

**ENERGY MANAGEMENT CENTRE -KERALA**

Department of Power, Government of Kerala

Sreekrishna Nagar, Sreekaryam,

Thiruvananthapuram, Kerala – 695 017;

www.keralaenergy.gov.in

Guidelines for the empanelment of vendors of cool roof technologies

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1. INTRODUCTION

Energy Management Centre - Kerala, Department of Power, Government of Kerala is the State Designated Agency (SDA) of Bureau of Energy Efficiency (BEE), Ministry of Power, Government of India to coordinate, enforce and implement Energy Conservation Act-2001 (Central Act 52 of 2002) in Kerala.

In the context of increasing atmospheric temperatures in Kerala, there is an anticipation of a substantial rise in the use of air conditioners. Consequently, this surge in demand is expected to lead to a significant upswing in electricity consumption within the state. To address this situation, the Energy Management Centre has put forward a scheme named 'Kulirma' to harness the potential of cool roofing technologies as a means to mitigate the heat in buildings.

In order to streamline the process, EMC has been decided to empanel vendors who provides cool roof technologies in Kerala. This Empanelment creates a list of pre-approved vendors, making it easier and faster for the EMC and other government bodies to procure cool roof paints for their initiatives. This simplifies the procurement process and reduces administrative burdens. By empanelling vendors, the EMC indirectly supports the growth and development of the cool roofing market in Kerala. This creates a level playing field for qualified vendors and encourages innovation in cool roof technology. It also assures individuals and organizations that they are choosing reliable and qualified suppliers for their cool roofing needs.

In Kerala, where energy management is becoming increasingly important due to rising energy demands and environmental concerns, adopting cool roofing technologies can be a strategic and effective way to promote energy efficiency and sustainability in the built environment. Overall, the empanelment process helps ensure the quality and effectiveness of cool roof implementation while promoting the wider adoption of this technology in Kerala.

2. ABOUT EMC

Energy Management Centre – Kerala (EMC) was established by Kerala Government, aiming primarily to remould and instrumentalise energy sector as a catalyst in promoting a development process which is ecologically sustainable. With a view to making energy sector achieve such a lead and catalytic role, EMC has evolved a novel and comprehensive energy management approach and institutional philosophy encompassing management of energy technology systems – both conventional and non-conventional, energy conservation in all sectors of the economy, energy resource management, rural and urban energy systems, energy education and training, energy generation and conservation-based employment and poverty alleviation programmes.

EMC is also the State Designated Agency (SDA) of Bureau of Energy Efficiency (BEE), Ministry of Power, Government of India to coordinate, enforce and implement Energy Conservation Act-2001 (Central Act 52 of 2002) in Kerala. EMC is working towards attaining energy efficiency in all sectors of economy.

3. ABOUT 'KULIRMA' PROJECT

In the context of increasing atmospheric temperatures in Kerala, there is an anticipation of a substantial rise in the use of air conditioners. Consequently, this surge in demand is expected to lead

to a significant upswing in electricity consumption within the state. To address this situation, the Energy Management Centre has put forward a scheme named 'Kulirma' to harness the potential of cool roof technology as a means to mitigate the heat in buildings. The core objective of this initiative is to transform the roofs of approximately 500 million square meters of buildings across Kerala into cool roofs. This goal will be achieved by promoting cool roof techniques that possess the ability to reflect sunlight and limit heat absorption. As a direct consequence, indoor temperatures can be significantly lowered, thereby decreasing the necessity for fans and air conditioners. Under the 'Kulirma' project, the Energy Management Centre has outlined a multifaceted approach. This includes enhancing public awareness about the benefits of cool roofs, extending financial and technical support for implementing cool roofing in public buildings, and offering guidance to individuals interested in adopting cool roofing techniques.

Implementation of 'Kulirma' scheme will lead to a reduction in the reliance on fans and air conditioners, rendering a cost-effective and comfortable indoor environment for millions of economically disadvantaged individuals. Moreover, the promotion of cool roofs is poised to generate new employment opportunities for individuals in both rural and urban areas who are engaged in this sector. The anticipated results of 'Kulirma' project are:

Reduced Heat Absorption: Cool roofing materials, typically designed to reflect sunlight and absorb less heat, can help in reducing the amount of heat absorbed by buildings. In Kerala's hot and humid climate, this can significantly lower indoor temperatures, reducing the need for air conditioning and thus saving energy.

Lower Energy Consumption: By reducing the reliance on air conditioning, cool roofing helps in lowering energy consumption, which is crucial for effective energy management. This reduction in energy usage not only benefits individual building owners but also contributes to overall energy conservation efforts in the region.

Mitigation of Urban Heat Island Effect: Kerala, like many urban areas, faces the urban heat island effect, where urbanized regions become significantly warmer than surrounding rural areas due to human activities and structures absorbing and retaining heat. Cool roofing can mitigate this effect by reflecting more sunlight and reducing the heat absorbed by buildings, thereby helping to cool urban areas and improving overall comfort levels.

Extended Roof Lifespan: Cool roofing materials often have properties that help protect roofs from UV radiation and other weather-related damage. By keeping roofs cooler, they can extend the lifespan of roofs, reducing the frequency of roof replacements or repairs. This not only saves money but also reduces the environmental impact associated with roof maintenance.

Environmental Benefits: Cool roofing contributes to environmental sustainability by reducing greenhouse gas emissions associated with energy production for air conditioning. Additionally, by lowering indoor temperatures, it can decrease the demand for electricity during peak hours, thereby reducing strain on the power grid and potentially lowering the reliance on fossil fuel-based power plants.

In Kerala, where energy conservation and sustainability are becoming increasingly important due to rising energy demands and environmental concerns, adopting cool roofing technologies can be a strategic and effective way to promote energy efficiency and sustainability in the built environment.

4. OBJECTIVE OF THE EMPANELMENT

Energy Management Centre - Kerala invites details/information from qualified, experienced vendors for getting empanelled in the panel of prequalified Vendors with EMC for the implementation of cool roof technologies inside the State. The objectives of the empanelment are :

- a) **Standardization and Quality Assurance:** It ensures a certain level of quality and performance from the cool roof technologies that are selected by EMC. This likely involves evaluating products based on factors like Solar Reflective Index, Environmental impact etc.
- b) **Streamlined Procurement:** Empanelment creates a list of pre-approved vendors, making it easier and faster for the EMC and other government bodies to procure cool roof paints/tiles for their initiatives. This simplifies the procurement process and reduces administrative burdens.
- c) **Promoting Trust and Transparency:** Publicly available information on empanelled vendors fosters trust and transparency in the cool roofing sector. It assures individuals and organizations that they are choosing reliable and qualified suppliers for their cool roofing needs.
- d) **Supporting the Cool Roofing Market:** By empanelling vendors, the EMC indirectly supports the growth and development of the cool roofing market in Kerala. This creates a level playing field for qualified vendors and encourages innovation in cool roof technology.

Overall, the empanelment process helps ensure the quality and effectiveness of cool roof implementation while promoting the wider adoption of this technology in Kerala.

5. PERIOD OF EMPANELMENT:

The period of empanelment is envisaged up to Three Years from the initial date of empanelment. The EMC shall approve the cool roof technologies proposed by the vendors and have the right to modify or to suspend the empanelment, if there is any violation with the terms of conditions of the agreement. After the expiry of normal validity period, all the vendors are required to re-register submitting all the necessary documents. Vendors should apply for Re- Empanelment at least 3 months prior to expiry of validity of existing empanelment.

6. GENERAL GUIDELINES

- (a) This Vendor Empanelment is designed to gather data on various aspects. Vendors are kindly requested to carefully review the guidelines and complete all required information along with relevant supporting documents/evidence.
- (b) Vendors must submit their request using the prescribed form attached as Annexure-I "Application for Vendor Empanelment" to The Director, EMC-Kerala. A scanned copy of the same should also be sent to emck@keralaenergy.gov.in with a copy to eenvendors@keralaenergy.gov.in from the official email ID.
- (c) Vendors should be aware that incomplete applications may be rejected. EMC may request additional information in case of minor omissions of data/documents. Vendors will be listed as empanelled vendors with EMC only if they meet specified requirements, which include dealing

with cool roof technologies. Specifically, vendors should either own/operate a cool roof technology firm or be an authorized dealer of cool roof technology providers.

(d) EMC reserves the right to accept or reject empanelment applications without providing reasons. Any disputes arising from or related to this empanelment shall be deemed to have arisen in Thiruvananthapuram, and only courts in Thiruvananthapuram shall have jurisdiction to resolve them.

7. SPECIFIC REQUIREMENTS FOR COOL ROOF TECHNIQUES

This empanelment is for vendors of cool roof technologies including paints and tiles with high Solar Reflectance Index (SRI) value. The Solar Reflectance Index (SRI) is a measure of a surface's ability to reflect solar heat.

(a) Solar Reflectance Index (SRI): The vendors shall supply paint / tile with minimum SRI value of 82.

Note:

The applicant shall submit a copy of the SRI test certificate from reputed testing laboratory.

(b) Green Certifications: Products with green certification will be given preference.

Vendor Empanelment Fee: Interested vendor is required to download the documents from EMC's website: www.keralaenergy.gov.in. The "Application for Vendor Empanelment" shall be submitted in the prescribed format and will be considered for Empanelment of vendor only if it is accompanied with a proof for online transaction of required non refundable application fee of Rs. 10000/- plus 18% GST as applicable.

Name of the Bank	:	Bank of Baroda
Branch	:	Ulloor Branch
Account Name	:	Energy Management Centre
Bank Account Number	:	32860100005883
IFSC Code	:	BARB0ULLOOR
MICR	:	695012007

The vendor can add one product along with the vendor empanelment fee payment of Rs. 10000/- plus 18% GST. For each additional product, they shall remit the fee of Rs. 2500/- plus 18% GST.

8. VENDOR EMPANELMENT PROCESS

Based on the information provided by the Vendor in various Sections of "Application for Vendor Empanelment", The empanelment process will consist of capturing the vendors credential comprising:

i. Vendor details

- ii. Cool roof techniques provided by the vendors
- iii. The details of authorized dealers of vendors
- iv. The details of painting /tile paving contractors empanelled by the vendor

If required, EMC will also carry out verification of the credentials and assessment of capacity and capability of the vendor. Based on the Vendor Empanelment Process, EMC reserves the right to assign class of the category applied for implementing the cool roof technique. It may be noted that getting registered under the Vendor Empanelment process shall not be construed to mean that the vendor is deemed meeting Qualification Requirements for the various tenders of EMC.

9. CLARIFICATION

Any clarification with respect to Vendor Empanelment may be obtained from:

The Director,
Energy Management Centre - Kerala,
Sreekrishna Nagar, Sreekariyam P O Thiruvananthapuram -695017
Phone: 0471-2594922, 2594924
Email: eevendors@keralaenergy.gov.in

For further information the mobile no: 9744856275 may be utilized

Annexure I

Application form for vendor empanelment**PART A: Details of Applicant**

1. Name of the firm: _____ :
2. Category _____ Mark ' ' _____
(Attach registration certificate of the firm) a) Individual/ proprietorship
b) Partnership
c) Private Limited
3. Address _____
4. Telephone/s (with STD code) _____ Pin: _____
5. Fax No. & email ID _____ :
6. URL (website /blog) _____ :
7. Name, Address and contact details of CEO _____ :

Email: _____
Mobile No: _____

Part B: Cool roof technologies

1. Table I : Details of Cool roof technologies provided

Sl. No.	Name of the product	Paint / Tile	SRI value	SRI test certificate attached (Yes/No)	Green certification Attached (Yes/No)

2. Additional information if any _____ : (Attach Separately)

Part C: Details of authorized dealers

SI. No	Authorised Dealer Name	Cool roof technique	District	Contact NO.	Email-ID
1					
2					
3					

(** Vendor can add any number authorized dealers by adding additional rows)

Part D: Details of painting /tile paving contractors empanelled by the vendor

SI.No.	Name of painting /tile paving contractors	Cool roof technique	District	Contact NO.	Email-ID
1					
2					
3					

(** Vendor can add any number painting /tile paving contractors empanelled by the vendor by adding additional rows)

Declaration

- The information provided in this form is accurate and true to the best of my knowledge.
- We agree to abide by the terms & conditions of empanelment. The number of products to be empanelled is _____ and the empanelment fee is _____
- Please find enclosed DD / UTR (Online transaction) of Rs. _____ drawn in favour of Director Energy Management Centre payable at Thiruvananthapuram for Empanelment Fee. (Bank: _____ Date: _____)

EMC Account Details: Account No: 32860100005883; IFSC: BARB0ULLOOR; Bank of Baroda, Ulloor Branch, Thiruvananthapuram

Name & Designation of the authorized signatory :
Signature :

(Office Seal)

Date :

(for office use only)

Date of Receipt :
Date of Completion of Evaluation :
Approved or not approved :
Empanelment No. allotted :