



GOVERNMENT OF KERALA
KERALA FOREST DEPARTMENT

KFDDO/55906/2025-DFONMR/D

Date: 09.03.2026

E-TENDER NOTICE

Online tenders in Two Bid system (Technical and Financial bids) are invited from reputed firms for the **“Supply, Installation, Testing and Commissioning of Solar Fencing”** for use in Kerala Forest Department by Divisional Forest officer Nemmara. The Solar Fencing should conform to the technical standards and specifications detailed in **Annexure A** attached to this notice. Tender documents and schedules are available in the website: www.etenders.kerala.gov.in. The Earnest Money Deposit and tender fee should be submitted through the Internet online banking of SBI or through NEFT for other banks.

All bid/tender documents are to be submitted online only and in the designated Online cover(s)/envelope(s) on the www.etenders.kerala.gov.in website and tenders submitted manually /through post will not be entertained. Late tenders will not be accepted.

Details of Tender fee and PAC amount is as follows:

Sl. No	Item	Length in Kilometre (approx.)	PAC (Rs. in lakhs)	EMD (2.5%)	Tender Fee (Rs)
1	Cost of Re Construction of 5 Line SPF from Olakara to Pothuchadi (3.2 Km) under Vadakkanchery Section of Alathur Range during 2025-26	3.2 Km	6.50	16,300/-	1300/-+ GST

The other details regarding this tender are as follows:

(i)	Period for completion	Within 90 days from the date of agreement
(ii)	Mode of Payment	Online payment after the successful completion of the works
(iii)	Place to be delivered	As per Annexure A
(iv)	Date from which the tender will be available in the website	09.03.2026, 5 PM
(v)	Last date for receipt of tender (Closing of tender)	16.03.2026, 5 PM
(vi)	Tender Opening Date	17.03.2026, 5 PM

The Length in Kilometers mentioned above is approximate. The KFD will be at liberty to increase or decrease the length/work to be done or may decide not to execute the work at all.

Tenderers are requested to go through the tender conditions before quoting the tender. Online tenders/bids are to be accompanied with a preliminary agreement executed. Tenders/bids received online without the scanned copies of relevant documents, preliminary agreement, will not be considered and shall be summarily rejected. Any further clarifications regarding quoting on this tender/uploading of tender documents can be obtained from NIC/ the e-tender Helpdesk number available in the www.etenders.kerala.gov.in website. With respect to the clarifications regarding the tender conditions and execution of works the tenderer can contact the office of the Divisional Forest Officer, Nemmara during the office hours. The details regarding e-Payment (Bidder's Bank

Account No. where he/she is having core banking facility and email id) should be submitted along with the tender. Tenders without these details will not be accepted. Technical bid and financial bid shall be submitted in their respective designated online covers.

First the technical bids will be evaluated. After evaluation of the technical bids, the financial bids of those tenderers who are qualified in the technical evaluation will be opened.

The Forest Department will not be responsible for any inconveniences or loss to the Bidder while uploading/ downloading the bid.




Divisional Forest Officer, Nemmara
(For and on behalf of the Governor of Kerala)

Part I Specification of Solar Power Fencing

The scope of work includes Supply, installation, testing, commissioning of solar power fencing systems.

The basic parameters for fencing will be as following:

1. Maximum distance between two sections posts 150 Mtr.
2. Distance between two intermediate posts- 6 Meters
3. Nos. of lines of wire (as per BOQ)
4. Height of the fence 7 Feet

Table No 1

Sl. No.	Name of location	Range, Division	Tentative length
1	Maintenance of 5 Line SPF from Olakara to Pothuchadi (3.2 Km) under Vadakkanchery Section of Alathur Range during 2025-26	Alathur Range	3.2 Km (Approx.)

The scope of work shall also include the following:

A. Supply, installation, testing and commissioning

1. Collection of all relevant data at the proposed site which is necessary for proper designing, layout, installation and successful commissioning of the system.
2. Preparation & submission of realistic and pragmatic engineering designing of all the necessary device/components and sub-systems that is required for systems. This shall have to be carried out in accordance with the collected field data and general technical requirements/specifications.
3. The design details should clearly indicate the number of wire/lines, distance between wires/lines, number of sections, number of posts, number of corners, number pull through posts, and other accessories and justification of the effectiveness of the fencing against each animal to be controlled.
4. Supply and transportation of all required materials, components, devices, sub-systems and components of Hanging Solar fences to the site and arrangements of safe- keeping and storing them at site.
5. All the civil works related with installation, commissioning of systems.
6. Arrangement of all the material, labour, tools and plants etc. required for proper completion and successful implementation of projects

7. To provide all essential documents and manuals, clearly explaining the operation and maintenance and trouble shooting of various portions of the systems.
8. To impart necessary training to the technicians/users in each village during installation and commissioning of the systems as well as classroom training after completion of the projects in fault diagnosis and repair.

Part II Guaranteed technical specifications of the components to be used for the work.

Table No 2

Description	Specification	Remarks	Yes/No
	Base Units		
Energizer	<p>Should be Battery Operated. Switch to high, medium and low power settings. Solar panel option to recharge 12-Volt battery. Full and reduced power output terminal.</p> <p>Should operate at one / different fences independently.</p> <p>Should be capable to energize the length of fence up to 3 Km. Should be suitable for other requirements of the work.</p> <p>Operating voltage at 50 K load- 10 Kv Maximum.</p> <p>Other parameters with 1 K Load</p> <p>Operating voltage - 6.0 -8.0 Kv. - At High setting</p> <p>O/p energy - 3.5 J minimum. - At High setting</p> <p>Peak current - 7.0 - 8.0 Amps. - At High setting</p> <p>RMS Current - 2.4-2.8 Amps. - At High setting</p> <p>Output Charge - 1.0-1.4 milli-Col. - At High setting</p> <p>Fib. Energy - 3.5 -4.5 MCA - At High setting</p> <p>Pulse duration - 0.01- 3 mill-sec.</p> <p>Pulse interval - 1.1- 1.4 sec.</p>	<ol style="list-style-type: none"> 1. Must confirm to all National and International Standards of safety and should not be fatal to human and animal life. 2. Registration of the firm in any Govt. Depts. (Like Directorate General of Supplies and Disposals etc.) will be preferred 	
Solar PV Modules	250 Watts, 24 Volts rating with minimum 10 years warrantee against manufacturing defects.	Must be of CEL /BHEL / REIL / TATA BP Make	
Module stand with post	GI angle, strips and pole 50 NB. Hot dip galvanized to minimum of 30 microns zinc coating thickness. Tilted to 15 degrees. To be grouted properly	To suit PV module	
Battery	12 Volts, 100 Ah low maintenance battery with 3 year guarantee	Must be of Exide/ Kirlosker/Union make	
Lightening diverter kit	Must be capable of diverting stray lightening. The diverter assembly must be adjustable for spark gaps. Adequate earthling to be provided.	With proper earthling system	

Housing box with post	Made of 16 gauges GI sheet, painted and fixed on 100NB, class B pipe, and must be grouted	Should be capable of housing battery and energizer.	
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Accessories

			Yes / No
Earthing system	Must contain earth mixture capable of retaining moisture. 8-mm. Diameter stainless steel rod, non-rusting quality of at least 4 feet length	Should be capable of providing proper earthing to the system.	
Strain Insulators	Strain insulator must be of Polycarbonate material and should withstand 15 KV voltages	UV stabilized & Rainwater run-off should be provided on the insulator	(Please specify if better technical specification is quoted)
PP Reel Insulators	Must be of virgin plastic material. Polypropylene or equivalent	UV stabilized. High tensile	
High Tensile wire	2.5 mm. wire dia High tensile wire with minimum of 230-300 gms./sq.m zinc coated thickness. UTS 140.5kg/mm ² ,	To be guaranteed for more than 10 years	
	Break strength of 740 kgs. Zn purity above 99%.		
14 gage wire	14 wires for binding gauges insulators	High quality zinc coating	
Wire tighteners	In suit tighteners for proper tensioning of wires should be made from Al-alloy non-rusting quality		
Tension springs	Spring steel capable of taking compression loads. Galvanized.		
Joint clamps	Positive locking mechanism. Zinc coating of more than 25 microns.		
Warning sign boards	Polyethylene plastic with statutory colour and signs	Yellow with black letter in local language	
Lead out cable	Must be double insulated withstanding 15 KV voltages. Inner core wire must be hot dip galvanized	For under gate and base unit connection	
Rope gate kit	Steel rope with handle and spring assembly. Handle made of polyethylene	Length of rope to suit gate width	
Tool kit	Should contain: Wire tightener handle, Twisting tool, Pliers, Double ended spanner for clamp tightening		

Drop chain	12.5 mm loop size (of 12 gauge G.I.Wire	For rivers and streams	
Flood gate controller	Should be capable of automatically cut off the current in the drop chains, in case of floods	To be used in conjunction with in drop chains	
Cut out switch	Should be temper proof & capable of withstanding high voltage from energizer	Provision for switching off the power, of a section of the fence by using a removable key should be made.	
Elephant toupees	2.5 mm dia galvanized iron wire and G.I.Clamps should be used	For protection of posts from elephants	

Posts:

Section/Corner/End/ Pull through posts	50NB Class 'B' pipe-8.5 feet long Hot dip galvanized to more than 60 microns. Stay support 25-mm. diameters with brackets also hot dip galvanized. Must include fasteners. Posts must be grouted 1.5 feet in 2X2X2 feet size P.C.C. in 1:2:4 cement sand& stone ballast		Yes / No
Intermediate posts	more than 60 microns galvanized T' section post 8.5 feet long 25X25X3 mm., to be inserted 1.5 feet in ground		(Please specify if better technical specification is quoted)

Testers

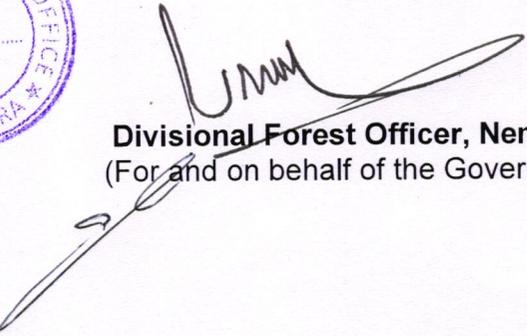
Digital volt meter	Must display fence voltage digitally up to 12 kv only. Made of non-shocking plastic		Yes / No
Xenon flash tube	Capable of flashing with each pulse to monitor the fence. Must be visible from a distance of 1000 m		(Please specify if better technical specification is quoted)
Neon tester	Neon light measuring the fence for excellent, very good, good and poor marking		

Pre-qualification conditions:

- 1. The tendering firm shall have sufficient experience (Preferably 3 years and more) in successful execution of works related to solar power fencing, for which necessary documentary proof should be provided.**
- 2. The tenderer should preferably have valid ISO 9001 Certification.**
- 3. The tenderer should preferably have valid CPRI Certification.**
- 4. The tendering firm should have adequate service facilities including technical support personnel to ensure prompt post-installation services. They shall undertake to attend to complaints regarding the functioning within a reasonable time frame (Preferably 2 days).**
- 5. The tenderer should provide documentary evidence to prove his eligibility based on all the above pre-qualification criteria in the respective online covers.**
- 6. The payment of work should be make after the receipt of technical examination report from the ANERT/Electrical Inspectorate/Other Institution authorities.**



Place :Nemmara
Date: 09.03.2026


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(For and on behalf of the Governor of Kerala)

