



GOVERNMENT OF KERALA
KERALA FOREST DEPARTMENT

KFDDO/49033/2024-DFONMR/D

Date: 07.12.2024

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 Hanging Solar Power Fencing**” for use in Kerala Forest Department by Divisional Forest officer Nemmara. The Hanging Solar Power 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	Tender File No.	Item	Length in KM (Aprx.)	Estimate Amount (Rs. in lakhs)	EMD (2.5%)	Tender Fee (Rs)
1	KFDDO/585 45/2024-DFONMR /D	Installation of Hanging Solar Power Fencing in 2.1 Km from Kalchady to Ovuppara under Thiruvazhiyad Section of Nelliampathy Range in Nemmara Division during 2024-25	2.1 Km	16.93	42,400/-	2500/-+ GST@18%
2	KFDDO/585 48/2024-DFONMR /D	Installation of Hanging Solar Power Fencing in 4 Km from Koduvalppara to Elanthikkulambu under Pothundy Section of Nelliampathy Range in Nemmara Division during 2024-25	4 Km	29.63	50,000/-	2500/-+ GST@18%
3	KFDDO/585 60/2024-DFONMR /D	Installation of Hanging Solar Power Fencing in 3 Km from Mayandikunnu to Poothamkuzhi under Mangalamdam Forest Station of Alathur Range in Nemmara Division during 2024-25	3 Km	22.56	50,000/-	2500/-+ GST@18%

4	KFDDO/585 62/2024- DFONMR /D	Installation of Hanging Solar Power Fencing in 1 Km from Nerchappara to Mayandikunnu under Mangalamdam Forest Station of Alathur Range in Nemmara Division during 2024-25	1 Km	7.78	19,500/-	1600/-+ GST@18%
5	KFDDO/585 55/2024- DFONMR /D	Installation of Hanging Solar Power Fencing in 3.25 Km from Pothundy to Thalippadam under Thiruvazhiyad Section of Nelliampathy Range in Nemmara Division during 2024-25	3.25 Km	25.39	50,000/-	2500/-+ GST@18%
6	KFDDO/585 54/2024- DFONMR /D	Installation of Hanging Solar Power Fencing in 2.8 Km from Puthenchalla to Chelikkayam under Thiruvazhiyad Section of Nelliampathy Range in Nemmara Division during 2024-25	2.80 Km	21.05	50,000/-	2500/-+ GST@18%
7	KFDDO/585 64/2024- DFONMR /D	Installation of Hanging Solar Power Fencing in 2 Km at Thalikkakallu Colony Reach I under Mangalamdam Forest Station of Alathur Range in Nemmara Division during 2024-25	2 Km	15.34	38,400/-	2500/-+ GST@18%
8	KFDDO/585 65/2024- DFONMR /D	Installation of Hanging Solar Power Fencing in 2.5 Km at Thalikkakallu Colony Reach II under Mangalamdam Forest Station of Alathur Range in Nemmara Division during 2024-25	2.5 Km	19.41	48,600/-	2500/-+ GST@18%
9	KFDDO/585 43/2024- DFONMR /D	Installation of Hanging Solar Power Fencing in 3.6 Km from Thalippadam to Koppenkkulmabu under Thiruvazhiyad Section of Nelliampathy Range in Nemmara Division during 2024-25	3.6 Km	27.21	50,000/-	2500/-+ GST@18%
10	KFDDO/585 59/2024- DFONMR /D	Installation of Hanging Solar Power Fencing in 2 Km at lower part of Vellattiri under Mangalamdam Forest Station of Alathur Range in Nemmara Division during 2024-25	2 Km	15.34	38,400/-	2500/-+ GST@18%

The other details regarding this tender are as follows:

(i)	Period for completion	90,120 & 180 Days
(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	09.12.2024, 5 PM
(v)	Last date for receipt of tender (Closing of tender)	16.12.2024, 5 PM
(vi)	Tender Opening Date	18.12.2024, 11 AM

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.

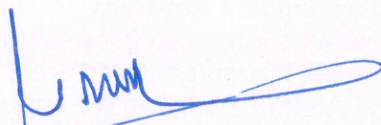
Tenderers are requested to go through the tender conditions before quoting the tender. Online tenders/bids are to be accompanied with a preliminary agreement executed. Tenders/bids received online without the scanned copies of relevant documents, preliminary agreement, will not be considered and shall 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.

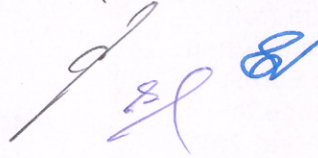
First the technical bids will be evaluated. After evaluation of the technical bids, the financial bids of those tenderers who are qualified in the technical evaluation will be opened.

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

Place :Nemmara
Date: 07.12.2024




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



Annexure A

Part I Specification of Hanging Solar Power Fencing

The scope of work includes Supply, installation, testing, commissioning of Hanging Solar Power Fencing systems.

The basic parameters for fencing will be as following:

1. Maximum distance between two T-shaped square posts 20 Mtr.
2. Height of the T-shaped square posts 14 feet above ground level
3. Nos. of lines of steel wire (Horizontal- 4 Lines)
4. Nos. of lines of GI rope wire (Vertical-2 Lines between 1 mtr distance)
5. Height of the fence 4.6 Mtr above ground level

Table No 1

Sl. No.	Name of location	Range	Tentative length (Approx.)
1	Installation of Hanging Solar Power Fencing in 2.1 Km from Kalchady to Ovuppara under Thiruvazhiyad Section of Nelliampathy Range in Nemmara Division during 2024-25	Nelliampathy Range	2.1 Km
2	Installation of Hanging Solar Power Fencing in 4 Km from Koduvalppara to Elanthikkulambu under Pothundy Section of Nelliampathy Range in Nemmara Division during 2024-25	Nelliampathy Range	4 Km
3	Installation of Hanging Solar Power Fencing in 3 Km from Mayandikunnu to Poothamkuzhi under Mangalamdam Forest Station of Alathur Range in Nemmara Division during 2024-25	Alathur Range	3 Km
4	Installation of Hanging Solar Power Fencing in 1 Km from Nerchappara to Mayandikunnu under Mangalamdam Forest Station of Alathur Range in Nemmara Division during 2024-25	Alathur Range	1 Km
5	Installation of Hanging Solar Power Fencing in 3.25 Km from Pothundy to Thalippadam under Thiruvazhiyad Section of Nelliampathy Range in Nemmara Division during 2024-25	Nelliampathy Range	3.25 Km

6	Installation of Hanging Solar Power Fencing in 2.8 Km from Puthenchalla to Chelikkayam under Thiruvazhiyad Section of Nelliampathy Range in Nemmara Division during 2024-25	Nelliampathy Range	2.80 Km
7	Installation of Hanging Solar Power Fencing in 2 Km at Thalikaiyallu Colony Reach I under Mangalamdam Forest Station of Alathur Range in Nemmara Division during 2024-25	Alathur Range	2 Km
8	Installation of Hanging Solar Power Fencing in 2.5 Km at Thalikaiyallu Colony Reach II under Mangalamdam Forest Station of Alathur Range in Nemmara Division during 2024-25	Alathur Range	2.5 Km
9	Installation of Hanging Solar Power Fencing in 3.6 Km from Thalippadam to Koppenkkulmabu under Thiruvazhiyad Section of Nelliampathy Range in Nemmara Division during 2024-25	Nelliampathy Range	3.6 Km
10	Installation of Hanging Solar Power Fencing in 2 Km at lower part of Vellattiri under Mangalamdam Forest Station of Alathur Range in Nemmara Division during 2024-25	Alathur Range	2 Km

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 troubleshooting 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.

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

Table No 2

Description	Specification	Remarks
	Base Units	
Energizer	ENERGIZER FOR HANGING FENCE With the following specifications 12V ENERGIZER, 9.9 KV output AC, input 12 V DC, minimum 4 Jule must be from a reputed company, must confirm to CPRI certificate and all National and International standards of safety.Switch to high, medium and low power settings. Should possess the following output characters - Peak o/p voltage not more than 9.90 KV O/p energy 4 to 4.5 J minimum - Pulse duration 1.01-3.0 m. sec - Pulse interval 1.1-1.4 sec -	<ol style="list-style-type: none"> 1. Must confirm to all National and International Standards of safety and should not be fetal 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	SOLAR MODULE FOR HANGING FENCE Monocrystalline or polycrystalline with silicon cells with the following Specification 200 watts,12 volts rating with minimum 10 to 25 years warranty against manufacturing defects. Solar charge controller to regulate the charging of the battery maximum charging cut off 14.2 volts and minimum 10A	Must be of CEL /BHEL / REIL / TATA BP Make
Module stand with Box	Module Stand with Water Proof Box With MS thickness tilted to 13-15 degrees	To suit PV module
Battery	BATTERY Must have 12 Volts, 150 AH, Maintenance free (Exide or Amaron or Equivalent Make) battery with at least 5 years replacement warranty	Must be of Exide/ Amaron/Union make
AC Charger	A C CHARGER Charging current minimum 8A, High charging volt cut off 14.20 V from reputed companies with minimum 1 year warranty	With proper specification

Lightening diverter kit	Must be capable of diverting stray lightening. The diverter assembly must be adjustable for spark gaps. Adequate earthing to be provided.	With proper earthing system
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C. Accessories

Earthing system	Must contain earth mixture capable of retaining moisture and 8 mm dia stainless steel rod non rusting quality of 4 feet long	Should be capable of providing proper earthing to the system.
Super Strain Insulator	Super Strain insulator must be of polypropylene material and should withstand of 16 KV	UV stabilized & Rainwater run-off should be provided on the insulator
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
Stainless Steel Soft Wire	STAINLESS STEEL SOFT WIRE must be 1.5 mm 304 grade, non rusting quality for main line	With proper specification
Stainless Steel Wire	STAINLESS STEEL SOFT WIRE must be 1.2 mm 304 grade, non rusting quality for main line	With proper specification
SS Wire Rope	SS WIRE ROPE 1.5mm and non rusting quality for hanging line	With proper specification
Bullets (Connectors)	BULLETS (Connectors) of copper material coated with stainless steel having an inner core hole size of 2.5 mm diameter, 2 cm length.	With proper specification
Tool kit	Should contain: Wire tightener handle, Twisting tool, Pliers, Double ended spanner for clamp tightening	With proper specification
GSM Alert System	PROVIDING G.S.M ALERT SYSTEM - With Fence Voltage Alarm And SMS Alert To Minimum 3 Mobile Numbers. Two Additional Relay Contacts To Turn On a Flood Light/ CCTV/ Walkie Talkie. Alarm Can Be Switched On Or Off By A Missed Call	With proper specification

Posts:

T Shaped Square Tube	7 Feet length, 14 gauge, class B pipe of 2 inches inner diameter, non rusting quality with ISI standards. (above the ground 14 feet and top pipe 3 feet)	With proper specification
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.Testers

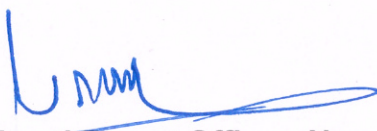
Digital Volt Meter	Must display fence voltage digitally up to 12 kv only. Made of non-shocking plastic	With proper specification
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Pre-qualification conditions:

- 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 authorities.**

Place :Nemmara
Date: 07.12.2024




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