



Workshop on Demystifying Carbon Credits Held on World Environment Day

On the occasion of World Environment Day, 5th June 2025, the Energy Management Centre (EMC) hosted a workshop titled "Demystifying Carbon Credits: Opportunities for Stakeholders". The event was inaugurated by Hon'ble Minister for Electricity, K. Krishnankutty, and featured a keynote address by Puneet Kumar IAS, Additional Chief Secretary, Power Department. The presidential address was delivered by Kadakampally Surendran, MLA of Kazhakkootam, Dr. R. Harikumar, Director of EMC, gave the welcome address, while Dinesh Kumar A.N., Joint Director, EMC, delivered the vote of thanks. A felicitation was also offered by Narendra Nath Veluri IFS, CEO of ANERT.

As part of the inauguration, an e-book on energy conservation was launched to promote awareness and knowledge sharing on sustainable practices. The event also marked the signing of a Memorandum of Understanding (MoU) between HLL Lifecare Ltd. and EMC to advance collaborative efforts in energy efficiency

and sustainability initiatives.

The workshop featured technical sessions led by EMC empanelled carbon credit consultants Kavin Kumar Kandasamy (CEO, Proclime Services Pvt. Ltd.), Dr. Alok Kumar Khore (General Manager, Infinite Solutions), and Karthik Rao (Vice President, Core CarbonX Solutions Pvt. Ltd.). These sessions offered valuable insights into the evolving carbon credit landscape, enabling stakeholders to better understand the mechanisms and explore actionable opportunities in climate action and sustainable development.

The workshop proved to be a timely and impactful initiative by EMC Kerala, equipping stakeholders with the knowledge and tools necessary to engage with carbon credit markets. By fostering collaboration and building technical capacity, the event reinforced the Centre's commitment to promoting sustainable development, energy efficiency, and climate resilience in the state.

EMC to Set Up Carbon Credit Facilitation Cell in Kerala

The Energy Management Centre – Kerala (EMC) has announced the establishment of a Carbon Credit Facilitation Cell to assist public and private institutions in the State with securing carbon credits. The initiative was announced during a workshop held on World Environment Day, 5th June 2025, aimed at demystifying carbon credits for stakeholders. The centre has empanelled six consultancy firms to guide institutions through the carbon credit process,

making it more accessible and efficient, especially for government entities. The empanelment is still open for consultancy firms working in the carbon credit sector.

The move aligns with national efforts to operationalise a carbon credit trading system, introduced through recent amendments to the Energy Conservation Act. As Kerala's nodal agency for energy conservation, EMC will play a key role in driving carbon-neutral projects and emission reductions.

Industry Forum Explores Shared Cooling Infrastructure for Sustainable Urban Development in Kerala

An industry forum focusing on Shared Cooling Infrastructure (SCI) was held on 12th June 2025 at the Energy Management Centre (EMC) in Thiruvananthapuram, aiming to explore sustainable urban development strategies in Kerala. The forum addressed the growing demand for cooling in urban areas and discussed scientific and environmentally responsible solutions. Experts highlighted that centralized chilled water distribution through insulated pipelines could reduce electricity consumption by up to 50% and significantly lower carbon emissions. Kerala's humid climate and rising cooling needs make SCI a highly relevant solution for the state.



Dr. Harikumar, EMC Director delivering introductory remarks

The forum featured model presentations of projects from various sectors. Dr. R. Harikumar, Director of EMC, delivered the welcome address. Key discussions were led by Pramod Kumar Singh, Senior Director of the Alliance for an Energy Efficient Economy (AEEE), Bhaskar Sarkar, Chief Business Officer of Adani Cooling Solutions Ltd., and Dushyant Ahuja, Country Manager of Tabreed India Pvt. Ltd., who shared insights into the feasibility, implementation strategies, case studies and benefits of SCI in the Indian context.



Shared Cooling Infrastructure (SCI)

In recent times, rising temperatures have made air conditioning not just a luxury but a necessity. The demand for air conditioners is soaring, with more homes, buildings, and facilities installing individual units. However, this trend also highlights the growing relevance of shared cooling infrastructure, also known as district cooling. Instead of each building operating its own air conditioning system, district cooling involves a centralized plant that provides cooling to multiple buildings through a network of underground pipes. This system works by producing chilled water at the central plant and circulating it to connected buildings, where heat exchangers transfer the cooling effect to each building's internal system. The warmed water is then returned to the central plant for re-cooling and reuse. This model offers several advantages over traditional individual systems. Energy efficiency is a major benefit, as centralized plants typically operate more efficiently, reducing overall energy consumption. This efficiency leads to cost savings for building owners and operators through lower energy bills. Additionally, shared cooling systems contribute to reduced environmental impact by minimizing greenhouse gas emissions.



SCI also offers several secondary benefits that make it particularly attractive for high-density, mixed-use urban developments. It reduces noise and heat emissions at the building level, improves aesthetics by eliminating the need for multiple outdoor AC units, and lowers maintenance burdens. Central monitoring and control further allow for optimized performance, real-time fault detection, and efficient load management. In a state like Kerala, where climate resilience, tourism infrastructure, and green urban planning are top priorities, SCI can play a transformative role. The technology supports goals under the Energy Conservation Building Code (ECBC), Smart Cities Mission, and India's National Cooling Action Plan (NCAP), positioning Kerala to become a leader in sustainable urban cooling.

Compliance and Reporting of Renewable Consumption Obligations

The Ministry of Power, Government of India, has issued guidelines for Compliance and Reporting of Renewable Consumption Obligations (RCO) for the financial year 2024–25. In accordance with the Energy Conservation (Amendment) Act, 2022, the Central Government has mandated minimum consumption of energy from non-fossil sources by Designated Consumers (DCs). These obligations are applicable not only to Electricity Distribution Licensees (DISCOMs) but also to Open Access (OA) Consumers and Captive Power Plants (CPPs) that qualify as Designated Consumers under the Energy Conservation Act.

As per the Gazette Notification dated 20th October 2023, the RCO framework came into effect from 1st April 2024. The minimum percentage of electricity consumption to be met from renewable sources for the year 2024–25 is set at 29.91%, which will progressively increase to 43.33% by 2029–30. These targets apply to all DCs, including those who procure power through open access and

those operating captive power plants.

Following multiple stakeholder consultations held across various cities including Delhi, Visakhapatnam, Jaipur, Guwahati, and Goa, and taking into account the genuine implementation challenges raised by industries such as internal data finalization, verification, and audit scheduling the BEE has extended the deadline for final RCO compliance submission. Now, applicable DCs are required to submit the final RCO compliance report, certified by the Plant Head and audited by a BEE-empanelled Accredited Energy Auditor (AEA), on or before 31st July 2025. There will be no requirement for an interim submission by 30th May 2025.

The submission modalities remain unchanged. Hard and soft copies of the report must be submitted to the Bureau of Energy Efficiency, New Delhi, and soft copies must also be emailed to rco.support@beeindia.gov.in. Additionally, reports must be marked to the respective State Designated Agencies (SDAs).

Kerala Steps into Carbon Market Compliance

India is accelerating its transition to a low-carbon economy with the implementation of the Carbon Credit Trading Scheme (CCTS), 2023, and the notification of Greenhouse Gas Emission Intensity (GEI) targets for energy-intensive industries. Under this market-based mechanism, industries must achieve specific emission reduction goals or compensate through the purchase of carbon credits. The scheme incentivizes eco-efficient industrial practices while imposing penalties for failure to comply with emission norms

A key highlight in this year's notification (16 April 2025) is the inclusion of two Designated Consumers from Kerala, Malabar Cements Ltd. and Travancore Cochin Chemicals Ltd.

This marks a significant milestone in Kerala's alignment with national climate goals. These DCs are now required to monitor, report, and reduce their emission intensity over defined compliance cycles, contributing to India's broader decarbonization commitments.

To support implementation of the scheme, the Bureau of Energy Efficiency (BEE) has invited applications for empanelment of Accredited Carbon Verification (ACV) Agencies. These agencies will play a crucial role in validating and verifying industry reported emissions data under CCTS. The move ensures robust governance and builds trust in the emerging Indian carbon market ecosystem.

PAT Cell Monitoring & Verification Visit to Malabar Cements Ltd, Walayar



As part of the ongoing Monitoring and Verification (M&V) process under the Perform, Achieve & Trade (PAT) Scheme, a site visit was conducted at Malabar Cements Ltd, located in Walayar, Palakkad, Kerala, on 27th and 28th May 2025. The visit was carried out in alignment with the PAT Rules and Verification Guidelines to assess the energy performance and implementation of energy conservation measures by the designated consumers. The Monitoring and Verification Audit was inspected by Ajay Krishnan K. (Certified Energy Manager), and Divine Angel J D. (Project Associate), from the PAT Cell, Energy Management Centre Kerala

The M and V Audit was coordinated by NIN Energy India Pvt. Ltd. (NEIPL), with the audit team comprising Senthil Kumar B. (Accredited Energy Auditor), Karthikeyan T. (Certified Energy Auditor), Pankaj Arora (Expert), and S. Senthamil Selvan (Team Member). Representatives from Malabar Cements Ltd., including B T Biji Kumar (HOD Electrical), Kumari Vanajam (Electrical In charge),

and Girish R. (Energy Manager), had discussion on PAT scheme and Energy Conservation Act 2001 requirements during the visit.

The site assessment focused on validating data accuracy, reviewing implemented energy efficiency projects, and verifying compliance with PAT targets. The collaborative effort between the PAT Cell, the NEIPL audit team, and Malabar Cements Ltd. played a crucial role in ensuring the integrity of the verification process.



M & V Audit at Malabar Cements Ltd on 27th-28th May 2025

PAT BULLETIN

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