



SRI LANKA SUSTAINABLE ENERGY AUTHORITY (SLSEA)

National Shopping

Invitation of Quotations

For

Supply, Delivery, Installation, Commissioning and Maintenance of 80 Nos.

Solar Powered Street Lamps for Kiriibban Wewa and Chandrika Wewa

Floating Solar Project

Procurement No: SEA/PD/RES/27-2024

BIDDING DOCUMENT



Sri Lanka sustainable Energy Authority
No.72,Ananda Coomaraswamy Mawatha,
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INVITATION

01.11.2024

Dear Bidder,

Procurement of Procurement of Supply, Delivery, Installation, Commissioning and Maintenance of 80 Nos. Solar Power Street Lamps for Kiriibban Wewa and Chandrika Wewa Floating Solar Project**ITB**

1. You are invited to submit the most competitive quotation for the items listed in Table A.

Sri Lanka Sustainable Energy Authority (SLSEA) has decided to install solar powered Street lamps in the floating solar project of Kiriibban wewa and Chandrika wewa. Therefore bidders are invited for bids to **Supply, Delivery, Installation, Commissioning and Maintenance of 80 Nos. Solar Powered Street Lamps for Kiriibban Wewa and Chandrika Wewa Floating Solar Project.**

2. **Table - A**

Address	Requirement
Floating Solar Power Plant Sri Lanka Sustainable Energy Authority, Siri Dewagama, Kiriibban wewa, Sewanagala	Supply, Delivery, Installation, Commissioning and Maintenance of 51 Nos. Solar Powered Street Lamps (48 Nos of 15W Solar LED and 3 Nos of 30W Solar LED)
Floating Solar Power Plant Sri Lanka Sustainable Energy Authority, Paper Mill Road Kirivilayaya, Thunkama, Embilipitiya.	Supply, Delivery, Installation, Commissioning and Maintenance of 29 Nos. Solar Powered Street Lamps (22 Nos of 15W Solar LED and 7 Nos of 30W Solar LED)

3. You are required to provide a commentary of compliance with specifications (see table 2) against each item in Table 1, Bidders Response to the Specifications.
4. **Bid Price**
 - a) The contract shall be for the full quantity for items as described in the Table 1. The bidders should quote all items.
 - b) The prices shall be given in Table 3, in Price Schedule.

- c) Prices for Goods supplied shall include all duties, sale and other taxes already paid or payable on the finish product, raw materials and components. However, VAT shall be indicated separately in the space given. The prices shall also include the transport to the site, installation, commissioning and other associated cost whatsoever.
- d) The rates quoted by the bidder shall be fixed for the duration of the contract and shall not be subject to adjustment on any account.
- e) Corrections, if any, shall be made by crossing out, initialing, dating and rewriting.
- f) The Prices shall be quoted in Sri Lanka Rupees only. If it is not, that bid will be rejected.

5. Qualification and Evaluation Criteria

Eligibility Information

- (i). Bidder should be founded at least before Five (05) years prior to the bid submission deadline.
- (ii). The bidders should have previous experience of Supply, Delivery, Installation, Commissioning and Maintenance of Solar Powered Street Lamps at least Five (05) years prior to the bid submission deadline.
- (iii). The bidders should have previous experience of Supply, Delivery, Installation, Commissioning and Maintenance of Solar Powered Street Lamps 500 Nos. Solar Powered Street Lamps installation in 10 sites in Sri Lanka.
- (iv). Bidder shall not have been blacklisted
- (v). Bidder should have the certificate of business registration issued by a government authority for companies. Local authority issued business registration shall not be considered.
- (vi). Bidder should have obtained valid registration from Sri Lanka Sustainable Energy Authority (**SLSEA**) for " Soorya Bala Sangramaya" under PV system installation and registration shall be at least before five (05) years prior to the bid submission deadline.
- (vii). Bidder should have financial strength and should be able to execute this contract without financial failure and attend required after sales services for the committed time period. Submission of audited balance sheets and income statements for three (03) years from 2020 to 2021 including 2023 to demonstrate the current soundness of the Bidder's financial position and its prospective long-term profitability

Note

Bids will be rejected as non-responsive if documentary evidence in proof of above has not been provided.

Evaluation Criteria

- a. After opening the bids, the Technical Evaluation Committee (TEC) will undertake the detail study and evaluation of the bids received to determine the substantially responsive bidders among others and after that ranking of ascending as per considering the price.
- b. Prior to the detail evaluation of bidders, the TEC will determine whether each Bidder has fulfilled the followings. Bids are rejected if they do not have the following.
 - (1) Meets the eligibility criteria mentioned above
 - (2) Whether required documents are submitted properly and signed
 - (3) Substantial responsiveness of the bidder to the requirements/conditions
 - (4) Necessary warranty required
 - (5) Past experience and performances
 - (6) Human resources availability of the company and WC Insurance
 - (7) Previous/Present client list
- c. After that preliminary examination of above, the TEC will attend to a detail examination (technically and financially) with considering the following
 - (1) Conformity with specifications
 - (2) Complied with SLS standards
 - (3) Financial Stability
 - (4) After Sale Service
 - (5) Delivery Schedule
 - (6) Installation and commissioning period
 - (7) Total Price
 - (8) Technical Capacity
 - (9) Able to maintain the spare parts after warranty period
 - (10) Technical verification certificates of all parts of the system

The Quotation would be evaluated together each item as indicated in table 1.

6 Document

The following documents shall be submitted along with the Bid;

1. Catalogues and Test report with technical literature of the offered units
 2. Duly filled and signed technical schedule
 3. Schematic drawings for panel layout, electrical drawings of the solar-powered street lamps
 4. Previous supply records of the bidder.
 5. Certificate from an internationally recognized testing laboratory or organization to confirm the quality of the equipment
 6. Warranty contract and associated documents
 7. SLSEA valid registration certificate under the " Soorya Bala Sangramaya"
- 7** Each bidder shall submit only one quotation. Alternative offers (options or multiple bids) shall not be considered. The bidders are advised not to quote different options for the same item.

8. Validity of Quotation

Quotation shall remain valid for a period not less than 90 days from the deadline date specified.

9. Award of Contract

The Purchaser will award the contract to the bidder whose quotation has been determined to be substantially responsive and who has offered the lowest evaluated price.

- 8.1 Notwithstanding the above, the Purchaser reserves the right to accept or reject any quotations and to cancel the bidding process and reject all quotations at any time prior to the award of contract.
- 8.2 The bidder whose bid is accepted will be notified of the award of contract by the SLSEA prior to expiration of the quotation validity period. The terms of the accepted offer shall be incorporated in the purchase order.

10. Delivery

Delivery and installation period are 14 days from issuing the acceptance letter,

11. Payment shall be made as follows

1. 30% of the quoted price will be paid once all the items are received and delivered to the site or to an agreed location after certification of the TEC
2. Another 60% of the quoted price will be paid after commissioning and on recommendation of TEC.(Progress basis)
3. The remaining (Retention) 10% of the quoted prices will be paid in after 365 days on recommendation of TEC.

12. Unless specified in the specifications, normal commercial warranty/ guarantee shall apply to the supplied goods. If warranty/ guarantee requirements are specified in the specifications, the goods supplied shall comply with those requirements.

13. The bidder should submit a certificate from the manufacturer to demonstrate that it has been duly authorized by the manufacturer or producer of the goods to supply these goods in Sri Lanka.

14. The bidder should clearly state after sale service & maintenance procedure.

15. The bidder should demonstrate system to the end user after operation properly.

16. The law of Democratic Socialist Republic of Sri Lanka is applicable.

17. Bid Submission

Sealed bids marked "SUPPLY, DELIVERY, INSTALLATION, COMMISSIONING AND MAINTENANCE OF 80 NOS SOLAR POWER STREET LAMPS FOR KIRIIBBAN WEWA AND CHANDRIKA WEWA FLOTING SOLAR PROJECT" on the top left hand corner should be handed over to the Procurement Division of SLSEA or by registered post to reach the Procurement Division, Sri Lanka Sustainable Energy Authority, No 72, Ananda Coomaraswamy Mawatha, Colombo 07 on or before **18th November 2024 at 10:30 hrs**. If the quotation is not sealed and marked as required, SLSEA will assume no responsibility for the misplacement or premature opening of the quotation. The quotation will be opened immediately after the closing time and a representative of the bidders may be present and mark its attendance. Late submissions will be rejected and returned unopened to the bidder.

As per the Public Contract Act No 3 of 1987, the prospective bidders shall be registered in Department of Register of Companies through <https://eroc.drc.gov.lk/> website and submit a PCA 3 certificate along with their bid.

If there is any further clarification needed, please contact Procurement Division of SLSEA on 0112271586

We look forward to receiving your quotations.

Director General
Sri Lanka Sustainable Energy Authority

SCOPE AND TECHNICAL SPECIFICATIONS FOR – SOLAR POWER STREET LAMPS

Procurement of Supply, Delivery, Installation, Commissioning and Maintenance of 80 Nos. Solar Power Street Lamps for Kiriibban Wewa and Chandrika Wewa Floating Solar Project

Item No.	Descriptions	Required specification
1	Solar Panel/ Module	60Wp or more
2	LED Lamp	LED Luminaire 20 W (+20% permissible) with Motion sensor to / 5400 lm
3	Colour Temperature	5000 K
4	Battery	LiFeP04 – Li- ion, capacity 205Wh or above
5	GI Pole	GI pole coated with rubber paint Height - 5m above ground level

Objective

The contractor shall supply, design, and establish 80 solar-powered street lights at the floating solar sites of Kiriibban Wewa and Chandrika Wewa. The lights are to be installed as per the specifications outlined in this document.

The contractor shall install solar street lights in key areas, including along the earth dams, roads, near Inverter Stations, and at the fishing ports to enhance safety and community needs.

Site visits are mandatory before submitting the bid to understand specific conditions and requirements.

Submission of a comprehensive project completion report, including performance assessments of the installed solar lighting system should be provide to the authorities.

Scope of works shall include:

1. All necessary Spare parts/Tools have to be provided by the contractor. b. Suitable Carrying case (if possible) should be provided by the contractor.
2. The complete Set of Goods shall be warranted by the contractor against any manufacturing/ design/ installation defects for a minimum period of 3 years from the date of installation.
3. The contractor will make all necessary arrangements for satisfactory operation, maintenance and performance of the Goods during 5 year's Warrantee/Guarantee period.
4. Rectification of all the defects developed in the Goods during Warrantee/Guarantee period shall have to be done by the contractor promptly, at the most within 7 days from the date of receipt of compliant.
5. Warrantee/Guarantee will include rectification /replacement of all the defective and consumable components/items. During Warrantee/Guarantee period, all the arrangements for keeping all the goods functional shall be the sole responsibility of the contractor.
6. After completion of the proposed works, clearances of all temporary works/ materials shall be the sole responsibility of the contractor and this shall be removed immediate after the requirement of such temporary work is completed.
7. All the nonfunctional parts/ materials/ items replaced during the Warrantee/Guarantee period shall be the property of the contractor.
8. The contractor will conduct on-site training of the purchaser's/user's personnel regarding the assembly, start-up, operation, maintenance, and repairs of the Goods.
9. Contractor should have enough experience and qualified technical staff to do design, installation, and support.
10. The contractor should have experience of 5 years in similar PV system projects.
11. All works carried-out by the contractor should be maintained and ensure proper functioning of street light for five years starting from the date of final acceptance.
12. The contractor shall install the solar powered street lights in accordance with the design provided and shall meet all requested warranties and other requirements.
13. The contractor will be responsible for cleaning of the solar PV module for at least five years from the date of installation and commissioning.
14. The civil works for the proposed Solar Street Lighting System shall include Solar Street Light pole design and installation at the site. The structure should be facing south direction tilted at 15 degree. Pole and Mounting structure must be designed accordingly. It should be able to withstand wind loading of 180Km/hr and support the installed solar modules.
 - Bidder must provide the technical design and drawing of the SSL Pole.
 - Bidder must provide evidence and calculation showing the structure proposed is safe to be put on the top of pole.

- Land clearance for the solar powered street lamps is provided by SLSEA

15. PV MODULE

The PV module(s) should be indigenously manufactured and contain crystalline silicon cells. It required to have certificate for the supplied PV module as per IEC 61215, IEC 61730, and IEC 61701 specifications or equivalent IEC/SLS specifications. The PV module efficiency should be above 16 %. The PV module used should be warranted for its output peak watt capacity, which should not be less than 90% at the end of 10 (ten) years and 80% at the end of 20 (twenty) year's performance warranty.

16. LUMINAIRE

The light source will be a white LED type (Day light) Single lamp or multiple lamps can be used. The colour temperature of white LED (Day light) used in the system should be in the range of 3000°K–6500°K. Use of LEDs which emits ultraviolet light is not permitted. The light output from the white LED light source should be constant throughout the duty cycle. The lamps should be housed in an assembly suitable for outdoor use. The temperature of heat sink should not increase more than 20°C above ambient temperature during the dusk to dawn operation. The make, model number, country of origin and technical characteristics of white LEDs/LED Luminaire used in the lighting system must be furnished. The enclosure of luminary should be with IP65 protection.

17. BATTERY

Lithium Ferro Phosphate Battery. Battery should conform to the latest BIS/International standards (IEC 62133). Battery should have minimum 5-year warranty and battery box with IP65 protection.

18. DUTY CYCLE The W-LED

solar street lighting system should be designed to operate from dusk to dawn, under average daily insolation of 5.5 kWh /sq.m. on a horizontal surface.

19. PROTECTION OF EXISTING SERVICES

The contractor is responsible for taking all necessary precautions to avoid damaging existing services (water mains, electricity, sewers) during execution. Any damage must be reported immediately to the Employer, and repair costs will be borne by the contractor.

20. QUALITY AND WARRANTY

Components and parts used in White LED solar street lighting systems should conform to the latest international specifications, wherever such specifications are available and applicable. A copy of the test report/ certificate stating conformity of international standards must be submitted. White LED solar street lighting system including the battery will be warranted for a period of 5 years from the date of commissioning. The PV module used should be warranted for its output peak watt capacity, which should not be less than 90% at the end of 10 (ten) years and 80% at the end of 20 (twenty) years.

The bidder must furnish documentary evidence in the form of literature (catalogue), certified dimensional drawings, and detailed description of goods with essential technical information. All data, drawings, catalogues and other technical documents shall be bound separately from the Bid documents.

Table 01

TECHNICAL SPECIFICATIONS

Descriptions	Required specification			Bidders response
		Yes	No	
LED Source				
Make	Mention			
Product Name	Mention			
Manufacture	Mention			
Country of Origin	Mention			
Typical Luminous Flux	>2500 lm			
Lamp type	LED			
Min. Working Time (Bright Mode)	9 h			
Light Photosensitivity	30 lx			
Charge temperature	0 °C – 60 °C			
Withstand wind Load rate	180 Kmph			
Light Distribution	Mention			
Color Temperature	5000K			
Warranty	Minimum 3 years			
Expected Life Time	Minimum 50,000 hrs			
IP Rating	IP65, IP66			
Certification	Mention			

Intensity angle	Mention			
Height	16 feet			
<u>Solar Module</u>				
Model No	Mention			
Product Name	Mention			
Manufacture	Mention			
Solar Module	Mention			
Module Efficiency	Mention			
Panel Wattage (W)	Mention			
Cell Type	Mono/poly			
Junction Box	Seal-able and moisture resistance			
Frame	Aluminum or resist to corrosion			
Front Glass	Mention iron			
IP (weather Rating)	IP67 or (Mention)			
Warranty	Minimum 10 years			
Expected Life Time	Minimum 20 years			
Standard	IEC 61215, IEC 61730, salt corrosive lest			

<u>Battery</u>				
Model No	Mention			
Battery	Lithium LiFePO4			
Manufacture	Mention			
Battery Capacity	Mention			
Warranty for Battery	Minimum (Mention) 5 years			
Battery Life Time	Minimum (Mention) 5 years			
DOD	Mention			
Autonomy	Mention			
<u>Pole</u>				
Pole	In accordance with the provided design (corrosion resistance suitable for installation in salty environments – GI – Annexure 3)			
Bulb Mounting Height	6.0 m or above ground			
Overhang	Mention			
Pole Diameter	3 inch base or suitable			
Warranty	5 year			
<u>Charge Controller</u>				

Make	Mention			
Model No	Mention			
Type	MPPT or PWM			
Max PV Input Power	Mention			
System Voltage	Mention			
Maximum Charging Current	Mention			
Protection	Battery over voltage & under voltage cut-off, Reverse polarity, Reverse current at night, Lightning protection			
Low Battery Load Disconnect	Mention			
Low Battery Load Reconnect	Mention			
Self Consumption	Mention			
Certification	Mention			
<u>Other Features</u>				
Expected Life Time of the System	Mention			
Working Time	Mention			
Working Temperature	0° C to 85° C			
Standard for solar panel	IEC 61215, IEC 61730, salt corrosive lest			
IR Sensor	Mention			

Quality Management	ISO 9001: 2008 or Equivalent			
IP	65 or More			

Annexture 01

Types of Solar Street Lights Required

For the Solar Street Lighting Project at Kiriibban Wewa and Chandrika Wewa, two distinct types of solar LED street lights are required to address the specific lighting needs of the area:

no	location	description	15W Solar LED	30W Solar LED
1	Kiriibban wewa	Along the Dam Road	38	
		Along the road to inverter staion	10	
		Fishing Port		3
2	Chandrika Wewa	From main road to the site premises	15	
		Covering all four directions and site entrance	6	
		Fishing Port	1	5
		Should cover the bathing port		2
			70	10

GPS Locations of Solar Street Lights in Kiriibban wewa

KIRIIBBAN WEWA SOLAR STREET LIGHT LAYOUT

CHANDRIKA WEWA SOLAR STREET LIGHT LAYOUT



Legend

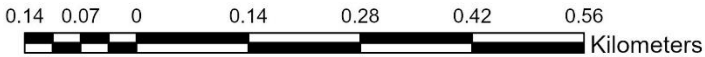
Solar Street Light

Capacity

- 15w
- 30w



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இலங்கை நிலைபெறுதல் சக்தி அதிகாரசபை
Sri Lanka Sustainable Energy Authority



GPS Locations of Solar Street Lights in Chandrika wewa

N.B. Please provide proof document for above features

Name of the Bidder :

Signature of the Bidder :

Date :

Common Seal :

SCHEDULE OF REQUIREMENTS

_Table – 02

Item No.	Items	Quantity
1	Solar Panel	
2	LED Flood Lamp	
3	Battery	
4	Charge Controller	
5	Cable, Connection Box and other required system components	
6	Nos of Poles	

PRICE SCHEDULE

Table: 03

Item. No.	Description	Place of Delivery & installation	Contract Period in Days from issuing of Purchase Order	Unit Price	Any Discount offered	Qty.	Total Amount (Rs. &Cts.)	VAT (Rs. &Cts)
1.	Supply, Delivery, Installation, Commissioning and Maintenance of 80 Nos. Solar Power Street Lamps for Kiriibban Wewa and Chandrika Wewa Floating Solar Project	See Table A	30 Days (Including Supply, Delivery, Install & commissioning)	15W Solar LED				
				30W Solar LED				
Total								

We agree to supply, delivery, installation, commissioning & maintenance the above goods in accordance with the technical specifications for a total contract price of Rupees..... (amount in figures)..... (amount in words) within the period specified in the Invitation for Quotations.

We also confirm that the warrantee/guarantee specified shall apply to the offered goods.

.....

.....

.....

Signature of the Bidder & Common Seal

Name of the Bidder

Date

Note: All expenditure should be included to the above bid price. Any request for the extra payment will not be considered during the installation except unavoidable reason.

Table: 04

Item. No	Descriptions	Bidders Response
1	Availability of stocks	
2	Validity of offer from closing date	
3	How many years do you offer the free of charge service for the system?	
4	Taxes (Pls. attach copy of VAT certificate of registration, if any)	
5	After sale service(Maintenance) i. How many dates/hours are required to attend from the failure notified date? ii. How do you arrange to sign the service agreement after system warranty period ? iii. How many days are needed to repair the item from notified date ?	

Other Conditions of this supply are as follows:

1. The Goods Supplied under this Contract shall confirm to the technical specifications and standards mentioned above.
2. The Supplier warrants that all the Goods are new, unused, and of the most recent or current models, free from defects and that they incorporate all recent improvements in design and materials:
3. The warranty shall remain valid for the period given above , after the Goods , or any portion thereof as the case may be , have been delivered to and accepted at the final destination indicated:
4. If the supplier, as liquidated damages, a sum equivalent to the 0.5 % per each day, of the delivered price of the delayed Goods.
5. Upon the Supplier's fulfillment of all obligations stipulated above and making a request for payment to the purchaser in writing, accompanied by invoices describing, as appropriate, the Goods delivered payments shall be made by the purchaser.

.....
**Signature of the Bidder &
Stamp Common Seal**

Quotation Submission form

Date:..... 2024

To: Director General
Sri Lanka Sustainable Energy Authority
No 72,Ananda Coomaraswamy Mw,
Colombo 07.

We, the undersigned, declare that:

- (a) We have examined and have no reservations to the document issued,
(b) We offer to supply in conformity with the documents issued and in accordance with the delivery, Install, commissioning and maintenance specified in the schedule of requirement the Supply, Delivery, Installation, Commissioning and Maintenance of 80 Nos. Solar Power Street Lamps for Kiriibban Wewa and Chandrika Wewa Floating Solar Project
(c) The total price of our quotations including any discounts offered is.....(Rs.....)
(d) Our quotation shall be valid for the period of time specified in ITB Clause 6, from the date fixed for the quotation submission deadline in accordance with as specified in ITB 16 and it shall remain binding upon us and may be accepted at any time before the expiration of that period,
(e) We understand that this quotation, together with your written acceptance thereof included in your notification of award, shall constitute a binding contract between us,
(f) We understand that you are not bound to accept the lowest evaluated quotation or any other quotation that you may receive.

Signed:
Name:
Dated:

Inspections and Tests Report

Item No	Description	Serial No/Items	Physical Condition		Working Condition	
			Good	Bad	Good	Bad
1						
2						
3						
.						
.						
.						
.						
.						
.						
78						
79						
80						

Above report will be provided by contactor after commissioning the system

Check List for Bidder

No	Item	Yes(tick)	Reference
1	Table 02		
2	Table 03		
3	Table 04		
4	Product Certifications		
5	Manufacture Authorization letters		
6	Brochures/Manuals		
7	VAT certificate of registration(if any)		
8	Each Warranty		

