCL as non-responsive.

17.0 Amendments to Bid Document:

Before the deadline for submission of tender the KSPDCL may modify the tender document by issuing addendum. Any amendments issued subsequent to the notification, but before the bid due date, will be deemed to form part of the bidding documents.

18.0 Award of contract:

- a) The successful bidder will be issued letter of intent (**LOI**).
- b) The successful bidder to accept the contract and communicate its acceptance within 7 days of the **LOI** and to submit the PBG of 10% of contract value to KSPDCL within 15 days from the date of LOI and shall execute the contract agreement with KSPDCL within 20 days from the date of LOI duly submitting the PBG within time schedule.
- c) The Detailed Work Award (DWA) for the work will be awarded to the successful bidder/contractor after submission of 10% of contract value in the form of PBG and executing the contract agreement.
- d) In case the successful bidder fails to execute the work after issue of DWA, the security deposit/PBG will be en-cashed and also EMD will be forfeited.
- e) In case the successful bidder does not communicate his acceptance within 7 days, the next lowest bidder will be issued **LOI** or tender will be cancelled.

19.0 Terms of Payment / Mode of payment:

19.1 Payment terms :

- Seventy percent (70%) of the total contract value will be paid after successful commissioning/completion of the Solar Street Lighting System project in Balasamudra and Rayacherlu village of Pavagada Taluk. The entire work shall be completed in all respect & tested for its proper functioning in the presence of village panchayaths of Balasamudra and Rayacherlu villages and KSPDCL representatives.

- 5% of amount will be released after 1 year from the date of issuance of commissioning/completion of Work Certificate.
- 5% of amount will be released after 2 years from the date of issuance of commissioning/completion of Work Certificate.
- 5% of amount will be released after 3 years from the date of issuance of commissioning/completion of Work Certificate.
- 5% of amount will be released after 4 years from the date of issuance of commissioning/completion of Work Certificate.
- 5% of amount will be released after 5 years from the date of issuance of commissioning/completion of Work Certificate or until expiry of warranty period including the operation and maintenance period whichever is later and
- Balance 5% of amount will be released after expiry of warranty period including the operation and maintenance period or the date of handing over to the village Panchayath for future maintenance whichever is later.

The following documents shall be furnished along with the bill for arranging payments.

- a) Joint inventory report to ascertain the actual quantity of the materials used for the works & their working conditions.
- b) Commissioning certificate issued by KSPDCL representative.
- c) Satisfactory operation and maintenance certificate issued by KSPDCL representative after completing each anniversary of O&M period.
- d) Producing the invoice in duplicate along with the above documents to KSPDCL.

The payment shall be made as per the actual quantity of Solar Street Lighting System installed & commissioned at site.

20.0 Completion period / Time schedule:

The work of Design, supply, installation & commissioning of all the Solar Street Lighting System shall be completed within **4months** (Four) from the date of handover of work front.

21.0 Extension of time

If bidder requires an extension of time beyond the project completion date (plus any additional period to which the bidder is entitled to on payment of liquidated damages) for reason which are beyond his control, bidder shall apply in writing for extension on occurrence of hindrance but not after the stipulated project completion date. The authorized representative of KSPDCL shall extend the project completion date if he is satisfied that the delay in performance of bidder's obligation is due to reasons beyond his control.

22.0 Pre Bid Queries:

All queries shall be sent only to e-mail: ceokspdcl@gmail.com on or before the time stipulated in NIT Time Schedule. Format Provided in Annexure-10

Part-2: GENERAL CONDITIONS OF CONTRACT

1. GENERAL

1.1 In the deed of contract unless the context otherwise requires:-

- a) **"KSPDCL"** shall mean the Chief Executive Officer or his representative of Karnataka Solar Power Development Corporation Limited, 2nd Floor, South block 2, Beeja Raja Seeds complex, Hebbal Bengaluru and shall also include its successors in interest and assignees.
- b) **"The Successful Bidder"** shall mean the person whose tender has been accepted by KSPDCL and shall include his legal representatives, successor in interest and assignees.
- c) **"The Successful Bidder"** shall be deemed to have carefully examined all the papers, drawings etc. attached to the contract deed. If he/she/they shall have any doubt as to the meaning of any portion or any condition (s)/specifications etc., he/she/they should before signing the contract set forth the particulars thereof and submit them to KSPDCL in order that such doubt(s) may be removed.
- d) **"The Contract"** means the **"Agreement"** entered into between KSPDCL and Successful Bidder/contractor as per the contract agreement signed by the parties including all attachments and appendices there to and all documents incorporated by reference therein.
- e) **The Agreement shall be on rate contract basis.** In case the successful bidder / contractor fails to execute the said work within stipulated time, KSPDCL will be at liberty to get the work executed from the open market without calling any tender and without any notice to the successful bidder / contractor firm, at his risk and cost. Any additional cost incurred by KSPDCL shall be recovered from the successful bidder / contractor. If the cost of executing the work as aforesaid shall exceed the balance due to the successful bidder / contractor fails to make good the additional cost, KSPDCL may recover it from the successful bidder / contractor pending claims against any work in KSPDCL or by en cashing PBG or in any lawful manner.
- f) **"Sub-Contractor"** shall mean the persons named in the contract for any part of the works or any persons to whom any part of the contract has been sublet by the **Bidder** with the consent in writing of the **KSPDCL** and will include the legal representatives, successors and permitted assignees of such persons.
- g) **"Engineer"** shall mean the officer appointed in writing by the **KSPDCL** to act as engineer from time to time for the purposes of this Contract.
- h) **"Consulting Engineer"** shall mean any Firm or Persons duly appointed as such from time to time by the **KSPDCL**.

- i) The terms **'Equipments' 'Stores' and 'Materials'** shall mean and include equipment, stores and materials to be provided by the contractor under the contract.
- j) **"Works"** shall mean and include supplying of equipment/material in the scope of the contractor and extending all services, as per the specifications and complete erection, testing and putting into satisfactory operation including all transportation, handling, unloading and storage at the site as defined in the contract.
- k) **"Specifications"** shall mean the specifications and bidding document forming a part of the contract and such other schedules and drawings as may be mutually agreed upon.
- l) **"Site"** shall mean and include the land and other places on, into or through which the works and the related facilities are to be erected or installed and any adjacent land, paths, street or reservoir which may be allocated or contractor in the performance of the contract.
- m) The term **"Contract Price"** shall mean the lump sum price quoted by the contractor in his/her/their bid with additions and/or deletions as may be agreed and incorporated in the letter of award, for the entire scope of the works.
- n) The term **"Equipment/ Material Portion"** of the contract price shall mean the total value of the equipments including all type of taxes & duties, freight & insurance etc.
- o) **"Manufacturer's Works"** or **"Contractor's Works"**, shall mean the place of work used by the contractor, their collaborators/ associate or sub-contractors for the performance of the contract.
- p) **"Inspector"** shall mean the owner or any persons nominated by the owner from time to time, to inspect the equipment, or works under the contract and/or the duly authorized representative of the owner.
- q) **"Notice of Award of Contract"/ "Letter of Award" / "Fax of Award"/ "Detailed Work Award"** shall mean the official notice issued by the owner notifying the contractor that his/her/their bid has been accepted.
- r) **"Date of Contract"** shall mean the date on which successful bidder shall execute the contract agreement with KSPDCL **within 20 days from the date of LOI.**
- s) **"Month"** shall mean the calendar month. "day" or "days" unless herein otherwise expressly defined shall mean calendar day or days of 24 hours each. **"A Week"** shall mean continuous period of seven (7) days.
- t) **"Writing"** shall include any manuscript, type written, fax, computer generated or printed statement, under or over signature and/or seal, as the case may".
- u) **'Equal to', 'Proper', 'Requested', 'As Directed', 'Where Directed', "When Directed", "Determined by", "Accepted", "Permitted"**, or words and phrases of like importance are used, the approval, judgment, direction etc is understood to be a function of the **owner/engineer.**

v) **“Test on Completion”** shall mean such tests as prescribed in the contract to be performed by the contractor before the work is taken over by the **KSPDCL**.

2. Standards:

The materials used for the work under this contract shall conform to the standards mentioned in the technical specification and when no applicable standard is mentioned, to the authoritative standard appropriate to the materials and such standards shall be the latest issued by the concerned Institution.

3. The successful bidder / contractor shall have to comply with all the rules, regulations, laws and by-laws for the time being enforced and the instructions if any, of the organization, in whose premises the work has to be done. KSPDCL shall have no liabilities in this regard.
4. The high court of judicature at Bengaluru shall alone have jurisdictions to the exclusion of all other courts.
5. The successful bidder shall not transfer, assign or sublet the work under this contract or any substantial part thereof to any other party without the consent in writing of KSPDCL.
6. KSPDCL shall have at all reasonable time, access to the work being carried out by the supplier firm under this contract. All the works shall be carried out by the successful bidder to the satisfaction of KSPDCL.
7. If any question, dispute or difference whatever arises between the KSPDCL and the successful bidder in connection with the agreement except as to matter the decision for which has been specifically provided, either party may forthwith give to the other, notice in writing of the existence of such dispute or difference and the same shall be referred to the sole arbitration of KSPDCL or any person nominated by KSPDCL will act as sole arbitrator and arbitration shall be held in accordance with the provisions of arbitration and conciliation act 1996 and rules made there under. The award of the arbitrator shall be final and binding on the party and work under the agreement shall unless the arbitrator otherwise directs will continue during the arbitration proceedings.
8. KSPDCL may at any time, either stop the work all together or reduce or cut it down by sending notice in writing to the successful bidder. If the work is stopped all together, the successful bidder will only be paid for work done and expenses distinctly incurred by him as on preparation or the execution of the work up to the date on which such notice is received by him. Such expenses shall be assessed by KSPDCL whose decision shall be final and binding to the successful bidder. If the work is cut down, the supplier firm will not be paid any compensation whatsoever for the loss of profit which he might have made if he had been allowed to complete all the work included in the contract.

9. INSPECTION AND TESTS

The following inspection procedures and tests are required by the KSPDCL in the presence of KSPDCL's representative if so desired by KSPDCL. The KSPDCL or its representative shall

have the right to inspect and /or to test the materials to confirm their conformity to the contract. All the tests shall be carried out as per the prevailing MNRE standards applicable for Solar Street light systems.

9.1 Inspection of works:

- a) The KSPDCL or his duly authorized representative shall have at all reasonable times access to the manufacturer's works and shall have the power at all reasonable times to inspect all the energy efficient electrical gadgets, accessories and sub assemblies, examine the materials and workmanship of the works during its manufacture.
- b) **In case the manufacturing unit of bidder is situated outside Bengaluru city, all logistics arrangements shall be made by the bidder at his cost.**
- c) Pre-delivery inspection at the factory site if necessary will be carried out by KSPDCL.
- d) Post installation verification shall be conducted by KSPDCL at any point of time after receipt of installation report.
- e) The KSPDCL shall give notice in writing to the Successful Bidder of any objection to any drawings and all or any equipment and workmanship, which in its opinion is not in accordance with the contract. The successful bidder shall give due consideration to such objections and shall either remove such objections or shall make the modification that may be necessary to rectify the said objection or shall confirm in writing to the purchaser/ Inspector giving reasons therein that no modifications are necessary to comply with the contract.
- f) **Routine /Acceptance Tests:**
 - The routine and acceptance tests of all the materials shall be conducted in presence of the KSPDCL representative as per the prevailing MNRE standards unless inspections are waived and obtain dispatch instructions from KSPDCL before dispatch of materials to site for erection.
 - The acceptance of the quality of material shall in no way relieve the supplier of his responsibility for meeting all the requirements of the specifications and shall not prevent subsequent rejection, if such materials are later found to be defective.

9.2 The inspection by KSPDCL and issue of dispatch instruction thereon shall in no way limit the liabilities and responsibilities of the supplier firm in respect of the agreed quality assurance programme forming a part of the contract. Nothing in clause 9.1 shall in any way relieve the successful bidder from any warranty or other obligations under this contract.

10. GUARANTEE& PERFORMANCE WARRANTY

10.1 QUALITY:

The Successful Bidder shall guarantee as per standards for quality that anything to be furnished shall be free from all defects and faults in material and workmanship. The manufacture shall be of the highest grade and consistent with established and generally accepted standards. The material of the type ordered, shall be in full conformity with the specifications, drawing or samples if any and shall operate properly, if operable.

10.2 In addition to the guarantee as already provided, the successful bidder shall warrant satisfactory performance of the equipment and shall be responsible for any defects that may develop for the period or up to the date specified in **sub clause10.3**. If Such defects are detected, they shall be addressed/removed at his own cost by the successful bidder when called upon to do so by the KSPDCL/concerned village Panchayath representatives.

10.3 The performance warranty period and operation and maintenance period shall be **Five Years from** the date of commissioning.

10.4 The successful bidder shall rectify defects developed in any Solar Street Lighting System during thewarranty period, within 2 (two) days of occurrence of any fault intimated to him in writing/ e-mail/mobile text messages/ telephone message. **For delays beyond 2 days a penalty will be effective @ 1% of contract cost per week** w.e.f. time of complaint informed to him by writing/by means of e-mail/fax/telephone message. In case the successful bidder does not rectify the defects within 2 days, KSPDCL shall have full liberty to restore the system in working condition. The expenditure so incurred by KSPDCL shall be deducted from the successful bidder's pending claims, performance warranty or in other lawfull manner.

11. Penalty for the Delay in completion / Liquidated damages:

11.1 **The bidder shall clearly note that time is the essence of the contract. The work including supply, installation, testing & commissioning of Solar Street Lighting System as per the scope of the work shall be completed within the stipulated period of within 4months (Four)from the date of Signing of Contract Agreement. However, early completion of the works is highly appreciable.**

11.2 If the successful bidder fails to complete the work within the stipulated time periods specified in the contract, the KSPDCL shall without prejudice to its other remedies under the contract, deduct from the contract price as liquidated damage, **a sum equivalent to 0.5% of the contract price for each week of delay, subject to a maximum of 10% of the total contract value. If the "extension of time" is allowed under Force Majeure the penalty will not be applicable.**

11.3 The KSPDCL has got every right to terminate the contract without any liability if total penalty crosses 10% of the contract value.

12. Notices, statements and other communications sent by KSPDCL through registered post or telegram or e-mail or fax to the successful bidder / contractor at his specified addresses shall be deemed to have been delivered to the successful bidder.

13. **Any work, which is not covered under this contract, but is essentially required for the completion of job to the satisfaction of KSPDCL shall be carried out by the successful bidder without any extra cost to KSPDCL.**

14. The successful bidder shall not display the photographs of the work and not take advantage through publicity of the work without written permission of KSPDCL.

15. PATENT RIGHT AND ROYALTIES:

The successful bidder shall indemnify the KSPDCL against all third party claims of infringement of patent, royalties' trademark or industrial design rights arising from use of the goods or any part thereof.

16. PACKING & FORWARDING

16.1 The successful bidder, wherever applicable shall properly pack and crate all Solar Street Lighting System in such manner so as to protect them from deterioration and damage during rail and road transportation to the site and storage at the site till time of installation. The successful bidder shall be held responsible for all damage due to improper packing / transportation / loading /unloading /installation / commissioning.

16.2 The successful bidder shall inform the concerned designated project officers of KSPDCL regarding the date of each shipment from his works, and the expected date of arrival at the site, at least 7 days in advance.

17. DEMURRAGE WHARFAGE, ETC

All demurrage and other expenses incurred due to delayed clearance of the material or any other reason shall be on the account of the successful bidder / contractor.

18. INSURANCE

The goods supplied under the contract shall be fully insured against loss or damage incidental to manufacture or acquisition, transportation and the expenses in this regard shall be deemed to have been included in the bid price.

19. TRANSPORTATION

The successful bidder is required to deliver the goods to the concern sites mentioned in the work order. No expenses regarding transportation up to site will be paid to the supplier firm.

20. TERMINATION FOR INSOLVENCY

KSPDCL may at any time terminate the contract by giving written notice to the successful bidder without compensation to the successful bidder, if it becomes bankrupt or otherwise insolvent, provided that such termination will not prejudice or affect any right of action or remedy, which has accrued or will accrue thereafter to the KSPDCL.

21. TERMINATION FOR CONVENIENCE

The KSPDCL may send written notice to the successful bidder; terminate the contract, in whole or in part at any time for its convenience. The notice of termination shall specify that termination is for the purchaser's convenience in the interest of KSPDCL.

22. APPLICABLE LAW

The contract shall be interpreted in accordance with the laws of the purchaser's / owner's country i.e. India. The station of KSPDCL, Head Office, Bengaluru shall have exclusive jurisdiction in all matters arising under this contract.

23. NOTICE

Any notice given by one party to the other pursuant to the contract shall be sent in writing or by telegram or telex/cable and confirmed in writing to the address specified for that purpose. A notice shall be effective when delivered or on the notice's effective date, whichever is later.

24. TAXES & DUTIES/ GST :

24.1 Notwithstanding anything stated elsewhere in the bid documents, the contract to be entered into will be treated as a DIVISIBLE CONTRACT resulting into two separate contracts, first one for supply of goods and the second for erection.

24.2 All levies, Goods Service Tax (GST) etc., payable on equipment/material components, sub-assemblies, raw materials and any other items used for the contractor's consumption or dispatched directly to the works spot from the sub-supplier, and erection works shall be included in the bid price and any such taxes, duties, levies etc., not considered by the bidder but payable as applicable on the date of bidding shall be to bidder's account and no separate claim on this behalf shall be entertained by the owner.

24.3 *The bidder shall specify all taxes and duties* (including the work contract tax, if applicable). Any tax payable on the cost of the items of supply under the contracts shall also be included by the bidder in his bid price and the owner shall have no liability whatsoever in respect of such contract tax. **However, the owner will deduct works contract tax if applicable out of the contractor's bills and remit the same to the**

concerned authorities as per statutory stipulations. Necessary TDS certificates will be issued to the contractor.

- 24.4** The owner will deduct applicable taxes at source as per law from the proceeds payable to the contractor.
- 24.5** Service tax applicable if any shall be borne by the service provider and not by KSPDCL.
- 24.6** As regards the income tax, surcharge on income tax and any other corporate tax, the owner shall not bear any tax liability whatsoever. The bidder shall be liable and responsible for payment of such taxes as mandated under the provisions of the law.
- 24.7** Notwithstanding anything stated in the **Sub-Clause 24.2 to 24.6** above, the owner shall have the right to make deduction at source from the amounts payable to the contractor against this contract in respect of any tax liability as may be mandatory in terms of the law. The owner shall not bear any liability in this regard but shall issue necessary TDS certificate in respect of such deductions made.
- 24.8** No claim for any increase towards the statutory variation regarding enhancement of existing tax or duty or introduction of a new tax or duty applicable shall be entertained by the owner during the extended period of contract, if any, if the extension of the contract is required due to the causes attributable to the contractor.
- 24.9** Before quoting, the bidder shall ascertain from the concerned tax authorities of government of Karnataka, the applicability of work contract tax, service tax etc. in respect of this tender and include the same in the quoted price. No separate claim in this regard will be entertained by the owner, as it is the responsibility of the bidder to pay all these taxes.
- 24.10** **Difference of statutory payments / introduction of new taxes or levies after the bid submission date shall be to the account of the owner as amended by the appropriate authorities from time to time. However, it is the responsibility of the bidder to pay all these taxes to the concerned departments.**

25. QUANTITY VARIATION:

KSPDCL may vary the **quantity of material** mentioned in scope of work to an extent of ± 25 %. The quantity variation will be confirmed at the time of the issue of Detailed Work Award (DWA).

26. Price Basis:

26.1 The price quoted shall remain fixed and firm during the period of contract and shall not be subject to change due to any increase in price of material or equipments as per the scope of the work.

26.2 The quoted unit price & total price should include all applicable duties and taxes etc.,.

26.3 The price for erection, testing and commissioning including all applicable taxes thereon, price for other services it proposes to furnish under the contract including all applicable taxes thereon.

26.4 The quoted price should include transportation charges including handling charges and other costs incidental to delivery of the goods to their final destination and insurance charges.

26.5 The quoted erection charges should include the cost of erection, testing and commissioning including all applicable taxes thereon.

26.6 The quoted price should include warranty charges and operation and maintenance charges for a period of 5 years from successful commissioning of the solar street lights including handling charges and other costs incidental thereto.

27. Even though the bidder meets the qualifying criteria, they are subject to be disqualified if they have:

- i. Made misleading or false representation in the forms, statements and attachments submitted in proof of the qualification requirements; and /or
- ii. Record of poor performance such as abandoning the works, not properly completing the contract, inordinate delays in completion, litigation history, or financial failures etc.; and /or
- iii. Participated in the previous tender for the similar work and quoted unreasonably high tender prices and could not furnish rational justification.

27. In case of death of contractor/ successful bidder after executing the agreement/ commencement of the work his legal heir if an eligible contractor and willing can execute and complete the work at the accepted tender rates irrespective of the cost of the work.

28. Force Majeure:

“Force Majeure” shall mean any event beyond the reasonable control of KSPDCL or of the Contractor, as the case may be, and which is unavoidable notwithstanding the reasonable care of the Party affected.

A ‘Force Majeure’ means any event or circumstance or combination of events those stated below that wholly or partly prevents or unavoidably delays an Affected Party in the performance of its obligations under this Agreement, but only if and to the extent that such events or circumstances are not within the reasonable control, directly or indirectly, of the Affected Party and could not have been avoided if the Affected Party had taken reasonable care or complied with prudent utility practices:

- a) Act of God, including, but not limited to lightning, drought, fire and explosion (to the extent originating from a source external to the Site), earthquake, volcanic eruption, landslide, flood, cyclone, typhoon or tornado;
- b) Any act of war (whether declared or undeclared), invasion, armed conflict or act of foreign enemy, blockade, embargo, revolution, riot, insurrection, terrorist or military action;
- c) Radioactive contamination or ionising radiation originating from a source in India or resulting from another Force Majeure Event mentioned above excluding circumstances where the source or cause of contamination or radiation is brought or has been brought into or near the Power Project by the Affected Party or those employed or engaged by the Affected Party.
- d) Any event of above Force Majeure affecting evacuation of power from the Facility to the grid.

The supplier of the SPV system shall not be charged with liquidated damages nor shall his security for performance be forfeited when failure of the supplier in making delivery is due to any Force Majeure Events.

Force Majeure Exclusions Force Majeure shall not include

- (i) any event or circumstance which is within the reasonable control of the Parties and
- (ii) the following conditions, except to the extent that they are consequences of an event of Force Majeure
 - a) Unavailability, late delivery, or changes in cost of the plant, machinery, equipment, materials, spare parts or consumables for the subject scope of work;
 - b) Delay in the performance of by contractor, Sub -contractor or their agents;
 - c) Non -performance resulting from normal wear and tear typically experienced in power generation materials and equipment;
 - d) Strikes at the Facilities of the Affected Party;
 - e) Insufficiency of finances or funds or the agreement becoming onerous to perform; and
 - f) Non-performance caused by, or connected with, the Affected Party's;
 - g) Negligent or international acts, errors or emissions;
- (iii) Failure to comply with an Indian Law; or
- (iv) Breach of, or default under this Contract Agreement.

Sd/-
Chief Executive Officer
KSPDCL

PART-3: SPECIAL CONDITIONS OF CONTRACT

1. In case of discrepancy between the Conditions specified in Part-2: General Conditions of Contract (GCC), Part-1: Information / Instructions to Bidders, Part-4- Erection condition of contract & other Parts and this Section (SCC), the stipulations specified in this Section (SCC) **shall prevail.**
2. **The scope of the work :**
The scope of the work is as indicated in **Clause: 3.0 of Part-1- Information / Instructions and Conditions to Bidders.**
3. **Process / Methodology of Bid evaluation and awarding the contract.**
The Process / Methodology of Bid Evaluation and awarding the contract are as per **Clause - 15.0 of Part-1- Information / Instructions and Conditions to Bidders.**
4. **Terms of Payment / Mode of payment:**
The terms of payment are as per **Clause-19.0 of Part-1- Information / Instructions and Conditions to Bidders.**
5. **The Qualifying Requirement of Bidder :**
The qualifying requirements of bidder are as indicated in **Clause-7.0 of Part-1- Information / Instructions and Conditions to Bidders.**
6. **Completion Period / Work schedule:**
The work of supply, installation, testing & commissioning with 5 years warranty including operation and maintenance of the Solar Street Lighting Systems at Balasamudra and Rayacherlu village shall be completed within 4 months (**Four**) from the date of signing of Contract Agreement.
7. **Penalty for the Delay in Completion / Liquidated damages.**
 - 7.1. The bidder shall clearly note that time is the essence of the contract, the work including supply, installation, testing & commissioning of Solar Street Lighting Systems as per the scope of the work shall be completed within the stipulated period of **4 months (Four)** from the date of Signing of Contract Agreement. However, early completion of the works is highly appreciable.
 - 7.2. If the Successful Bidder fails to complete the work, fails to rectify the defects including replacement of faulty items, fails to carry out the periodicals maintenance of the street light systems within the stipulated time period specified in the contract and until expiry of 5 years from date of commissioning, KSPDCL shall without prejudice to its other remedies under the contract, deduct from the contract price as liquidated damage, **a sum**

equivalent to 0.5% of the contract price for each week of delay, subject to a maximum of 10% of the total contract value.

7.3. The KSPDCL has got every right to terminate the contract without any liability if total penalty crosses 10% of the contract value.

8. Storage – Cum Erection Insurance:

All the equipment and materials being supplied by the contractor shall be kept completely insured by the contractor at his cost from the time of dispatch from their works, up to the completion of erection testing and commissioning at site until handing over of the systems to jurisdictional Gram Panchayat's in accordance with the contract.

9. Guarantee & Performance Warranty:

The guarantee & performance warranty is as per **Clause-10.0 of Part-2 General conditions of contract.**

10. No deviation Certificate & acceptance of important conditions:

It is brought to the specific notice of the bidders that they are not permitted to take any deviations whatsoever to the following Conditions:

a) Terms of Payment:

Clause 19.0 of Part-1-Information / Instructions to bidders.

b) Bid Security/EMD:

Clause 10.0 of Part-1-Information / Instructions and Conditions to Bidders.

c) Guarantee & Performance warranty.

Clause 10.0 of Part-2, General Conditions of Contract-GCC.

d) Penalty for the Delay in Completion / Liquidated damages.

Clause 10.4 and 11 of Part-2, General Conditions of Contract-GCC and Clause -7.0 of Part-3-S.C.C.

e) Price basis

Clause 26 of Part-2, General Conditions of Contract-GCC.

f) Completion period & Work Schedule

Clause; 20.0 of Part-1-Information / Instructions and Conditions to Bidders and Clause - 6.0 of Part-3 S.C.C

g) Taxes and Duties:

Clause 24 of Part-2, General Conditions of Contract-GCC

11. All the documents shall be uploaded to e-procurement portal by the bidder. The non compliance of it shall result in the rejection of tender.
12. Incomplete/irrelevant/conditional or unsigned tenders are liable to be rejected.
13. All works shall be executed strictly in accordance with the general technical specifications of KSPDCL.
14. **KSPDCL will not supply any material required for this work.**
15. The successful bidder / contractor will have to make his own arrangements for tools and equipments for all the works during execution.
16. The work shall be carried out on total turnkey basis. All the arrangement for site clearance, marking layout proper approach shall be carried out by the successful bidder/contractor at his own cost and with his labour establishment.
17. After completion of the work, the successful bidder shall thoroughly clean the site and its surroundings to the satisfaction of local authorities and KSPDCL.
18. After completion of the work, the successful bidder shall install a display board duly indicating the Name of the KSPDCL, cost of the project, Name of the firm executing the work and period of completion etc.,
19. The KSPDCL reserves right to drop the tender at any stage in the interest of KSPDCL.

Sd/-
Chief Executive Officer
KSPDCL

PART- 4: ERECTION CONDITIONS OF CONTRACT (E.C.C)

1. Regulation of local authorities & statutes:

The contractor shall comply with all the rules and regulations of local authorities during the performance of his/her/their field activities. He/she/they shall also comply with all labour laws including the minimum wages act, 1948, and the rules made there under in respect of any employee or workman employed or engaged by him or his sub-contractor.

2. The successful bidder shall take suitable steps to protect adjacent equipments, buildings and other property private or public, at the site of work, and shall clean the site and repair the damage if any while execution at his own cost.

3. The successful bidder shall execute this tender work through valid license **Class-1 Electrical Contractor.**

4. Access to site and works on site:

Suitable access to and possession of the site shall be offered to the contractor by the **KSPDCL** in reasonable time. In the execution of the works, no persons other than the contractor or his duly appointed representative, sub-contractor and workman, shall be allowed to do work on the site, except by the special permission, in writing of the engineer or his representative.

5. Discipline of workmen:

The Contractor shall adhere to the disciplinary procedure set by the engineer in respect of his employees and workmen at site. The Engineer shall be at liberty to object to the presence of any representative or employee of the contractor at the site, if in the opinion of the engineer such employee has misconduct himself or is incompetent or negligent or otherwise undesirable and then the contractor shall remove such a person's objected to and provide in his place a competent replacement.

6. Employment of labour:

a) The contractor shall employ on the work, only his regular skilled employees with experience of his particular work and in accordance with law.

b) The contractor shall not employ child labour on the work as per child labour Act 1986.

c) All travelling expenses including provisions of all necessary transport to and from site, lodging allowances and other payments to the contractor's employees shall be the sole responsibility of the contractor.

- d) The hours of work on the site shall be decided by the **KSPDCL** and the contractor shall adhere to it. Working hours will normally be eight (8) hours per day - Monday to Saturday.
- e) The contractor's employees shall wear identification badges while on work at site.
- f) In case the **KSPDCL** becomes liable to pay any wages or dues to the labour or to any government agency under any of the provisions of the minimum wages act, workmen compensation act, contract labour (regulation abolition) Act or any other law due to act of omission of the contractor, the owner may make such payments and shall recover the same from the contractor's bills.

7. Inspection, Testing and inspection certificates:

The provision of the clause entitled inspection, testing and inspection certificates under technical specification shall also be applicable to the erection portion of the works. The engineer shall have the right to re-inspect any equipment though previously inspected and approved by him at the contractor's works before and after the same are erected at site. If by the above inspection, the engineer rejects any equipment, the contractor shall make good for such rejections either by replacement or modification/ repairs as may be necessary to the satisfaction of the engineer. Such replacements will also include the replacements or re-execution of such of those works of other contractors and/or agencies which might have got damaged or affected by the replacement or re-work done to the contractor's work.

8. Safety measures while working on poles having power distribution lines:

- a) All safety measures have to be taken by the contractor while allowing his labour to work on poles with power distribution lines in coordination and as directed by the BESCOM Engineer and KSPDCL will not be responsible for the any unhappy incidents occurring.
- b) The Successful bidder shall employ on the Work, only his regular skilled Employees with experience of this particular Work and in accordance with law
- c) Only authorized skilled labour shall be allowed to work while fixing light, wiring & connections to the lines.
- d) deleted
- e) **First-Aid:**

The successful bidder shall provide necessary first-aid facilities for all his/her/their employees, representatives and workmen working at the site. Enough number of

contractor's personnel shall be trained in administering first aid like artificial respiration etc.

9. Protection of property and contractor's liability:

- a) The successful bidder shall be responsible for any damage resulting from his operations. He shall also be responsible for protection of all persons including members of public and employees of the **KSPDCL** and the employees of other contractors and sub-contractors and all public and private property including structures, building, equipments and utilities either above or below the ground.
- b) The contractor will ensure provision of necessary safety equipment such as barriers, signboards, warning lights and alarms, etc., to provide adequate protection to persons and property. The contractor shall be responsible to give reasonable notice to the engineer and the owner of public/private property and utilities when such property and utilities are likely to get damaged or injured during the performance of his works and shall make all necessary arrangements with such owners related to removal and or replacement or protection of such property and utilities.

10. Insurance:

10.1 In addition to the condition covered under the **Clause 18.0**(Part-II)entitled "**Insurance**" in General Terms and Conditions (G.C.C), the following provisions will also apply to the portion of works to be done beyond the contractor's own or his sub-contractor's manufacturing works.

10.2 Workmen's Compensation Insurance:

This Insurance shall protect the contractor against all claims applicable under the workmen's compensation Act, 1948. This policy shall also cover the contractor against claims for injury, disability, disease or death of his or his sub-contractor's employee, which for any reason are not covered under the workmen's compensation Act, 1948. The liabilities shall not be less than:

Workmen's compensation - As per statutory provisions.

Employee's liability - As per statutory provisions.

10.3 Comprehensive General Liability Insurance:

The insurance shall protect the contractor against all claims arising from injuries, disabilities, disease or death of members of public or damage to property of others, due to

any act or omission on the part of the contractor, his agents, his employees, his representatives and sub-contractors or from riots, strikes and civil commotion. This insurance shall also cover all the liabilities of the contractor arising out of the clause entitled 'defense of suits' under clause 3, Part-II of General Terms and Conditions of Contract-GCC.

The hazards to be covered will pertain to all the works hazards where the contractor, his sub-contractors, his agents and his employees have to perform work pursuant to the contract.

10.4 The above are only illustrative list of insurance covers normally required and it will be the responsibility of the contractors to maintain all necessary insurance coverage to the extent both in time and amount to take care of all his liabilities either direct or indirect, in pursuance of the contract

Sd/-
Chief Executive Officer
KSPDCL

PART-5: TECHNICAL SPECIFICATION

1. Test certificates:

1.1 Test certificates:

The test certificates as per the MNRE guidelines not later than 3 years old shall be furnished to the KSPDCL at the time of inspection of materials at the manufacturer's works.

1.2 Routine /Acceptance Tests:

All the tests shall be carried out as per the prevailing MNRE standards applicable for the components.

- i. The routine test of the all the materials if required shall be conducted in presence of the KSPDCL representative unless inspections are waived and obtain dispatch instructions from KSPDCL before dispatch of materials to site for erection.

- ii. The acceptance of the quality of material shall in no way relieve the supplier of his responsibility for meeting all the requirements of the specifications and shall not prevent subsequent rejection, if such materials are later found to be defective.

1.3 TECHNICAL SPECIFICATIONS FOR 12 W WHITE-LED BASED STAND ALONE SOLAR STREET LIGHTING SYSTEM

Sr. No	Components	Specification for Stand Alone Solar street light fitting	Quantity
1.	SPV module/PV Panel	12V/75 Wp under STC is to be mounted on the top of the Pole	134 Nos.
2.	Battery	<p>Minimum 12.8V, 30 Ah capacity Lithium Ferro Phosphate solar battery has to be fixed inside the battery box and below the SPV module.</p> <p>The battery shall be outside the luminaries enclosure in a vented, acid proof and corrosion resistant, hot dip galvanized metallic box (IP 65) with anti-theft locking arrangement for outdoor use.</p>	134 Nos.
3.	Light Source	<p>White Light Emitting Diode (W-LED)</p> <p>DC 12 Watt, W-LED luminaire, dispersed beam, soothing to eyes with the use of proper optics and diffuser.</p> <p>LED Chip should be compliance to IES: LM-80 (Approved Method for Measuring Lumen Maintenance of LED Light Sources and LED lumen depreciation time to L70). Test report for same should be submitted.</p>	134 Nos.
4	Light Out put	<p>The luminaire must use high efficacy W-LED with minimum 135 lumens per watt (and UV free). [A certificate to be submitted by the System supplier to the Test Lab during certification]</p> <p>For single light level:</p> <p>Minimum 24 Lux when measured at a point 4 meters below the light. The illumination should be uniform without dark bands or abrupt variations, and soothing to the eye. Higher light output will be preferred.</p> <p>For Multiple Light levels:</p> <p>The luminaire should have two levels of light to take care of different lighting needs during the night. Minimum 24 Lux when measured at a point 4 meters below the light (at " High" illumination level). The illumination Should be uniform without dark bands or abrupt variations. Minimum 12 Lux at lower illumination level. (Higher light output will be preferred)</p> <p>The luminaire shall be tested for Electrical, Photometry and Color parameters as per IES LM-79:2008 or IS: 16106:2012 for following performance parameters like:</p>	

		<p>1) Total luminous flux: $\geq 1500\text{lm}$.</p> <p>2) Luminous efficacy (i.e. system efficacy): $\geq 125\text{lm/W}$.</p> <p>3) Color Temperature: Between 5500 K to 6500K.</p> <p>4) CRI ≥ 70</p> <p>5) Luminous intensity distribution should follow the batwing patterns in polar curves.</p> <p>6) Require validation report using .ies file, which is generated during luminous intensity distribution test and using maintenance factor 0.9 and pole height of 4m., Road width 5m and Pole span 15m. The average illuminance level and uniformity should comply with requirement as per IS 1944, wherever applicable.</p> <p>7) The luminaire should be tested for all type tests as per IS 10322 Part 5 Sect 3 or IEC 60598-2-3standards.</p>	
5	Mounting of light	<p>GI pole of 6 mts height with suitable mounting structure to fix SPV and Battery.</p> <p>Pole height 5 m above the ground level and 1 m below the ground. Luminaire shall be at least 4.5 m above the ground level.</p>	134 Nos.
6	Module Mounting structures with Battery Box Electronics Efficiency	<p>A corrosion resistant metallic frame structure should be fixed on the pole to hold the SPV module. The pole should have the provision to hold the luminaire. The battery shall be outside the luminaries enclosure in a vented, acid proof and corrosion resistant, hot dip galvanized metallic box (IP 65) with anti-theft locking arrangement for outdoor use.</p> <p>Overall total Efficiency of the Electronics should be Minimum 90%</p>	134 Nos.
7	Duty Cycle	<p>Dusk to dawn:</p> <p>First 5 Hours full light (Min. 24 Lux), rest of the time at lower light (50%, Min. 12 Lux) level.</p> <p>(Higher light output will be preferred)</p> <p>Suitable MPPT solar charger controller has to be installed for battery charging and auto ON/OFF the LED light (Dusk to Dawn) with 50% dimming after 5 hours</p>	
8	Autonomy	3 days or Minimum 36 operating hours per permissible discharge with fully charged Lithium-Ferro Phosphate Battery.	
9	Ingress Protection - IP	Optical and Control gear compartment - IP 65 / IP 66	

10	Impact resistance of casing	≥ IK 08	
11	Radiated Emission Test	As per CISPR-15	
12	ESD (Electro Static Discharge) and Radiated susceptibility test	As per IEC 61547	
13.	Earthwork and concrete work		134 Nos

Technical Details:

PV Module

- i. Indigenously manufactured PV module should be used.
- ii. The PV module should have crystalline silicon solar cells and must have a certificate of testing conforming to IEC 61215 Edition II / BIS 14286 from an NABL or IECQ accredited Laboratory.
- iii. The power output of the module under STC should be a minimum of 75Wp.
- iv. The module efficiency should not be less than 14 %.
- v. The terminal box on the module should have a provision for opening it for replacing the cable, if required.
- vi. There should be a Name Plate fixed inside the module which will give:
 - a. Name of the Manufacturer or Distinctive Logo.
 - b. Model Number
 - c. Serial Number
 - d. Year of manufacture
- vii. A distinctive serial number starting with NSM will be engraved on the frame of the module or screen printed on the tedlar sheet of the module.

Battery

- i. Minimum 12.8V, 30 AH capacity Lithium Ferro Phosphate Battery.
- ii. Battery pack should have proper 'Battery management System' (BMS) for cell balancing, over charge and over temperature protection.
- iii. Battery should conform to the latest BIS/ International standards.
- iv. Battery has to be fixed inside the battery box and below the SPV module.

Light Source

- i. The light source will be a white LED type.

- ii. The colour temperature of white LED used in the system should be in the range of 5500°K–6500°K.
- iii. W-LEDs should not emit ultraviolet light.
- iv. The light output from the white LED light source should be constant throughout the duty cycle.
- v. The lamps should be housed in an assembly suitable for outdoor use.
- vi. The temperature of heat sink should not increase more than 20°C above ambient temperature during the dusk to dawn operation.

Electronics

- i. The total electronic efficiency should be at least 90%.
- ii. Charge controller should be MPPT type.
- iii. Electronics should operate at an appropriate voltage suitable for proper charging of the battery.
- iv. No Load current consumption should be less than 20mA.
- v. The PV module itself should be used to sense the ambient light level for switching ON and OFF the lamp.
- vi. The PCB containing the electronics should be capable of solder free installation and replacement.
- vii. Necessary lengths of wires/cables, switches suitable for DC use and fuses should be provided.

Electronic Protections

- i. Adequate protection is to be incorporated under “No Load” conditions e.g. when the lamp is removed and the system is switched ‘ON’.
- ii. The system should have protection against battery overcharge and deep discharge conditions.
- iii. The System should have protection against short circuit conditions.
- iv. Protection for reverse flow of current through the PV module(s) should be provided.
- v. Adequate protection should be provided against battery reverse polarity.
- vi. Load reconnect should be provided at 80% of the battery capacity status.

Mechanical Components

- I. A corrosion resistant metallic frame structure should be fixed on the pole to hold the SPV module.
- II. The frame structure should have provision so that the module can be oriented at the suitable tilt angle.
- III. Pole should be Hot dip galvanized pipe as per IS1161 & IS4736 i.e. Class B.
- IV. Pole height 5 m above the ground level and 1 m below the ground. Luminaire shall be at least 4.5 m above the ground level.
- V. The pole should have the provision to hold the luminaire.
- VI. The battery shall be outside the luminaries enclosure in a vented, acid proof and corrosion resistant, hot dip galvanized metallic box (IP 65) with anti-theft locking arrangement for outdoor use.

Indicators

- 1) The system should have two indicators, green and red.
- 2) The green indicator should indicate the charging under progress and should glow only when the charging is taking place. It should stop glowing when the battery is fully charged.
- 3) Red indicator should indicate the battery "Load Cut Off" condition.

Quality and Warranty

- i. The street lighting system (including the battery) will be warranted for a period of five years from the date of supply.
- ii. The PV module(s) will be warranted for a minimum period of 25 years from the date of supply. The PV modules must be warranted for their output peak watt capacity, which should not be less than 90% at the end of Ten (10) years and 80% at the end of Twenty five (25) years.
- iii. The Warranty Card to be supplied with the system must contain the details of the system.

Operation and Maintenance Manual

An Operation, Instruction and Maintenance Manual, in English and the Kannada, should be provided with the Solar Street Lighting System. The following minimum details must be provided in the Manual:

- Basic principles of Photovoltaics.
- A small write-up (with a block diagram) on Solar Street Lighting System - its components, PV module, battery, electronics and luminaire and expected performance.
- Type, Model number, Voltage & capacity of the battery, used in the system.
- The make, model number, country of origin and technical characteristics (including IESNA LM-80 report) of W-LEDs used in the lighting system.
- About Charging and Significance of indicators.
- Clear instructions about erection of pole and mounting of PV module (s) and lamp housing assembly on the pole.
- Clear instructions on regular maintenance and troubleshooting of the Solar Street Lighting System.
- DO's and DONT's.
- Name and address of the contact person for repair and maintenance, in case of non-functionality of the solar street lighting system.

List of BIS standards applicable for components of Solar PV Applications

Sl. No.	Product	Indian Standard Number	Title of Indian Standard

**Sd/-
Chief Executive officer
KSPDCL**

ANNEXURES

Annexure - 1

Bid Form

Tender Notification No: KSPDCL/F-209/2022-23/TTK-56 Date: 09-06-2022

- 1. Particulars of the work:** Design, supply, installation, testing & commissioning of the Solar Street Lighting Systems with 5 years warranty including operation and maintenance in Balasamudra and Rayacherlu villages of Pavagada taluk.
- 2. Schedule period of completion & commissioning:** 4months(Four) from the date of Signing of Contract Agreement.
- 3. Penalty for delay in completion of the project is 0.5% of the contract price for each week of delay, subject to a maximum of 10% of the total contract value.**
- 4. Last date and time of submission of tender(Hard Copies of POA): As specified in e-TENDER NOTICE.**
- 5. Amount of Earnest money deposit paid in e-portal: Rs. 66,000/- only.**
- 6. Period of validity of tender offer:180 (One hundred and eighty) Days from the date of deadline for submission of tenders (original or extended as the case may be).**
- 7. Date and Time of opening Techno-Commercial bid: As specified in e-TENDER NOTICE**
- 8. Price variation:** No price variation, Contract prices are firm during the contract period including variation in unit prices, Taxes & Duties.
- 9. Quantity variation:** KSPDCL may vary the quantities by $\pm 25\%$ as in the scope of work.
- 10. Place of opening of tender:**
Office of the Chief Executive officer, Karnataka Solar Power Development Corporation Limited, 2nd Floor, South Block, Beeja Raja Seeds Complex, Bellary Road, Hebbala, Bengaluru -560 024.

(Signature of bidder with Seal)

Annexure- 2

Tender Notification No: KSPDCL/F-209/2022-23/TTK-56 Date: 09-06-2022

DECLARATION BY THE BIDDER REGARDING

I/We.....(Herein after referred to as the Bidder) being desirous of tendering for the work, under the above mentioned tender and having fully understood the nature of the work and having carefully noted all the terms and conditions, specifications etc., as mentioned in the tender document, DO HEREBY DECLARE THAT-

1. We are fully aware of all the requirements of the tender document and agree with all provisions of the tender document.
2. We are capable of executing and completing the work as required in the tender.
3. We accept all risks and responsibilities directly or indirectly connected with the performance of the tender.
4. We have no collusion with other contractors, any employee of KSPDCL or with any other person or firm in the preparation of the bid.
5. We have not been influenced by any statement or promises by KSPDCL or any of its employees but only by the tender document.
6. We are financially solvent and sound to execute the tendered work.
7. We are sufficiently experienced and competent to perform the contract to the satisfaction of KSPDCL.
8. The information and the statements submitted by us with the tender are true.
9. We are familiar with all general and special laws, acts, ordinances, rules and regulations of the Municipal, District, State and Central Government that may affect the work, its performance or personnel employed therein.
10. We have never been debarred from similar type of work by any Government undertaking /Department.
11. We have remitted cost of Bid document as required in the tender document
12. We have remitted the earnest money as required in the tender document
13. We accept that the earnest money may be absolutely forfeited by KSPDCL if we fail to undertake the work or sign the contract within the stipulated time.

14. The rates quoted in this offer will be valid up to 180 (One hundred and eighty days) from the date of deadline for submission of tenders (original or extended as the case may be).
15. We give an assurance to execute the tendered work as per technical specifications, terms and conditions of the tender and in exact configuration of the sample submitted (where ever applicable) / catalogues furnished on award of work.
16. We accept that we will sign an agreement on stamp paper with KSPDCL after agreeing to rates approved through this Bid. This agreement will also be the warranty for the equipment supplied by us and performance of the system for a period of five years from the date of commissioning. During this period, we agree to replace/repair all the components supplied by us, which proves to be defective or unusable due to faulty design or workmanship. However this does not include warrant breakable items like glass etc.,
17. We accept that we will replace the equipment in case of any manufacturing defect noticed after installation of all the equipments & appliances and shall carry out regular maintenance for a period of **Five years** from the date of commissioning.
18. We have read and examined Tender Notification, Information/Instructions and Conditions to Bidders, General Conditions Of Contract (Part-2:G.C.C), Special Conditions Of Contract (Part-3:S.C.C), Erection Condition Of Contract(Part-4:E.C.C), Technical Specifications (Part-5) in all respects.
19. We hereby submit our Bid and undertake to keep our Bid Valid for a period of **180 (One hundred and eighty) Days** from the last date of submission of bid. We hereby further undertake that during said period we shall not vary/alter or revoke our Bid.
20. This undertaking is in consideration of KSPDCL agreeing to open my Bid and consider and evaluate the same for the purpose of award of Work in terms of provisions of clause entitled "**Award of Contract**" Clause 18 of Part-1: Information / Instructions and Conditions to Bidders in the Bid Documents.
21. Should this Bid be accepted, we also agree to abide by and fulfill all the terms, conditions of provision of the above mentioned bid documents.

(Signature of Bidder with Seal)

Annexure- 3

Tender Notification No: KSPDCL/F-209/2022-23/TTK-56 Date: 09-06-2022

WE HAVE UNDERSTOOD THE FOLLOWING CONDITIONS OF TENDER

1. We have submitted complete Tender in all respects with all schedules, documents etc. as per the tender document issued by KSPDCL.
2. We have sent / submitted tender documents by up loading to e-procurement portal within the due date and time as mentioned in tender form.
3. We understood that KSPDCL reserves the right for not accepting the lowest of any/all the tenders in whole or in part without assigning any reason for such non/acceptance.
4. We accept that the rates finalized through this tender shall be valid & Firm during the period of contract including price variations and variations in Taxes & Duties during the Contract period and until expiry of 5 years from the date of successful commissioning.
5. We have visited the site & analyzed the existing distribution system, climatic condition & other related site conditions before quoting. We have designed, manufactured the materials so as to match with the site conditions for trouble free operations.
6. We have quoted the rates as per specifications laid down by KSPDCL mentioned in the tender documents.
7. We have furnished all information in the tender in English language only. Information in any other Language has been accompanied with its translation in English. We know that failure to comply with this may disqualify our tender.
8. We have furnished name, residence and places of our business of the person or persons submitting the tenders and have signed with our seal in our usual signatures.
9. We understood the clause fully "If the bidder finds discrepancies in, or omissions from the specifications or other documents or if in doubt as to their meaning, we should at once intimate KSPDCL and obtain clarification in writing prior to submitting his tender".
10. Our Tender/Bid is complete in all technical and commercial respect etc. as required in the specification. Any queries made will be promptly replied with following time schedule.
 - a) E-mail required to be replied by e-mail 01 day
 - b) Query by letter to be replied by letter 03 days

11. We understand that any approach from us, or our representative or our agent trying to influence the decision of the tender, officially or otherwise shall make our offer/tender liable to be summarily rejected.
12. We understood that the bid will be opened at the time and date mentioned in the tender notice issued by KSPDCL in the presence of Bidders, who choose to be present if interested.
13. Only our authorized representative has signed all the changes made on tender document.
14. We understand that in the event, the successful bidder /contractor fails to sign the contract with KSPDCL within specified time or withdraws his offer within the validity period or fails to accept the order for any reason whatsoever, or fails to complete the work in time, then the earnest money deposited in the particular case by him, shall be forfeited by KSPDCL and the Bidder shall be blacklisted for any other such activities in any State Govt. /Govt. of India and Union Territory.
15. We have understood that Tenders/offers of only those firms or bidders, capable or who are accredited representatives of technically expert firms and who give satisfactory evidence of such experience shall be considered.
16. **We have understood that “Any work, which is not covered under this contract, but is essentially required for the completion of specified job to the satisfaction of KSPDCL shall be carried out by the successful bidder/contractor without any extra cost to KSPDCL”.**
17. We agree for penalty clauses and agree for the same.
18. We agree for the payment terms indicated in the Bid document.
19. We agree for the performance warranty of the supplies to be made by us & operation and maintenance works to be carried out is for a period of **Five years** from the date of Commissioning.

(Signature of Bidder with Seal)

Annexure - 4

CERTIFICATE FROM CHARTERED ACCOUNTANT

(Financial Data pertaining to Financial Qualification of the Bidder as per Detailed NIT)

(To be submitted online in e-portal along with the Techno-Commercial Bid)

(On the Letterhead of the Chartered Accountant)

Tender Notification No:KSPDCL/F-209/2022-23/TTK-56 Date: 09-06-2022

To satisfy the above requirements, we give below the following details:

In terms of **Detailed NIT**, we confirm that the average annual financial turnover of the Bidder, is not less than Rs.33 Lakhs **INR (Indian Rupees Thirty Three Lakhs only)** during any two (2) FYs out of the preceding five (5) FYs from FY 2016-17 until 2020-21.

Sl. No:	Financial Year	Amount in INR (In Lakhs)
1	FY 2020 - 21	
2	FY 2019 - 20	
3	FY 2018 - 19	
4	FY 2017 - 18	
5	FY 2016 - 17	
6	Enclose Audited Financial Statements for preceding five (5) Financial Years	Yes*/No*

Date:

Name of the Chartered Accountant

Name of authorized signatory

Signature:

Seal:

Signature and Seal and Registration number of Chartered Accountant

Annexure- 5

Anti-Collusion Certificate

(On the Letterhead of the Bidder)

We hereby certify and confirm that in the preparation and submission of our Bid for the Design, Supply, Installation, Testing and Commissioning of the Solar Street Lighting Systems with 5 years warranty including operation and maintenance in Balasamudra and Rayacherluvillage of Pavagada taluk, we have not acted in concert or in collusion with any other Bidder or other person(s) and also not done any act, deed or thing which is or could be regarded as anti-competitive.

We further confirm that we have not offered nor will offer any illegal gratification in cash or kind to any person or agency in connection with the instant Bid.

Dated thisDay of, (month/year)

.....

(Name of the Bidder)

.....

(Signature of the Authorized Person with seal)

Annexure- 6

Format for Affidavit certifying that the Entity/Promoter/s / Director/s of Entity are not blacklisted **(On a Stamp Paper of appropriate value)**

Anti-Blacklisting Affidavit

We, M/s. (the names and addresses of the registered office) hereby certify and confirm that we or any of our promoters/directors are not barred by Karnataka Solar Power Development Corporation Ltd. (KSPDCL) / any other entity of Government of Karnataka or blacklisted by any state government or central government / department / agency in India from participating in Project/s, either individually or as on the ----- (Bid Due Date).

We further confirm that we are aware that our Bid for the Project would be liable for rejection in case any material misrepresentation is made or discovered with regard to the requirements of this RFP at any stage of the Bidding Process or thereafter during the agreement period.

Dated thisDay of, 20....

Name of the Bidder:

Signature of the Authorized person with Seal:

Annexure- 7

Power of Attorney for signing of Bid

(To be executed on Stamp paper of Non Judiciary value of Rs.200)

Know all men by these presents, We.....(name of the firm and address of the registered office) do hereby irrevocably constitute, nominate, appoint and authorise Mr. / Ms (Name), son/daughter/wife of.....and presently residing at, who is presently employed with us and holding the position of], as our true and lawful attorney (hereinafter referred to as the "Attorney") to do in our name and on our behalf, all such acts, deeds and things as are necessary or required in connection with or incidental to submission of our **Bid for the Design, Supply, Installation, Testing and Commissioning of the Solar Street Lighting Systems with 5 years warranty including operation and maintenance in Balasamudra and Rayacherlu village of Pavagada taluk** RFP no.-----dated-----, proposed by the Karnataka Solar Power Development Corporation Limited (the "KSPDCL") including but not limited to signing and submission of all applications, Bids and other documents and writings, participate in Bidders' and other conferences and providing information / responses to KSPDCL, representing us in all matters before KSPDCL, undertakings consequent to acceptance of our Bid, and generally dealing with KSPDCL in all matters in connection with or relating to or arising out of our Bid for the said Project and/or upon award thereof to us

The Project(s) proposed by us is Short term Tender is invited for Design, Supply, Installation, Testing and Commissioning of the Solar Street Lighting Systems with 5 years warranty **including operation and maintenance in Balasamudra and Rayacherlu** village of Pavagada taluk and district of Karnataka AND we hereby agree to ratify and confirm and do hereby ratify and confirm all acts, deeds and things lawfully done or caused to be done by our said Attorney pursuant to and in exercise of the powers conferred by this Power of Attorney and that all acts, deeds and things done by our said Attorney in exercise of the powers hereby conferred shall and shall always be deemed to have been done by us.

IN WITNESS WHEREOF WE....., THE ABOVE NAMED PRINCIPAL HAVE EXECUTED THIS POWER OF ATTORNEY ON THIS-----DAY OF-----, 20**.

For (Signature)
(Name, Title and Address)

Witnesses:

- 1.
- 2.

Accepted
(Signature)
(Name, Title and Address of the Attorney)

[Notarised]

Notes:

- The mode of execution of the Power of Attorney should be in accordance with the procedure, if any, laid down by the applicable law and the charter documents of the executant(s).
- Also, wherever required, the Bidder should submit for verification the extract of the charter documents and documents such as a Board resolution, power of attorney in favour of the person executing this Power of Attorney for the delegation of power hereunder on behalf of the Bidder.

Annexure- 8

Experience Certificate

The details pertaining to the reference projects commissioned

Detailed of the solar projects (off grid or on grid) executed in case of bidder being system integrator / components supplied to the projects executed in case bidder being manufacture of the type solar inverter chargers, Solar Home Lighting Systems, Solar Stand alone Street Lighting system and Solar Power Plants with battery & without battery.

Sr No.	Item Description	Reference project 1	Reference Project 2	Reference Plant ...	Cumulative
1	Description of work (Capacity of the panel Kwp)				
2	Name of Client with full address				
3	Name of ultimate user of energy				
4	Type of solar Project / (solar inverter chargers, Solar Home Lighting Systems, Solar Stand alone Street Lighting system and Solar Power Plants with battery & without battery)				
5	Name of the solar project with its location (Village, Taluk, District, State)				
6	Capacity of the solar panel inKwp				
7	Date of Commissioning/Completion of project				
8	a. Copies of Letter of award/ work order issued for execution of work in case of system integrator / purchase order in case of bidder being Manufacture i)In case system integrator : The work satisfactory /commissioning certificate issued by the concerned organizations shall be at least				

Sr No.	Item Description	Reference project 1	Reference Project 2	Reference Plant ...	Cumulative
	<p>6 months prior to the date of Techno-Commercial Bid submission OR latest 6 months Joint Meter Reading report</p> <p>ii) In case of manufacture The work satisfactory /commissioning certificate issued by the concerned organizations shall be at least 6 months prior to the date of Techno-Commercial Bid submission OR latest 6 months Joint Meter Reading report OR</p> <p>The satisfactory materials supplied certificate issued by the concerned organizations shall be at least 6 months prior to the date of Techno-Commercial Bid submission.</p>				

Date:

Name of the Bidder

Name of authorized signatory

Signature:

Seal:

Annexure- 9

Performance Security Form

Bank Guarantee for Operational Acceptance during warranty period

(To be on non-judicial stamp paper of **Rs 200/-** value as per Stamp Act relevant to place of execution)

Bank Guarantee No.

Date

To,

Karnataka Solar Power Development Corporation Limited (KSPDCL),
Head Office, 2nd floor, South Block, Beeja Raja Seeds Complex,
Bellary Road, Hebbala, Bengaluru - 560024.
Karnataka

Dear Sirs,

In accordance with Invitation for Bids under your Tender Notification No: **KSPDCL/F209/2022-23/TTK-56 Date: 09-06-2022** having its registered office at _____ (Hereinafter called the Bidder) wish to participate in the bid Design, supply, installation, testing & commissioning of the Solar Street Lighting Systems with 5 years warranty **including operation and maintenance** at Balasamudra and Rayacherlu village of Pavagada taluk and district of Karnataka.

We, the _____ [Name & address of bank] _____ having our head office at _____ guarantee and undertake to pay immediately on demand by _____ [Name of KSPDCL] _____ (hereinafter called KSPDCL) for this Performance Security for Operational Acceptance along with performance during warranty period of 5 (five) years **including operation and maintenance** from the date of Operational Acceptance in the form an unconditional Bank Guarantee for the amount of INR _____(Indian Rupees in words) without any reservation, protest, demand and recourse. Any such demand made by the 'KSPDCL' shall be conclusive and binding on us irrespective of any dispute or difference raised by the Bidder.

Notwithstanding anything contained herein above our liability under this guarantee is restricted to _____ and it shall remain with a expiry date up to _____ with a claim date up to _____ and shall be extended from time to time for such period, as may be desired by M/s. _____ whose behalf this guarantee has been given.

In witness where of the Bank, through its authorized officer, has set its hand and stamp on this _____ day of _____ at _____.

WITNESS:

1. Signature
Name
Official Address
2. Signature
Name
Official Address

Note:

1. The Bank Guarantee shall be from a Bank as per relevant provisions RFP.
2. The BG should be on Non-Judicial stamp paper of **Rs 200/-** as per Stamp Act prevailing in the State(s) where the BG is submitted or is to be acted upon or the rate prevailing in the State where the BG is executed, whichever is higher. The Stamp Paper shall be purchased in the name of Bidder/Bank issuing the guarantee.

Annexure-10

Pre Bid Queries format

Pre Bid Queries of Balasamudra and Rayacherlu village- Solar Street Lighting System Tender						
Sl. No	Bidder Name	Clause No	Page No	Existing Clause	Queries	KSPDCL Clarifications

WORK COMPLETION & HANDING OVER CERTIFICATE

Tender Notification No: KSPDCL/F-209/2022-23/TTK-56 Date: 09-06-2022

This is to certify that the Solar Street Lighting Systems have been installed and commissioned on _____, which are working satisfactorily.

The commissioned Solar Street Lighting Systems have been handed over to _____ (Balasamudra/Rayacherlu Village Panchayath) by KSPDCL for future maintenance in co-ordination with the _____ (successful bidder).

Contact person Name & number of the Village Panchayath representative	
Date of completion of work	

Details of Solar street light:

Details of installed Solar street lighting systems	
75 Wp under STC Solar PV module	
12.8V, 30AH capacity Lithium ferro Phosphate.	
12 Watt, W-LED	

Handed over by:

(Bidder representative)

Name :

Designation:

Signature & stamp:

Taken over by:

(Balasamudra/Rayacherlu Village Panchayath representative)

Name:

Designation:

Signature & stamp:

Witnessed by:

(KSPDCL representative)

Name:

Designation:

Signature & stamp:

PART-5: TECHNICAL SPECIFICATION

1. Test certificates:

1.1 Test certificates:

The test certificates as per the MNRE guidelines not later than 3 years old shall be furnished to the KSPDCL at the time of inspection of materials at the manufacturer's works.

1.2 Routine /Acceptance Tests:

All the tests shall be carried out as per the prevailing MNRE standards applicable for the components.

- i. The routine test of the all the materials if required shall be conducted in presence of the KSPDCL representative unless inspections are waived and obtain dispatch instructions from KSPDCL before dispatch of materials to site for erection.
- ii. The acceptance of the quality of material shall in no way relieve the supplier of his responsibility for meeting all the requirements of the specifications and shall not prevent subsequent rejection, if such materials are later found to be defective.

1.3 TECHNICAL SPECIFICATIONS FOR 12 W WHITE-LED BASED STAND ALONE SOLAR STREET LIGHTING SYSTEM

Sr. No	Components	Specification for Stand Alone Solar street light fitting	Quantity
1.	SPV module/PV Panel	12V/75 Wp under STC is to be mounted on the top of the Pole	134 Nos.
2.	Battery	<p>Minimum 12.8V, 30 Ah capacity Lithium Ferro Phosphate solar battery has to be fixed inside the battery box and below the SPV module.</p> <p>The battery shall be outside the luminaries enclosure in a vented, acid proof and corrosion resistant, hot dip galvanized metallic box (IP 65) with anti-theft locking arrangement for outdoor use.</p>	134 Nos.
3.	Light Source	<p>White Light Emitting Diode (W-LED)</p> <p>DC 12 Watt, W-LED luminaire, dispersed beam, soothing to eyes with the use of proper optics and diffuser.</p> <p>LED Chip should be compliance to IES: LM-80 (Approved Method for Measuring Lumen Maintenance of LED Light Sources and LED lumen depreciation time to L70). Test report for same should be submitted.</p>	134 Nos.
4	Light Out put	<p>The luminaire must use high efficacy W-LED with minimum 135 lumens per watt (and UV free). [A certificate to be submitted by the System supplier to the Test Lab during certification]</p> <p>For single light level:</p> <p>Minimum 24 Lux when measured at a point 4 meters below the light. The illumination should be uniform without dark bands or abrupt variations, and soothing to the eye. Higher light output will be preferred.</p> <p>For Multiple Light levels:</p> <p>The luminaire should have two levels of light to take care of different lighting needs during the night. Minimum 24 Lux when measured at a point 4 meters below the light (at'' High'' illumination level). The illumination Should be uniform without dark bands or abrupt variations. Minimum 12 Lux at lower illumination level. (Higher light output will be preferred)</p> <p>The luminaire shall be tested for Electrical, Photometry and</p>	

		<p>Color parameters as per IES LM-79:2008 or IS: 16106:2012 for following performance parameters like:</p> <ol style="list-style-type: none"> 1) Total luminous flux: $\geq 1500\text{lm}$. 2) Luminous efficacy (i.e. system efficacy): $\geq 125\text{lm/W}$. 3) Color Temperature: Between 5500 K to 6500K. 4) CRI ≥ 70 5) Luminous intensity distribution should follow the batwing patterns in polar curves. 6) Require validation report using .ies file, which is generated during luminous intensity distribution test and using maintenance factor 0.9 and pole height of 4m., Road width 5m and Pole span 15m. The average illuminance level and uniformity should comply with requirement as per IS 1944, wherever applicable. 7) The luminaire should be tested for all type tests as per IS 10322 Part 5 Sect 3 or IEC 60598-2-3standards. 	
5	Mounting of light	<p>GI pole of 6 mts height with suitable mounting structure to fix SPV and Battery.</p> <p>Pole height 5 m above the ground level and 1 m below the ground. Luminaire shall be at least 4.5 m above the ground level.</p>	134 Nos.
6	Module Mounting structures with Battery Box Electronics Efficiency	<p>A corrosion resistant metallic frame structure should be fixed on the pole to hold the SPV module. The pole should have the provision to hold the luminaire. The battery shall be outside the luminaries enclosure in a vented, acid proof and corrosion resistant, hot dip galvanized metallic box (IP 65) with anti-theft locking arrangement for outdoor use.</p> <p>Overall total Efficiency of the Electronics should be Minimum 90%</p>	134 Nos.
7	Duty Cycle	<p>Dusk to dawn:</p> <p>First 5 Hours full light (Min. 24 Lux), rest of the time at lower light (50%, Min. 12 Lux) level.</p> <p>(Higher light output will be preferred)</p> <p>Suitable MPPT solar charger controller has to be installed for battery charging and auto ON/OFF the LED light (Dusk to Dawn) with 50% dimming after 5 hours</p>	
8	Autonomy	3 days or Minimum 36 operating hours per permissible discharge with fully charged Lithium-Ferro Phosphate Battery.	

9	Ingress Protection - IP	Optical and Control gear compartment - IP 65 / IP 66	
10	Impact resistance of casing	≥ IK 08	
11	Radiated Emission Test	As per CISPR-15	
12	ESD (Electro Static Discharge) and Radiated susceptibility test	As per IEC 61547	
13.	Earthwork and concrete work		134 Nos

Technical Details:

PV Module

- i. Indigenously manufactured PV module should be used.
- ii. The PV module should have crystalline silicon solar cells and must have a certificate of testing conforming to IEC 61215 Edition II / BIS 14286 from an NABL or IECQ accredited Laboratory.
- iii. The power output of the module under STC should be a minimum of 75Wp.
- iv. The module efficiency should not be less than 14 %.
- v. The terminal box on the module should have a provision for opening it for replacing the cable, if required.
- vi. There should be a Name Plate fixed inside the module which will give:
 - a. Name of the Manufacturer or Distinctive Logo.
 - b. Model Number
 - c. Serial Number
 - d. Year of manufacture
- vii. A distinctive serial number starting with NSM will be engraved on the frame of the module or screen printed on the tedlar sheet of the module.

Battery

- i. Minimum 12.8V, 30 AH capacity Lithium Ferro Phosphate Battery.
- ii. Battery pack should have proper 'Battery management System' (BMS) for cell balancing, over charge and over temperature protection.
- iii. Battery should conform to the latest BIS/ International standards.

- iv. Battery has to be fixed inside the battery box and below the SPV module.

Light Source

- i. The light source will be a white LED type.
- ii. The colour temperature of white LED used in the system should be in the range of 5500°K-6500°K.
- iii. W-LEDs should not emit ultraviolet light.
- iv. The light output from the white LED light source should be constant throughout the duty cycle.
- v. The lamps should be housed in an assembly suitable for outdoor use.
- vi. The temperature of heat sink should not increase more than 20°C above ambient temperature during the dusk to dawn operation.

Electronics

- i. The total electronic efficiency should be at least 90%.
- ii. Charge controller should be MPPT type.
- iii. Electronics should operate at an appropriate voltage suitable for proper charging of the battery.
- iv. No Load current consumption should be less than 20mA.
- v. The PV module itself should be used to sense the ambient light level for switching ON and OFF the lamp.
- vi. The PCB containing the electronics should be capable of solder free installation and replacement.
- vii. Necessary lengths of wires/cables, switches suitable for DC use and fuses should be provided.

Electronic Protections

- i. Adequate protection is to be incorporated under "No Load" conditions e.g. when the lamp is removed and the system is switched 'ON'.
- ii. The system should have protection against battery overcharge and deep discharge conditions.
- iii. The System should have protection against short circuit conditions.
- iv. Protection for reverse flow of current through the PV module(s) should be provided.
 - v. Adequate protection should be provided against battery reverse polarity.
- vi. Load reconnect should be provided at 80% of the battery capacity status.

Mechanical Components

- I. A corrosion resistant metallic frame structure should be fixed on the pole to hold the SPV module.
- II. The frame structure should have provision so that the module can be oriented at the suitable tilt angle.

- III. Pole should be Hot dip galvanized pipe as per IS1161 & IS4736 i.e. Class B.
- IV. Pole height 5 m above the ground level and 1 m below the ground. Luminaire shall be at least 4.5 m above the ground level.
- V. The pole should have the provision to hold the luminaire.
- VI. The battery shall be outside the luminaries enclosure in a vented, acid proof and corrosion resistant, hot dip galvanized metallic box (IP 65) with anti-theft locking arrangement for outdoor use.

Indicators

- 1) The system should have two indicators, green and red.
- 2) The green indicator should indicate the charging under progress and should glow only when the charging is taking place. It should stop glowing when the battery is fully charged.
- 3) Red indicator should indicate the battery "Load Cut Off" condition.

Quality and Warranty

- i. The street lighting system (including the battery) will be warranted for a period of five years from the date of supply.
- ii. The PV module(s) will be warranted for a minimum period of 25 years from the date of supply. The PV modules must be warranted for their output peak watt capacity, which should not be less than 90% at the end of Ten (10) years and 80% at the end of Twenty five (25) years.
- iii. The Warranty Card to be supplied with the system must contain the details of the system.

Operation and Maintenance Manual

An Operation, Instruction and Maintenance Manual, in English and the Kannada, should be provided with the Solar Street Lighting System. The following minimum details must be provided in the Manual:

- Basic principles of Photovoltaics.
- A small write-up (with a block diagram) on Solar Street Lighting System - its components, PV module, battery, electronics and luminaire and expected performance.
- Type, Model number, Voltage & capacity of the battery, used in the system.
- The make, model number, country of origin and technical characteristics (including IESNA LM-80 report) of W-LEDs used in the lighting system.
- About Charging and Significance of indicators.
- Clear instructions about erection of pole and mounting of PV module (s) and lamp housing assembly on the pole.
- Clear instructions on regular maintenance and troubleshooting of the Solar Street Lighting System.
- DO's and DONT's.
- Name and address of the contact person for repair and maintenance, in case of non-functionality of the solar street lighting system.

List of BIS standards applicable for components of Solar PV Applications

Sl. No.	Product	Indian Standard Number	Title of Indian Standard