

**(TENDER FOR SUPPLY, INSTALLATION AND  
MAINTENANCE OF SOLAR STREET LIGHTS, SOLAR  
SETUP AT SCHOOL, SOLAR SETUP AT ANGANWADI,  
SOLAR GARMENT UNIT AND DRYER)**

(This document is meant for the exclusive purpose of bidding against this specification and shall not be transferred, reproduced or otherwise used for purposes other than that for which it is specifically issued).

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## **1) GENERAL**

Dilasa Janvikas Pratishthan is a pioneering organization in Maharashtra state dedicated for the rural development. The NGO has been working in Water and Women sector, apart from Agri business for the last 33 years. Dilasa is unique organization, which had treated seven lakh ha. of land under different watershed programs, apart from working in water supply, irrigation and aquifer management. The organization is equipped with highly technical and experienced team. The organization is also working under CSR and implementing various developmental projects in Maharashtra, Telangana, Karnataka, Goa, Tamil Nadu, Madhya Pradesh, Gujarat, Delhi, Haryana, Rajasthan and Bihar. Dilasa was honored with many national and international awards for huge contribution in water storage and ground water harvesting. Dilasa is having registered office at B-3, Sudarshan park, Vedant nagar, Opp. MIDC regional office, Railway station road, Chhatrapati Sambhajnagar (Maharashtra).

Dilasa Janvikas Pratishthan (DJP) is implementing Decentralized Renewable Energy Program on behalf of LTIMindtree Foundation where project objectives are Promote access to clean and sustainable energy in rural areas through solar-integrated streetlights, anganwadis, schools, garment unit, and dryers. And Enhance community well-being and livelihoods by improving education facilities, reducing drudgery, ensuring water availability, and supporting agriculture with renewable energy solutions. The project activities involved Set up of Solar street Lights, Set up of School and Anganwadi by Solar and Set up of Solar in Community Service centre (CSC), Solar dryer.

DJP intends to appoint a Contractor for design, supply, installation, commissioning and maintenance of solar-integrated streetlights, anganwadis, schools, garment unit, and dryers.

## **2) SCOPE OF WORK:**

The scope of work shall include but not limited to design, supply, installation, commissioning, maintenance of solar-integrated streetlights, anganwadis, schools, garment unit, and dryers as per condition in this documents and following technical specification:

Details of scope of work shall be installed at following villages.

State	Block (Dist.)	Street lights	School	CSC	Anganwadi	Solar Dryer	Garment
Maharashtra	Wadwani (Beed)	128	0	2	7	0	0
	Surgana (Nashik)	300	5	0	5	4	0
Gujarat	Subir (Dang)	60	5	0	0	0	0
Karnataka	Joida (Uttar Kannada)	0	0	0	24	0	0
	Mundgod (Uttar Kannada)	42	30	0	38	0	0
Tamil Nadu	Alathur (Premabulur)	23	0	0	0	0	1
Telangana	Ghattu (J Gadhwal)	50	0	0	0	0	0
<b>Total (5 states)</b>	<b>(7 blocks)</b>	<b>603</b>	<b>40</b>	<b>2</b>	<b>74</b>	<b>4</b>	<b>1</b>

### **A) Specifications for Solar-integrated Street lights:**

The required 18 W capacity LED based Solar Street Light systems should consist of the following.

**LED Luminary:** 18W LED luminary with inbuilt charge controller to operate dusk to dawn and with 2 core, 2.5 Sq mm copper cable of required length.

**Solar PV Module:** 75Wp (any IEC/BIS Certified make) along with suitable Solar PV module support Structure (Powder coated).

**Battery:** 12.SV / 30Ah Lithium Ferro Phosphate (LiFeP04) Battery (any IEC/UL certified make) integrated panel mounted battery

**Light Source:** White Light Emitting Diode (W-LED). 12 Watt, W-LED luminaire, dispersed beam, soothing to eyes with the use of proper optics and diffuser.

**Light Output:** 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).

**Battery Box:** 250 X 250 X 200 mm of 2 mm thick battery box (Powder coated) with reinforcement as required to house the above battery along with fixing arrangement to GI pole.

**GI Pole:** Length of minimum 5 metre, 3 mm thick (Min 76 mm OD for circular pipe or 130 mm dia at bottom and 70 mm dia at top for octagonal pole) with minimum Galvanizing of 85 microns on hot dip Galvanizing process) along with suitable Luminary arm to fix luminary.

**Anchor Bolts & Base plate:** GI Anchor bolts of dia 20 mm X 600 mm length along with suitable base plate for making foundation to the GI Octagonal pole/ round pipe are to be supplied by the Contractor.

#### **Accessories:**

Hard ware such as GI Nut & Bolts (M10x90, M10x50 & M10x20) and SS Nut & Bolts (M6), for fixing Solar PV module and Battery box and Luminary arm as required.

2.5 Sq sq.mm copper lugs (Ring type).

**Civil Foundation:** The pole is to be installed on civil foundation. The civil foundation casting as required for installation is in the scope of Contractor. All the Civil Foundations will be laid down by Contractor as per the design and specifications to withstand the load of the SSL and wind speed of 150 KMPH, at their cost. The foundation shall be RCC pile foundation in CC (1:2:4).

**The specification may be little bit changed as per the actual ground situation.**

### **B) Specifications for setup of School by solar:**

Type of System: AC

Bill of Material:

Solar Panel: 585x9 kWp

Battery: 150x8 Ah

Inverter: 6 KVA

Module Mounting Structure: 1 set

Cables, Consumables: As Required

(Note: Don't connect the pump to the Solar System)

No Load wiring and supply of Lights and Fan not included. Estimated design, Actual design may vary based on technical details of the mentioned loads, single/3 phase connections, any modification of MMS

No Load wiring and make additional appropriate provision for light & fans

**The specification may be little bit changed as per the actual ground situation.**

**C) Specifications for setup of Solar in Anganwadi:**

Type of System: AC

Bill of Material:

Solar Panel: 585 Wp x 2

Battery: 150 Ah x 2

Inverter: 1 KVA

Module Mounting Structure: 1 set

Cables, Consumables: As Required

No Load wiring and make additional appropriate provision for light & fans

**D) Specifications for setup of Solar dryer:**

30 kg capacity with 4\*10 feet size

**The specification may be little bit changed as per the actual ground situation.**

**E) Specifications for setup of Solar CSC:**

2kW Off-Grid Solar System

Complete SystemSolar

Panel 545 Quantity 2 Nos

WaareeSystem warranty25

years Solar Inverter1kVA

Gammawarranty

2yearsSolar Battery1nos.

190AH warranty 5 years

**The specification may be little bit changed as per the actual ground situation.**

**F) Specifications for setup of Solar in Garment unit:**

Type of System: AC

Bill of Material:

Solar Panel: 585x9 kWp

Battery: 150x8 Ah

Inverter: 6 KVA

Module Mounting Structure: 1 set

Cables, Consumables: As Required

(Note: Don't connect the pump to the Solar System)

Estimated design. Actual design may vary based on technical details of the mentioned loads, single/3 phase connections, any modification of MMS

**The specification may be little bit changed as per the actual ground situation.**

**CIVIL WORK FOR INSTALLATION OF SYSTEM**

The system should be properly installed at site. The SPV module mounting structure along with pole should be properly grouted depending upon the location and requirement of the site. The grouting should be such that it must withstand the maximum wind speed /storm of 100 KMPH. The pole should be grouted with CC

mixture of 1:2:4 of dia 300 mm having depth of 1000 mm and 200 mm above ground level with 200 mm dia. adequate space should be provided behind the PV module/array for allowing un-obstructed air flow for passive cooling. Cables of appropriate size should be used to keep electrical losses to a bare minimum. All wiring should be in a proper conduit or capping case. Wire should not be hanging loose.

**The specification may be little bit changed as per the actual ground situation.**

### **3) ERECTION, TESTING, COMMISSIONING & MAINTENANCE**

- ❖ The scope of work of the Contractor shall be complete erection of the equipment, cables, auxiliary systems and sub systems under the scope of work.
  - The Contractor shall make all arrangements to deliver the equipment at site by wagons/ trucks/ trailers, build his own stores (covered, uncovered, air-conditioned, if necessary) for the proper storage of equipment, maintain the stores and all related documents and records transport the equipment to site for erection purpose.
  - The Contractor also shall make all security arrangements.
  - The Contractor should have in-house testing lab facility.
  - The Contractor shall be responsible for proper, quick retrievable and neat storage and also undertake the conservation of all consignments including damaged boxes.
  - During storage of equipment, the Contractor shall take into account deterioration and carry out the re-conservation of the complete equipment/parts/supplies as may be necessary as per the storage instructions of the Manufacturer of equipment/components if required.
  - The Contractor shall also supply the consumables required for such re-conservation work and repair/ replace parts required thereof for the proper functioning of the equipment after erection and commissioning.
  - The Contractor shall retrieve the equipment/ materials from stores and transport the same to erection site.
  - The Contractor shall unpack and do visual checking against physical damages to the equipment/cases, clean equipment before start of erection. Damage/ shortage, if any, shall be reported to the Employer/ Consultant and shall be rectified/replaced expeditiously, so as not to upset the erection and commissioning schedule.
  - The Contractor shall provide all necessary erection equipment and tools & tackles including material handling equipment, cranes, compressors and other equipment and instruments and consumables, all commissioning equipment and instruments, welding equipment, winches, alignment tools, precision levels, etc., which may be required for carrying out the erection and commissioning work efficiently.
- ❖ All instruments shall be properly calibrated before use. Unless otherwise specified, the above erection equipment/ materials shall be the property of the Contractor. However, Employer's prior permission shall be required for removal of these erection equipment/ materials from the site.

- The Contractor shall ensure that proper procedure and documentation is maintained at entry gate of the site premises for such items as might be carried back by the Contractor after completion of work.
  - The Contractor shall provide all erection consumables like oxygen and acetylene gas, welding rods, solder lugs, oil, grease, kerosene, cotton waste, etc. required for erection of equipment and steel structures.
  - The Contractor shall construct and maintain his own site offices and stores as required for the work and arrange for maintaining in the area placed at the Contractor's disposal in a neat manner.
  - The Contractor shall provide his scheme for mobilization with Bar Chart indicating clearly the resources, manpower and machinery proposed to be deployed to ensure timely completion of work and quality of workmanship.
- ❖ On request, DJP may help the Contractor by providing any special handling/construction equipment needed in the interest of work subject to availability and on payment of hire charges and other conditions of Employer. The charges shall be recovered from any bill of the Contractor due immediately thereafter.
  - ❖ All safety, health and pollution control measures as required to be adopted as per the Statutory Regulations and the Safety conditions for Contractors issued along with the tender or otherwise required or implied by regulations or practices shall be strictly followed by the Contractor during the execution of the Contract. The Contractor shall set up a suitable safety organization of his own at site in this regard.
  - ❖ All the facilities to Contractor's Personnel / Workmen such as transportation, shelter, food shall be arranged by the Contractor.
  - ❖ As the time is essence of the contract, the Contractor shall deploy sufficient Supervising, erection, operating & maintenance personnel and all raw materials, utilities & services required for installation & commissioning for completion of work as per the contract condition.
  - ❖ The results of pre commissioning Test, start-up tests and commissioning report shall be recorded jointly by the Contractor and the DJP and complete report shall be duly submitted by the Contractor.
  - ❖ The Contractor shall rectify the defects observed during the Commissioning period promptly.

#### **4) WARRANTY**

- ❖ The street lighting system (including the battery) will be warranted for a period of five years from the date of supply.
- ❖ The supplied Solar PV shall carry a warranty of minimum 25 year. 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.
- ❖ The complete Solar PV based standalone LED Streetlights including the mechanical structures, electrical works including power conditioners /charge



controllers/ maximum power point tracker units/DC circuit drivers/distribution boards/digital meters/ switchgear/ storage batteries, etc. and overall workmanship of the SPV power plants/ PV lighting systems installed and commissioned must be warranted against any manufacturing/ design/ installation defects for a minimum period of 5 years from the date of Commissioning.

- ❖ The warranty will be against breakages, malfunctions, non-fulfillment of guaranteed performance and breakdowns due to manufacturing defects or defects that may arise due to improper operation of electrical /electronic components of the system but do not include physical damages by the end users.
- ❖ The above warranty shall take effect from the date on which the system is taken over by the purchaser after commissioning.
- ❖ The Contractor shall be liable to make good the loss by replacing the defective product during the warranty period for the entire system with free of cost.
- ❖ The warranty will cover all the materials and goods involved in the installation and commissioning of Solar PV based standalone LED Streetlights. The mechanical items, electrical/electronic items including Charge controller/batteries/LED luminary etc. and overall workmanship of the Solar PV based standalone LED Streetlights must be warranted against any manufacturing/design/ installation defects for a minimum period of 5 years.
- ❖ During the 5 years warranty and comprehensive AMC period, DJP will have all the rights to cross check the performance of LED based solar streetlights. DJP may carry out the frequent inspections of the installed SSL and randomly pickup to get them tested at Government / MNRE approved any test centre. If during such test of the SSL or its any component is not found as per specified technical parameters, DJP will take the necessary action to recover the losses and blacklist the firm. The decision of DJP in this regard will be final and binding on the tenderer.

## **5) AMC (Annual Maintenance Contract)**

- ❖ The party has to provide the support services for the solar street light system free of cost for a period of one year from the date of completion of installation and handover.
- ❖ The AMC will be awarded for a period of five years and during which party has to maintain the solar street lighting system. This includes the removal of vegetation/creepers which surrounds the Pole.
- ❖ The AMC will be awarded on year on year basis and the price will remain firm as quoted in the offer submission.
- ❖ During AMC Party has to visit minimum 4 times, i.e, quarterly in a year and apart from that if there is any defects during the period party has to attend the same within two days.
- ❖ The AMC Charges as quoted by the Party will be specified in the contract and which will remain firm for the AMC period, i.e, 5 years.

## **6) COMMERCIAL DETAILS**

- ❖ At the time of allocation of projects, the bidder shall pay PSD @ 20% on the work order value. This PSD amount shall be paid Online/DD to M/s DJP, Account no: 50160013747279, BANDHAN BANK, Aurangabad branch, IFSC Code: BDBL0001013 (fifth, sixth, seventh & ninth characters are 0 'zero') as a security deposit for issue of work order.

## **7) FINANCIAL TURNOVER**

- ❖ The firms having Turnover not less than of amount of Rs. 10 lakh in any one financial year during the last 05 Financial Years (i.e. FY: 2020-21, 2021-22, 2022-23, 2023-24 and 2024-25) for which the firm should obtain Turnover Certificate containing last 5 (Five) financial years (i.e. FY: 2020-21, 2021-22, 2022-23, 2023-24 and 2024-25). Turnover duly certified by Chartered Accountant (CA) along with UDIN. Certificate issued by Chartered Accountant with UDIN (Unique Document Identification Number) must be uploaded. The certificate is mandatory
- ❖ Technical Eligibility :Requisite experience of at least in field of Grid Connected Solar PV systems installed at Ground Mounted I Rooftop/ Solar Pump Sets installation in any (1) of during the last 05 FYs (i.e. FY: 2020-21, 2021-22, 2022-23, 2023-24 and 2024-25). Documents related to technical experience, such as work orders, invoices, and project completion reports of previous projects should be submitted.

## **8) PAYMENT TERMS**

- ❖ 75% of Work Order value will be settled on Survey, installation, commissioning and Synchronization of the systems to the Concerned bidder after joint inspection of DJP officials, beneficiary and the bidder, duly deducting statutory deductions.
- ❖ The bidder shall submit certificate from chartered accountant with UDIN stating that the GST compliances to the respective invoices including the payment of taxes, under proposal to release 75% payment.
  - 25% of work order value will be paid after 90 days from the date of Synchronization of the plant and based on performance after joint inspection of DJP officials, supplier along with the concerned beneficiary and basing on satisfactory report of inspecting officer on receipt of Central subsidy from MNRE by DJP.
  - Payments will be released time to time on submission of required on submission of required documents for the commissioned system.

## **9) MATERIAL STANDARDS OF TECHNICAL SPECIFICATION:**

- ❖ Additional Anti-Theft and Physical Security Measures
  - To ensure the long-term sustainability and safety of solar pump installations, the following mandatory anti-theft and physical security provisions shall be incorporated by the bidder:

### **1. Robust Physical Security**

- Mounting Structures shall be made of tamper-resistant designs using reinforced brackets and frames.
- Use of anti-theft/anti-tamper fasteners (e.g., tamper-proof bolts/screws) is mandatory for securing panels and mounting systems.
- Pump controller and control units shall be housed in lockable, weatherproof enclosures with provision for physical padlocks and anti-tamper seals.

### **2. Stolen Asset Traceability:**

Registration of component serial numbers with manufacturers and project authority to prevent unauthorized resale.

**Format For Security Deposit / Bank Guarantee For - Supply,  
Installation And Maintenance Of Solar Street Lights, Solar Setup At  
School, Solar Setup At Anganwadi And Solar Garment Unit**

This Deed of Guarantee made on this     day of (Month & Year) by [Name & Address of the Bank] (hereinafter referred to as the "GUARANTOR") of the one part, on behalf of M/s [Name & Address of the Firm] (hereinafter referred to as the "FIRM") in favor of Chairman, Dilasa Janvikas Pratishthan (DJP), Chhatrapati Sambhajinagar on the following terms and conditions:

Whereas the vide "Tender No" \_\_\_\_\_, issued on \_\_\_\_\_ by Dilasa Janvikas Pratishthan (hereinafter referred to as "DJP"), having its Registered Office at B-3, Sudarshan park, Vedant Nagar, Opp. MIDC regional office, Railway station road, Chhatrapati Sambhajinagar (Maharashtra) - 431005 in favour of M/s ..... (Name of Firm), having its address at ..... towards participation in the said tender for "Work for " Supply, installation and maintenance of solar street lights, solar setup at school, solar setup at anganwadi and solar garment unit for an aggregated terms and conditions as mentioned in the tender document with 5 years comprehensive maintenance at the site locations as per the Tender document towards EMD to participate in the tender as a bidder.

Known all persons by these presents that the GUARANTOR hereby undertakes to indemnify and keep DJP indemnified up to the extent of Rs. (in words-----) for MW. This bank guarantee shall remain valid for a period of Six (6) months and authorizes DJP to recover the guaranteed amount directly from the GUARANTOR in case of default mentioned in the said Tender. This bank guarantee shall remain in full force and effect until its expiry or any extended period, if extended by the GUARANTOR. The liability under this guarantee shall be binding on the GUARANTOR and its successors.

Whereas the GUARANTOR further agrees that its liability under this guarantee shall remain unaffected by any changes in the offer or its terms and conditions between the Firm and DJP, whether such changes are made with or without the consent or knowledge of the GUARANTOR.

Whereas the GUARANTOR further agrees to pay the guaranteed amount, or any part thereof, upon receipt of the first written demand from DJP at any time during the validity of this guarantee. The GUARANTOR shall make the payment to DJP immediately, without any question, demur, reservation, or correspondence.

Whereas the GUARANTOR hereby agrees not to revoke this guarantee during its validity period, except with the prior written consent of DJP. Notwithstanding anything contained herein

1. Our liability under this performance bank guarantee shall not exceed Rs. ----- (in words -----)

2. This performance bank guarantee shall be valid up to .....

3. We are liable to pay the guaranteed amount or any part thereof under this performance bank guarantee and only against the written claim or demand on or before Sealed with the common seal of the bank on this ..... day of Month and Year

Witness:

1.

2

(Signature and seal of Bank)

**Format For Performance Bank Guarantee For - Supply, Installation  
And Maintenance Of Solar Street Lights, Solar Setup At School,  
Solar Setup At Anganwadi And Solar Garment Unit**

This Deed of Guarantee made on this     day of (Month & Year) by [Name & Address of the Bank] (hereinafter referred to as the "GUARANTOR") of the one part, on behalf of M/s [Name & Address of the Firm] (hereinafter referred to as the "FIRM") in favor of Chairman, Dilasa Janvikas Pratishthan (DJP), Chhatrapati Sambhajinagar on the following terms and conditions:

Whereas the vide "Tender No" \_\_\_\_\_, issued on \_\_\_\_\_ by Dilasa Janvikas Pratishthan (hereinafter referred to as "DJP"), having its Registered Office at B-3, Sudarshan park, Vedant Nagar, Opp. MIDC regional office, Railway station road, Chhatrapati Sambhajinagar (Maharashtra) - 431005 in favour of M/s ..... (Name of Firm), having its address at ..... towards participation in the said tender for "Work for " Supply, installation and maintenance of solar street lights, solar setup at school, solar setup at anganwadi and solar garment unit for an aggregated terms and conditions as mentioned in the tender document with 5 years comprehensive maintenance at the site locations as per the Tender document towards EMD to participate in the tender as a bidder.

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Known all persons by these presents that the GUARANTOR hereby undertakes to indemnify and keep DJP indemnified up to the extent of Rs. (in words-----) for -----MW. This performance bank guarantee shall remain valid for a period of \_\_\_\_\_ months and authorizes DJP to recover the guaranteed amount directly from the GUARANTOR in case of default mentioned in the said Tender & LOA. This performance bank guarantee shall remain in full force and effect until its expiry or any extended period, if extended by the GUARANTOR. The liability under this guarantee shall be binding on the GUARANTOR and its successors.

Whereas the GUARANTOR further agrees that its liability under this guarantee shall remain unaffected by any changes in the offer or its terms and conditions between the Firm and DJP, whether such changes are made with or without the consent or knowledge of the GUARANTOR.

Whereas the GUARANTOR further agrees to pay the guaranteed amount, or any part thereof, upon receipt of the first written demand from DJP at any time during the validity of this guarantee. The GUARANTOR shall make the payment to DJP immediately, without any question, demur, reservation, or correspondence.

Whereas the GUARANTOR hereby agrees not to revoke this guarantee during its validity period, except with the prior written consent of DJP. Notwithstanding anything contained herein

1. Our liability under this performance bank guarantee shall not exceed Rs.----- (in words ----- )
2. This performance bank guarantee shall be valid up to .....
3. We are liable to pay the guaranteed amount or any part thereof under this performance bank guarantee and only against the written claim or demand on or before Sealed with the common seal of the bank on this ..... day of Month and Year

Witness:

- 1.
- 2

(Signature and seal of Bank)

Sd/-  
Secretary  
Dilasa Janvikas Pratishthan  
Chhatrapati Sambhajnagar  
Maharashtra