

Material Code: HY8314007412

PR No: ~~5000014169~~ 1600005901 *tdh*

A) Specification for 50 Numbers of Solar Street Lights for use in factory area

S.N	Item	Parameters	Suppliers Comments YES/NO
1	Light Source	White Light Emitting device (W- LED), 14 Watt or more.	
2	PV Module	70Wp minimum, BHEL make	
3	Battery	Lead Acid, tubular positive plate flooded electrolyte or Gel / Type. 12V-60AH (minimum) @ C/10 Make: Exide/Amara Raja/HBL. With 5 years warranty.	
4.	Autonomy	3 days	
5.	Duty Cycle	Automatic Dusk to Dawn	
6	Mounting	4 meter pole mounted from the ground surface to light fitting	
7	Light Output	Minimum 15 Lux when measured at the periphery of 4 meter diameter from the height of 4 meter. The illumination should be uniform without dark bands or abrupt variations, and soothing on the eye. Higher Light output will be preferred.	
8	Electronics Efficiency	As per MNRE guidelines	
9	SCOPE	Supply comprises Lamp, Pole , Battery, Battery Box, PV Module, and Module mounting structure, Luminaries assembly, powder coating, Adequate connectivity within the system along with cables. Civil works like digging pits and concrete Grouting for the Pole is in vendor's scope. The vendor has to take complete responsibility for Installation, numbering and Commissioning Of solar street Lights in BHEL premises. Warranty period of 5 years for street lighting system including battery.	
10	MNRE	Bidder must be MNRE – Govt. of India approved vendor Under White LED (W-LED) Based Solar Street Lighting System.	
11	Spares	Following spares in addition to the 50 numbers to be included in the scope. a) PV modules - 2 no b) Luminaire with assembly - 5 nos. c) Electronic card - ECU with inverter & DDC - 10 nos d) Electronic card - LED Driver - 10 nos e) Batteries - 5 nos	

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12	Warranty	The supplier shall warranty for 5 years against all the accessories, including Luminaire, battery, PV module, control unit and auto dusk to dawn system and replace if any faulty Free of cost during warranty period.	
13	General terms and Conditions	<ol style="list-style-type: none"> 1. All equipment shall be suitable for outdoor conditions like rain and sun for temperature Variations between 5° to 50°C. 2. The equipment shall be offered for inspection before Dispatch at Bidder's works. Only after obtaining clearance in writing from BHEL , the solar street lights can be shipped. 1 week prior information has to be given for deputation BHEL personnel for inspection. 3. The vendor is required to submit test certificates of PV modules, Luminaires, battery, Electronics, Electronic protection etc. at the time of inspection. 	
13	Prequalification	<ol style="list-style-type: none"> 1. The bidder must have successfully executed at least 2 similar work contracts of supply and installation of solar street lights (14W or above) out of which 1 must be on Govt / PSU undertakings earlier. In this respect, necessary purchase orders and performance certificates to be enclosed along with technical bid failing which offer may not be considered for acceptance. 2. In case the bidder is a distributor or dealer for any Organization supplying solar street lights. Valid proof that the bidder is distributor / dealer needs to be Furnished. 	

QUALITY AND WARRANTY

- The street lighting system (including the battery) will be warranted for a period of five years from the date of supply.

OPERATION and MAINTENANCE MANUAL

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

1. Basic principles of Photovoltaic.
2. A small write-up (with a block diagram) on Solar Street Lighting System - its components, PV module, battery, electronics and luminaire and expected performance.
3. Type, Model number, Voltage & capacity of the battery, used in the system.
4. The make, model number, country of origin and technical of W -LEDs used in the lighting system.
5. About Charging and Significance of indicators.

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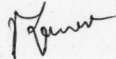
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6. Clear instructions about erection of pole and mounting of PV module (s) and lamp housing assembly on the pole.
7. Clear instructions on regular maintenance and trouble shooting of the Solar Street Lighting System. DO's and DONT's.
8. Name and address of the contact person for repair and maintenance, in case of non-functionality of the solar street lighting system.

SCOPE OF SUPPLY

Scope of supply includes the following:

1. Supply of lamp, pole, Battery, Battery Box, PV Module, and Module mounting structure, Luminaire's assembly, powder coating, adequate connectivity within the system along With cables.
2. Installation, numbering and commissioning of the solar street lights.
3. Civil works like digging and concrete grouting.
4. Vendor has to take responsibility of completion of work in BHEL premises.
5. Maintenance until the warranty period is also under the scope of the supplier.


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