INTERNATIONAL WORKSHOP ON ENERGY EFFICIENCY, CONSERVATION AND TRANSITION FOR ACHIEVING NET ZERO AND SUSTAINABLE DEVELOPMENT GOALS

9-10 SEPTEMBER 2025

Thiruvananthapuram, Kerala, India

Organised in association with Centre for Science & Technology of the Non-Aligned and Other Developing Countries (NAM S&T Centre), New Delhi,

INTRODUCTION

With the urgency to combat climate change, achieving energy efficiency, conservation, and a sustainable energy transition has become a global priority. This workshop aims to bring together international experts, policymakers, and stakeholders to discuss innovative solutions and best practices for achieving net-zero targets and the Sustainable Development Goals (SDGs).

Developing countries face distinct challenges in energy transition while ensuring economic stability. The workshop will serve as a collaborative platform for knowledge exchange, policy discussions, and technological advancements in the energy sector. It will emphasize renewable energy integration, energy conservation, and innovative financing mechanisms

WORKSHOP OBJECTIVES

- Discuss the role of energy efficiency and conservation in achieving net-zero targets
- Explore sustainable energy transition strategies for developing nations
- Examine policy frameworks and financing mechanisms for clean energy adoption
- Identify challenges and opportunities in integrating renewable energy
- Facilitate networking and collaboration among key stakeholders

TOPICS TO BE COVERED

Energy Transition and Energy Efficiency

Strategies for Developing Nations: Exploring practical pathways for shifting from fossil fuels to cleaner sources like small hydro, solar, wind, geothermal, and biomass, while minimizing energy demand. Emphasis on supportive policy frameworks, local capacity building, and accessible technology solutions tailored for resource-constrained environments.

Energy Efficiency and Conservation in Resource-Limited Contexts

Sharing low-cost, scalable best practices, case studies, and success stories relevant to developing regions. Focus on behavioural change, adoption of smart and efficient technologies, and effective demand-side management to reduce energy consumption and improve access.

Local energy access through clean energy technologies

Assessing the potential of clean energy solutions, particularly small hydropower, to meet off-grid and rural energy demands through micro-grids, hybrid systems, and smart grid technologies. The discussion will address technical challenges, accessible financing options, and effective approaches to community engagement and empowerment.

Energy Storage Projects for Grid Stability

Examining the application of Battery Energy Storage Systems (BESS) for managing renewable intermittency and Pumped Storage Projects (PSP) for large-scale, long-duration needs in developing grids. Topics include integration strategies, cost-effective deployment, design considerations, and lessons from case studies in similar socio-economic contexts.

Green Hydrogen Projects for Cleaner Power and Storage

Exploring the potential of green hydrogen as a clean energy carrier for power generation, storage, and industrial applications. Focus on technology readiness, integration with renewables, opportunities for export, and the role of policy support and carbon markets in scaling green hydrogen adoption in developing countries

Carbon Markets and their Role in Sustainable Development

Discussing the potential of carbon markets to drive sustainable energy projects in developing countries. Focus on carbon credit mechanisms, access to global carbon markets, and how these markets can incentivize renewable energy, energy efficiency, and grid stabilization projects through monetization of emissions reductions.

EXPECTED OUTCOMES

- Improved understanding of energy efficiency and conservation techniques.
- Policy recommendations for achieving net-zero emissions.
- Strengthened international collaborations for sustainable energy projects.
- dentification of funding opportunities for clean energy initiatives.
- Capacity building and knowledge-sharing among stakeholders.

ABOUT THE ORGANIZERS

• Energy Management Centre (EMC), Kerala, India

The Energy Management Centre (EMC), Kerala, is a leading institution promoting energy efficiency, renewable energy adoption, and sustainable energy practices in India. Established under the Department of Power, Government of Kerala, EMC is dedicated to implementing both state and national policies aimed at enhancing energy conservation efforts. The Centre is actively involved in research, policy advocacy, and capacity-building programs that support India's energy transition goals. Energy Management Centre – Kerala serves as the State Designated Agency of the Bureau of Energy Efficiency, Ministry of Power, Government of India, responsible for coordinating, regulating, and enforcing the provisions of the Energy Conservation Act, 2001 (Central Act 52 of 2001) in the State of Kerala. EMC also hosts a small hydro power cell for promoting small hydro power and pump storage projects in the State.

• Centre for Science & Technology of the Non-Aligned and Other Developing Countries (NAM S&T Centre), New Delhi, India

The NAM S&T Centre is an intergovernmental organization that fosters cooperation in science and technology among non-aligned and other developing countries. It organizes workshops, research programs, and collaborative projects in various scientific domains, including energy, environmental sustainability, and technological innovation. By facilitating expert exchanges and technical capacity building, the NAM S&T Centre plays a crucial role in advancing sustainable development initiatives worldwide.

TARGET PARTICIPANTS

Researchers, scientists, policymakers, government officials, industry leaders, NGOs, and other stakeholders engaged in energy efficiency, conservation, and transition strategies.

PROGRAMME

Date	Session Details
9th September 2025	Inaugural Session, Keynote Lectures, Technical Sessions
10th September 2025	Panel Discussions, Technical Sessions, Concluding Session

VENUE

Energy Management Centre Kerala

(IGBC gold rated green building Campus), Sreekrishna Nagar, Sreekariyam P.O, Thiruvananthapuram, Kerala, India

RESOURCE PERSONS

Eminent experts and professionals from India and abroad will be invited as resource persons to share their knowledge and insights on various aspects of energy efficiency and sustainability.

INTERNATIONAL PARTICIPATION

The workshop will host foreign delegates from 22 NAM countries, primarily from the developing world. These delegates, representing government, research, and industry sectors, will be actively exploring knowledge, expertise, and technologies that they can adapt and implement in their own national contexts. This presents a significant opportunity for participating organizations to showcase their capabilities, innovations,

REGISTRATION FEE

Indian participants are required to pay a registration fee of ₹25,000 plus 18% GST (Total ₹29,500). The last date for registration is August 30, 2025. The fee includes access to all sessions, workshop kit, meals. The participants will be provided certificates signed jointly by Energy Management centre and NAM S&T Centre

THE FEE MAY BE REMITTED TO THE FOLLOWING ACCOUNT

A/c Name: Energy Management Centre
Bank: Bank of Baroda,
Branch: Ulloor Branch
A/c. No. 32860100005883
IFSC Code. BARB0ULLOOR

SCAN ME

Registration link
https://forms.gle/1sfBGooahT9B85M78

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