Alliance for an™ Energy Efficient Economy

ANNUAL REPORT

2025-26

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List of Abbreviations

AAI	Airports Authority of India
AC	Air Conditioner
ADB	Asian Development Bank
ADEETIE	Assistance in Deploying Energy Efficient Technologies in Industries and Establishments Scheme of BEE
AEEE or the Alliance	Alliance for an Energy Efficient Economy
AI	Artificial Intelligence
AIDA	All India DISCOMs Association
ASSET	Accelerating Sustainable Solutions for Energy Transition
AVPN	Asian Venture Philanthropy Network
BEE	Bureau of Energy Efficiency
BIS	Bureau of Indian Standards
BMUKN	German Federal Ministry for the Environment, Climate Action, Nature Conservation and Nuclear Safety
CAPEX	Capital Expenditure
CBAM	Carbon Border Adjustment Mechanism
CEA	Central Electricity Authority
CEEW	Council on Energy, Environment and Water
CEPT	Centre for Environmental Planning and Technology
CHAI	Clinton Health Access Initiative
CO2	Carbon Dioxide
CoA	Council of Architecture
COP	Conference of Parties
CPCA	Council of Philanthropies for Climate Action
CRDF	CEPT Research and Development Foundation
CREDAI	Confederation of Real Estate Developers' Associations of India
CSTEP	Center for Study of Science, Technology and Policy
DBC	Decarbonisation Business Charter
DCS	District Cooling System
DF	Demand Flexibility
DISCOMs	Distribution Companies
DPR	Detailed Project Report
DSM	Demand Side Management
EC Act	Energy Conservation Act
ECBC	Energy Conservation Building Code
ECSBC	Energy Conservation and Sustainable Building Code
EDMU	Energy Data Management Unit
EESL	Energy Efficiency Services Limited
ESCO	Energy Service Company
EU	European Union
EV	Electric Vehicle
EVO	Efficiency Valuation Organisation
EWS	Economically Weaker Section
FEED	Forum for Energy Efficiency and Decarbonisation
FPC	Farmer Produce Company
FPOs	Farmer Producer Organisations
FY	Financial Year
GBPN	Global Building Performance Network
GIZ	Deutsche Gesellschaft für Internationale Zusammenarbeit
GlobalABC	Global Alliance for Buildings and Construction
GOBS	Geospatial Open Building Stack
GW	Giga Watt
GWP	Global Warming Potential
HVAC	Heating, Ventilation, and Air Conditioning
ICAP	India Cooling Action Plan
ICC	India Cooling Coalition
ICLEI	ICLEI - Local Governments for Sustainability
ICSE	International Council for Sustainable Energy
IEA	International Energy Agency
IIHS	Indian Institute for Human Settlements
IIR	International Institute of Refrigeration
IISc	Indian Institute of Science
IIT	Indian Institute of Technology
IKI	International Climate Initiative
INP	Int Nirmata Parishad

IoT	Internet of Things
IPMVP	International Performance Measurement and Verification Protocol
ISHRAE	Indian Society of Heating, Refrigerating and Air Conditioning Engineers
KPI	Key Performance Indicator
LBNL	Lawrence Berkeley National Laboratory
LC3	Limestone Calcined Clay Cement
LCA	Life Cycle Assessment
LiFE	Lifestyle for Environment
LMGS	Lean, Mean, Green, Seen
M&V	Measurement and Verification
MoEFCC	Ministry of Environment, Forest and Climate Change
MoP	Ministry of Power
MoPNG	Ministry of Petroleum and Natural Gas
MoRTH	Ministry of Road Transport and Highways
MoSPI	Ministry of Statistics and Programme Implementation
MoU	Memorandum of Understanding
MRV	Measurement, Reporting and Verification
MSME	Micro, Small, and Medium Enterprise
MT	Metric Ton
Mtoe	Million tonnes of oil equivalent
MW	Megawatt
NCDC	National Cooperative Development Corporation
NDCs	Nationally Determined Contributions
NETRA	Net Zero Energy Transition Association
NIUA	National Institute of Urban Affairs
NRDC	Natural Resources Defense Council
OEM	Original Equipment Manufacturer
OPEX	Operating Expenditure
PAT	Perform, Achieve and Trade
PCMC	Pimpri Chinchwad Municipal Corporation
PM-KUSUM	Pradhan Mantri Kisan Urja Suraksha evam Utthaan Mahabhiyaan
PMAY	Pradhan Mantri Awas Yojana
PMC	Pune Municipal Corporation
PMVA	Performance Measurement and Verification Analyst
PVCS	Primary Vegetable Cooperative Society
PwC	PricewaterhouseCoopers
RAC	Room Air Conditioner
RATA	Refrigeration and Air-Conditioning Trades Association
SAF	Sustainable Aviation Fuel
SANKALP	Sheetgrih Sashaktikaran Aur Navinikaran Ki Pehel
SBI	State Bank of India
SDA	State Designated Agency
SDGs	Sustainable Development Goals
SDI	Solar Decathlon India
SECF	State Energy Conservation Fund
SEEAP	State Energy Efficiency Action Plan
SEEI	State Energy Efficiency Index
SOP	Standard Operating Procedure
tCO_2e / $MtCO_2e$	Tonnes / Million tonnes of CO_2 equivalent
TERI	The Energy and Resources Institute
TFEC	Total Final Energy Consumption
ToD / ToU	Time of Day / Time of Use
UJALA	Unnat Jyoti by Affordable LEDs for All
UNEP	United Nations Environment Programme
UNFCCC	United Nations Framework Convention on Climate Change
UPECBC	Uttar Pradesh Energy Conservation Building Code
UPNEDA	Uttar Pradesh New and Renewable Energy Development Agency
UT	Union Territory
VICALP	Vernacular and Innovative Construction Alternatives for Low-carbon Development Practices for Buildings and Cities
WGEO	World Green Economy Organization
WRI	World Resources Institute

Message from the Chairperson

India enters the second half of this decade with clarity. Energy efficiency is no longer a technical footnote to the energy transition but a principal environmental and economic instrument. The evidence is now unambiguous. According to the India Energy Scenario Report (2024-25) by the Bureau of Energy Efficiency (BEE), energy efficiency schemes and programmes implemented during 2024-25 resulted in estimated total energy savings of 65 Mtoe, equivalent to around 7% of the country's total primary energy supply. Without energy efficiency, the estimated final energy consumption would have been 10.7% higher. These savings generated an estimated economic benefit of INR 2.8 lakh crore through avoided energy costs and prevented approximately 365 million tCO_2e of greenhouse gas emissions. Few investments return so much, so reliably, across so many national priorities at once.

This is why efficiency sits at the heart of the Atmanirbhar and Viksit Bharat vision. A country that imports most of its crude oil, must meet energy demand projected to more than double by mid-century, and competes in global markets increasingly attentive to the carbon intensity of trade cannot treat demand-side excellence as optional. Every unit of energy used to its highest productivity strengthens energy security, sharpens industrial competitiveness, preserves the environment, advances climate action, and frees capital for development. Efficiency is and should be the first resource of a self-reliant economy.

What gives me confidence is that AEEE (the Alliance) no longer has to make this argument alone. Over the past year, I have watched the recognition take institutional root, from the apex of national policymaking to the states and cities where delivery ultimately happens. Energy efficiency is moving from a specialist concern to a mainstream driver of sustainable development, economic growth, competitiveness, and resilience. That shift is the work of an ecosystem, and the Alliance's distinctive contribution has been to hold its parts together - to connect knowledge to decision, evidence to policy, policy to industry, and ultimately everything to the realities of implementation for people and planet.

The Alliance's standing rests on that connective role. We are trusted by government for our research and insights, by industry for our practicality, by implementers for our staying power, and, increasingly, we are among the voices shaping how energy efficiency is understood in national and global conversations. As we look towards 2030, our ambition is to deepen this role and to be the institution India turns to when energy efficiency must move from progress to transformation.

The work ahead is ecosystem-scale. Capital must flow at far greater volume, state institutions must be coordinated, resourced, and supported to implement, industry must build efficiency and emissions reduction into its business case, and market-based mechanisms such as carbon markets must mature into genuine drivers of demand-side action. No single actor can deliver this alone, which is precisely why a convening institution matters.

To our members, partners, funders, and the governments we collaborate with, thank you for your trust and the shared commitment. I invite all stakeholders in this journey to work with us in making energy efficiency the engine of India's rise, powering growth that is sustainable, inclusive, competitive, secure, and worthy of the nation we are building for 2047.

Venkat Garimella

Message from the President and Executive Director

The defining feature of 2025-26 for AEEE was the shift to where energy efficiency sits in India's decision-making. Across ministries, state governments, industry, and utilities, efficiency moved further from the margins of climate discussion into the core of economic and infrastructure planning. Our work this year was built to accelerate that movement.

Much of the year's most consequential work strengthened the evidence on which national decisions now rest. As a lead knowledge partner to NITI Aayog, the Alliance authored the country's first whole-of-system roadmap for decarbonising the building sector. India's first 'National District Cooling Roadmap' was launched, and we have been working with the BEE, the Ministry of Statistics and Programme Implementation, and the Ministry of Environment, Forest and Climate Change to strengthen the demand-side energy data intelligence and reporting. We also released a new public asset, the Geospatial Open Building Stack, that empowers stakeholders such as planners, financiers, and regulators with a free dataset of over 189 million buildings to adopt, adapt, and scale.

Because implementation ultimately occurs at the state and city levels, we deepened our partnerships with subnational institutions, turning aspiration into institutional commitment. We supported the Brihanmumbai and Panvel Municipal Corporations in Maharashtra in developing net-zero action plans that both corporations formally accepted. We collaborated with other states and city governments, such as Madhya Pradesh and Tamil Nadu, to strategise and execute energy efficiency actions. Alongside our work on the State Energy Efficiency Index and state-led ESCO market creation, the aim was the same - to build the institutional muscle that turns policy into delivery, and innovations into applications.

We also worked to make efficiency the default economic choice in India's markets. What began as pilots in Uttar Pradesh's brass and brick clusters has spread significantly, carried forward by the artisans, manufacturers, suppliers, associations, and government partners who have made the transition their own. The zero-CAPEX ESCO furnace pilot in Moradabad's brass cluster has catalysed over 100 further adoptions and public procurement, while the efficient Zig-Zag kiln technology adoption and operations have now reached over 30 districts, with fresh demand for brick-kiln modernisation from new units and districts, and central and state institutions moving in behind the transition. The 'National Design Guidelines for Energy Efficient Packhouses', developed with UNEP for the BEE, approved in principle, gave the cold-chain sector a common practitioners guide to build to. Our task is no longer to prove that efficiency works, but to build the conditions in which it scales without us.

On the demand side, the Alliance in partnership with All India DISCOMs Association (AIDA) is designing aggregator-led demand flexibility programmes with distribution companies across Assam, Bihar, and Odisha, broadening the pathway to 1 GW of national demand flexibility. As data centre capacity multiplies, and AI and digitalisation reshape how energy is used, we also began charting a resource-efficient path so that sustainability is designed in from the outset. Our work on affordable housing aims to make thermal comfort and climate resilience core criteria in this segment of buildings, providing evidence that affordability should not compromise well-being and safety. None of this is possible without capacity and skills. Through the SDI challenge and convenings such as Energise and FEED, we prepared the next generation of professionals and shaped how the country debates energy efficiency, a narrative we now carry onto the global stage.

My gratitude goes to the AEEE team, whose rigour and persistence animate this impact, and to our members, partners, funders, and supporters who make the work possible. The impact we pursue is systemic rather than incremental - planning frameworks that governments rely on, institutions capable of delivering, and markets in which the efficient choice is the default. The bridge between India's ambition and its implementation is being built, and we intend to keep laying its strongest spans.

Satish Kumar

About Us

Who We Are

Alliance for an Energy Efficient Economy (AEEE) enables India to do more with less energy by turning efficiency into a driver of growth, social dignity, and better everyday outcomes. Across states and priority areas, such as the built environment, cooling, food systems, transport, and industries, we help maximise energy productivity, improve thermal comfort, strengthen livelihoods, enhance industrial competitiveness, and strengthen climate resilience and environmental sustainability. We make solutions work at scale by simplifying adoption, enabling viable business models, and unlocking investments through catalytic capital. Through targeted capacity building and skilling, we equip institutions and professionals to act. By influencing how decisions are made across government, markets, and institutions, we are building a culture where efficiency becomes the default, powering India's transition to Atmanirbhar and Viksit Bharat.

Our Vision

Catalyse Responsible Use of Energy for a Climate Resilient and Energy Secure Future

Our Mission

Foster a culture and market for energy efficiency by working across government, industry, and civil society organisations and assist with:

- Integrating energy efficiency into India's Climate Action, Sustainable Development, and Net-zero Goals
- Enabling equitable energy transition

Organisation Goals - 2030

Through its work and strong collaborations with members and partners, the Alliance contributes towards achieving the following national priorities and goals:

Energy Savings: Enable 100 GW of demand offset through energy efficiency

Investments: Help create an ecosystem to facilitate INR 100,000 crore of green investment into energy efficiency interventions

Green Jobs: Undertake capacity-building programmes with partners to enable 500K+ green professionals to drive India's net-zero ambition

SDG Linkages

Contributing to 12 of the 17 SDGs

We accelerate impact as an ecosystem enabler through research, thought leadership, and implementation to meet India's 2030 Nationally Determined Contributions (NDCs) and the United Nations' Sustainable Development Goals (SDGs).

Our Core Values

Our values are rooted in principles of human rights and equity, inspired by the vision of a sustainable, energy-efficient future.

R Respect for all

I Integrity at all times

S Synergy within the ecosystem

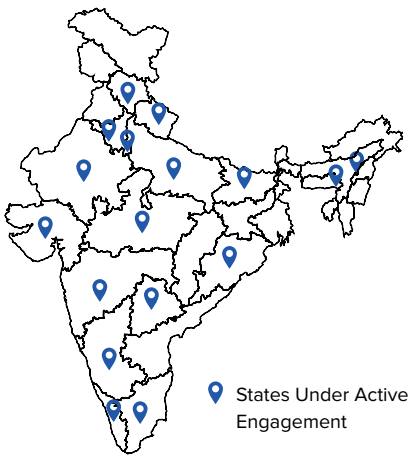
E Excellence at work

How AEEE Works

AEEE is a catalyst for India's environment preservation and sustainable energy transition - integrating systems thinking, strategic leadership, and multi-sectoral collaboration at its core. As a forward-looking organisation, the Alliance moves beyond research and technical implementation to shape the broader ecosystem, championing the triple-sector leadership model that brings together government, industry, and civil society to co-create lasting impact.

At the heart of the Alliance work lies the Lean, Mean, Green, Seen (LMGS) framework - a strategic approach that integrates energy efficiency and renewable energy, particularly in construction and manufacturing, to deliver transparent, environmentally responsible, and economically viable outcomes at both societal and national scales, thereby, serving as the lynchpin for fostering a culture of energy efficiency and driving India towards a self-reliant economy.

Activating the strategic levers through high-impact engagement methods and tools across focus areas, the Alliance strengthens policies, platforms, and partnerships that generate green jobs, unlock investments, and accelerate sustainable energy outcomes for India.

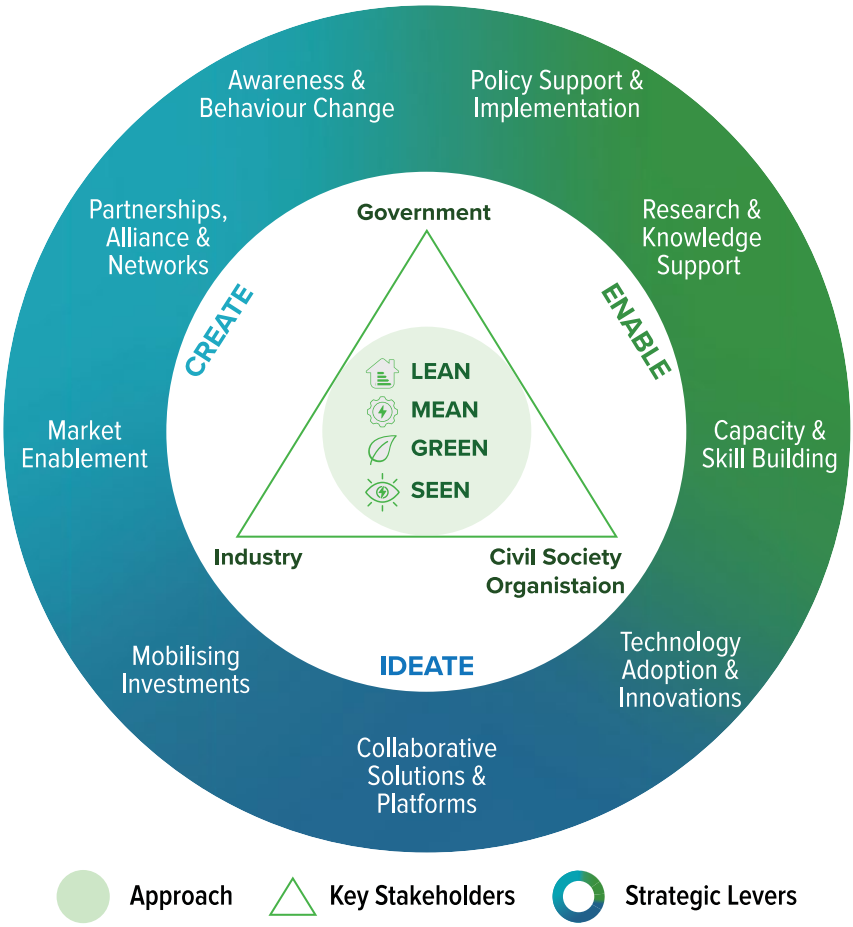


STEP 1
LEAN
Minimise energy demand through first-principle-based design

STEP 2
MEAN
Responsible application, right-sizing and adoption of efficient technologies

STEP 3
GREEN
Meet residual demand with renewable energy

STEP 4
SEEN
Showcase superior performance and impact for transparency and accountability



Our Focus Areas

Global and Local Action
Position energy efficiency as the first fuel at the global and local levels

Low-Carbon Built Environment
Enable the decarbonisation and enhance climate resilience of India's rapidly growing built environment

Sustainable Cooling and Cold Chain
Advance sustainable space cooling and refrigeration for thermal comfort and food security

Smart and Resilient Power and Mobility
Facilitate a clean energy transition through strategic demand-side interventions

Decarbonisation Catalysts
Leverage cross-cutting strategies to decarbonise priority sectors

Impact Landscape

Outreach and Impact Highlights

17
STATES UNDER ACTIVE ENGAGEMENT

07
POLICIES AND REGULATIONS IMPACTED

11
PARTNERSHIPS AND MOUs

22
NEW MEMBERS

20
REPORTS AND PUBLICATIONS

15
TRAINING AND WEBINARS

45
EVENTS AND WORKSHOPS

42K+*
DIGITAL FOOTPRINT

**as on 31 March 2026*

India to the World: Strengthening the Global Case for Energy Efficiency

Energy efficiency remains the world's most powerful yet underused resource in the sustainable energy transition journey. At United Nations Framework Convention on Climate Change (UNFCCC) COP28 in Dubai, nearly 200 governments committed to doubling the global average annual rate of energy efficiency improvement to 4% by 2030, yet progress has averaged just 1.3% per year since 2019, with an estimated improvement of 1.8% in 2025 (Energy Efficiency 2025, IEA). Momentum, however, is building where it matters most - global efficiency-related investment is set to reach nearly USD 800 billion in 2025. In India energy intensity improvement is estimated at over 4%, well above its post-2019 average, demonstrating that environmental preservation; rapid, inclusive growth; and accelerating efficiency progress can advance together.

Energy efficiency is non-negotiable for a sustainable energy transition. Record renewable capacity additions deliver on their promise only when demand is managed intelligently. Where demand is unable to be fulfilled by renewable supply and fossil fuel generation fills the gap, achieving clean energy targets become difficult and expensive. Efficiency ensures that every unit of energy produced reaches end users and is utilised with maximum productively, converting capacity additions into genuine decarbonisation, environmental preservation, affordability, and energy security. UNFCCC COP30 in Belém sharpened this imperative, marking a decisive shift from pledges to delivery. Parties agreed to work towards mobilising USD 1.3 trillion annually in climate finance by 2035, operationalised a new Just Transition Mechanism, launched the Global Implementation Accelerator and the Belém Mission to 1.5 (Mutirão decision and accompanying decisions, November 2025). Each of these outcomes runs through energy efficiency, the measure that makes climate finance go further and turns national commitments into savings that households, industries, and grids can feel.

As a systemic enabler and thought leader from the Global South, AEEE is strengthening the global narrative on energy efficiency and catalysing progress on the doubling goal through its action on the ground in India. In 2025-26, the Alliance deepened its engagement with international alliances, taskforces, and forums, championing collaboration, peer learning, and shared and open knowledge as the fastest route to carrying India's lessons to the Global South and closing the gap between global ambition and delivered impact.

Global Collaboration for Energy Efficiency Leadership

In 2025-26, the Alliance continued to engage with leading international and multi-stakeholder platforms to advance energy efficiency across key themes such as sustainable cooling, buildings and sectoral decarbonisation, and public-private collaboration. Through these alliances, AEEE contributes to shaping global and national environmental preservation and sustainablity `agenda by promoting energy efficiency as the first fuel, supporting people-centric approaches, and enhancing visibility through strategic communications. These engagements also play a pivotal role in mobilising private sector investment and support for scalable, high-impact solutions, reinforcing India's position in the global energy efficiency landscape.

Global Network Partners

AEEE continued its active engagement and established new partnerships, coalitions and alliance with global networks, contributing India's perspective and drawing on international best practice across platforms.

AEEE became a member of Global Alliance for Buildings and Construction (GlobalABC), the leading global platform for a zero-emission, efficient, and resilient buildings and construction sector. Through this membership, the Alliance will engage with the GlobalABC's knowledge hubs, contribute India's experience in building energy codes, affordable housing, and whole-life carbon to international peer learning, and draw on global best practice, tools, and progress-tracking frameworks to strengthen its work on the low-carbon built environment.

Showcasing India's Energy Efficiency Leadership at Global Platforms

In 2025-26, AEEE strengthened India's presence at high-impact international forums, from UNFCCC COP30 in Belém to global conferences on energy efficiency, sustainable cooling, and the built environment. Across sessions, side events, and strategic dialogues, the Alliance shared policy insights, sectoral expertise, lessons from on-ground implementation, and carrying India's experience to audiences across the Global South and beyond.

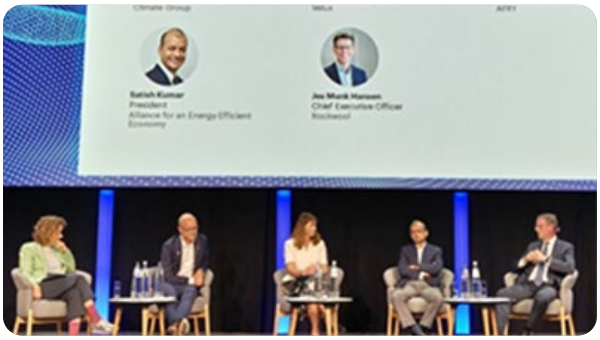
International ESCO Symposium 2025

May 2025, Istanbul

AEEE participated in the 2nd International ESCO Symposium, organised by the Global ESCO Network in collaboration with the UNEP Copenhagen Climate Centre and the Efficiency Valuation Organization (EVO). During a global panel discussion, the Alliance shared key insights on the evolving ESCO market in India, bringing lessons from one of the world's most dynamic energy services markets to an international audience.

IEA's 10th Annual Global Conference on Energy Efficiency

June 2025, Brussels, Belgium



AEEE led a dynamic delegation of experts to the IEA's 10th Annual Global Conference on Energy Efficiency in Brussels. Experts from the Alliance and it's member organisations contributed to critical conversations to showcase India's commitment to energy efficiency and strengthen global momentum for making it a cornerstone of climate action and an energy-secure future. Underscoring this vision at the conference, the Alliance emphasised that energy efficiency is not just a stopgap or a technical fix, but a way of living, about making smarter choices in how we build our cities, cool our homes, and power our industries.

47th Meeting of the Open-ended Working Group of the Parties to the Montreal Protocol (OEWG-47)

July 2025, Bangkok

At OEWG-47, AEEE joined NRDC to co-host a strategic roundtable on shaping regional Centres of Excellence for sustainable cooling in developing countries. Drawing on lessons from existing Centres of Excellence, the convening brought together global experts and national representatives to explore how such platforms can accelerate the transition to sustainable cooling across the Global South.

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Building Simulation Conference 2025

August 2025, Brisbane

AEEE, in collaboration with Saint-Gobain Research India, presented research on the Life Cycle Assessment (LCA) of buildings at the Building Simulation Conference 2025. The Alliance showcased the development of an India-specific LCA simulation framework for buildings and explored low-carbon design strategies to reduce the whole-life carbon footprint of Indian buildings, contributing India's research to the global evidence base on building decarbonisation.

UNFCCC COP30

November 2025, Belém, Brazil

UNFCCC COP30 concluded in Belém with meaningful progress on finance and implementation, even as countries stopped short of a fossil fuel phaseout. Parties agreed to triple adaptation finance by 2035, operationalise a new Just Transition Mechanism, and work towards mobilising USD 1.3 trillion annually by 2035. Through its active role in high-level discussions, partnerships, thematic sessions and side events, the Alliance emphasised the role of energy efficiency as the "first fuel" for sustainable growth. The Alliance focused on advancing cross-sectoral collaboration, promoting investment in efficient technologies, and showcasing India's leadership in the decarbonisation of the built environment, cooling, MSMEs, and other priority sectors. The Alliance's contributions aimed to inspire evidence-based policymaking and scalable implementation strategies that drive inclusive, low-carbon development aligned with global climate action.

At the World Green Economy Organization (WGEO) Pavilion, AEEE's session on 'Mainstreaming Energy Efficiency as the First Fuel' emphasised the need for mandatory benchmarking, transparent data systems, and skilling to make efficiency measurable, investible, and locally owned, supported by stronger international cooperation.

At UNFCCC side event, 'Building Business and Technical Capacity to Reach 2030 Energy Transition Goals', co-hosted by AEEE, International Council for Sustainable Energy, Alliance to Save Energy and Association of Energy Engineers, global leaders reaffirmed efficiency's multidimensional value and deliberated how a broad portfolio of energy efficiency and clean energy technologies across the built environment and power sector are needed to meet climate goals and rising energy demand. The event highlighted the need for better storytelling, workforce development, and data transparency to accelerate implementation.

As UNFCCC COP30 shifts global attention towards finance, implementation, and just transitions, the Alliance recommends putting energy efficiency at the core of climate investment; scaling subnational climate action through governance, capacity, and tools; making climate finance work for priority sectors; and leveraging Article 6 and international cooperation for technology transfer. The Alliance will continue to drive these priorities through research, policy support and implementation, and systems-level innovation across India's energy transition.

Roundtable on Doubling Energy Efficiency Progress

March 2026, New Delhi

The BEE, the IEA, and AEEE convened a high-level roundtable on accelerating energy efficiency in India, focusing on key policy priorities and implementation tools. Discussions emphasised strengthening a system-level approach to efficiency, moving beyond isolated interventions to integrated planning across sectors and value chains, alongside the growing role of digitalisation, AI, and data-driven solutions in optimising energy use and monitoring.

Empowering India's States and Union Territories to Lead Sub-National Climate Action

Our Goal

To empower and support states and union territories in India to integrate energy efficiency and accelerate climate action through stronger institutions, evidence-based policymaking, and effective implementation.

India's clean energy transition is often viewed through the lens of renewable energy deployment. However, energy efficiency remains one of the most powerful and cost-effective pathways for decarbonisation. As per the India Energy Scenario Report (2024-25) by the BEE, the implementation of energy efficiency schemes and programmes during 2024–25 resulted in total energy savings of 65 Mtoe, equivalent to around 7% of the country's total primary energy supply. These savings generated an estimated economic benefit of INR 2.81 lakh crore through avoided energy costs and prevented approximately 365 $MtCO_2e$ of greenhouse gas emissions. This represents significant measurable contributions to environmental protection, delivered entirely through the more productive use of existing energy resources.

As India advances towards the vision of Viksit Bharat 2047, energy demand is projected to grow by 2 to 2.5 times. Meeting this demand sustainably will require states and union territories to play a pivotal role in driving local action. Energy efficiency offers a unique opportunity to simultaneously strengthen energy security, enhance economic competitiveness, protect the environment by reducing emissions, and improve development outcomes, delivering returns that can be up to four times higher than the initial investment.

India's commitment to reducing the emissions intensity of its GDP by 47% by 2035 and achieving net-zero emissions by 2070 further underscores the need to mainstream efficiency across sectors. Since these national commitments must ultimately be supported through sub-national action, the Alliance works closely with state governments, State Designated Agencies (SDAs), urban local bodies, and sectoral stakeholders to strengthen institutional capacity, accelerate policy implementation, mobilise investment, and build a robust ecosystem for energy efficiency action.

Key Highlights

Capacity building of 300+ officials from ~20 institutions through nine (9) capacity-building programmes across Kerala, Haryana, and Maharashtra.

Supported creation of Kerala's ESCO Marketplace, resulting in the empanelment of energy service providers and strengthening the state's energy efficiency ecosystem.

Supported the development of Haryana's Draft Cold Storage Modernisation Scheme to improve energy performance and reduce post-harvest losses.

Advanced institutional strengthening for energy efficiency governance across six (6) states through SDA capacity-building, financing frameworks, policy support, and implementation roadmaps.

Key Project and Activities

State Energy Efficiency Index 2025

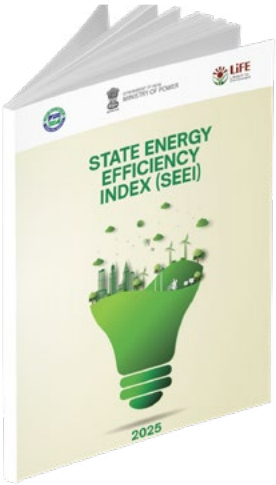
The State Energy Efficiency Index (SEEI) continued to serve as India's flagship framework for subnational energy efficiency governance by assessing and benchmarking energy efficiency progress across states and union territories, since its inception in 2018. Developed to institutionalise energy efficiency progress reporting, promote healthy competition, and support evidence-based decision-making, SEEI 2025 places greater emphasis on implementation outcomes and measurable progress.

The framework introduces refined indicators to capture measurable outcomes, including enforcement actions under Sections 13A, 14, and 15 of the Energy Conservation Act, such as the preparation of Annual Inspection Plans and the completion of compliance inspections, as well as the achievement of sampling targets under the Standards and Labelling Programme. It further evaluates ESCO-based project implementation over the past five years, progress in notifying the Energy Conservation and Sustainable Building Code (ECSBC), and initiatives supporting MSME decarbonisation under the ADEETIE scheme. Together with broader sectoral enhancements, these targeted additions enable SEEI 2025 to more accurately reflect states' implementation capacity and commitment to energy efficiency.

The Index evaluates state performance through 67 indicators across seven sectors, including buildings, industry, municipal services, transport, agriculture, DISCOMs, and cross-sector initiatives, using a balanced mix of quantitative, qualitative, and outcome-based measures. Together, these indicators assess policy adoption, programme execution, technology deployment, sectoral coordination, and institutional readiness across states and union territories, supported by a robust and transparent assessment framework drawing on verified data from the BEE, SDAs, CEA, EESL, MoP, MoRTH, MoPNG, and State Electricity Regulatory Commissions.

Key Findings

- **Buildings and appliances:** 21 states progressed on ENS notifications; 23 adopting BEE star appliances (14 extended to commercial); 27 implementing ECBC; 25 providing advisory support; 16 driving capacity building.
- **Industry:** 11 states mandated Mandatory Energy Audit for non-PAT sectors; 25 identified MSME clusters; 22 recognising industries via awards; 19 expanding PAT; 15 conducting capacity building.
- **Municipal:** 25 states advancing climate/net-zero plans; 17 implementing EE in streetlighting/water/sewerage; 15 deploying energy management systems; 12 running capacity-building programmes.
- **Transport (EVs):** 31 states have EV policies; 23 mandate charging infrastructure in commercial buildings; 13 in residential; 29 offering incentives; 11 supporting capacity building.
- **DISCOM/DSM:** 12 states advancing DSM/DR policies; 13 have approved DSM plans; 14 implementing ToD/ToU tariffs; 17 running DSM programmes; 19 building DISCOM capacity.
- **Agriculture:** 17 states promoting EE practices; 16 integrating EE in cold storage; widespread adoption of efficient pumps (PM-KUSUM); 18 running dedicated programmes.
- **Cross-sector/SEEAP:** 18 states initiated SEEAPs (7 with budgets); 14 integrating with SAPCC; 12 enforcing the EC Act via action plans; 20 strengthening inter-departmental coordination.



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State-Level Energy Efficiency Implementation in India

Implemented under the Mission Efficiency India Initiative led by Sustainable Energy for All (SEforALL) in collaboration with AEEE, this programme accelerated the adoption and implementation of energy efficiency interventions across Kerala, Haryana, and Maharashtra while strengthening national enabling frameworks. Working closely with the BEE, SDAs, EMC Kerala, and the Department of Horticulture, Haryana, the initiative bridged the gap between policy ambition and implementation. It supported the establishment of a state-led ESCO Marketplace, development of a simplified Green Building Rating Manual, implementation of a behavioural energy efficiency pilot in Kerala; developed a Draft Cold Storage Modernisation Scheme for Haryana. At the national level, the programme contributed by developing frameworks to strengthen SDA financial independence, advancing State Energy Conservation Fund (SECF) reforms as a revolving financing mechanism, and developing scenarios to support India's ambition of doubling the rate of energy efficiency improvement. Through nine capacity-building programmes involving nearly 300 officials from around 20 institutions, the initiative strengthened institutional capacities, fostered cross-state learning, and created scalable implementation models for long-term energy efficiency adoption.

Scaling State Energy Efficiency Implementation

Implemented in collaboration with CLASP and Center for Strategic and International Studies, this multi-year programme is strengthening the institutional foundations required to scale energy efficiency implementation across Indian States. Working closely with SDAs and State Governments, the initiative combines policy support, institutional reforms, financing innovation, and global best practices to enhance the effectiveness, financial sustainability, and long-term impact of state energy efficiency ecosystems. Through institutional diagnostics, stakeholder consultations, and technical assistance, the programme is supporting SDAs in identifying operational gaps, improving governance and inter-departmental coordination, and developing pathways for greater financial autonomy. Particular emphasis is being placed on enhancing the institutional capacity of SDAs for effective energy efficiency governance and revitalising SECFs in alignment with BEE guidelines through innovative financing approaches, implementation models, and state-specific sectoral interventions. The programme is currently being implemented in Tamil Nadu, Madhya Pradesh, and Maharashtra. By establishing stronger institutional and financing frameworks, the initiative is enabling States to design, finance, and implement high-impact energy efficiency programmes while developing scalable models for replication across India.

Strengthening India's Demand-Side Energy Framework

Robust data systems are essential for effective energy planning, implementation, and performance monitoring. Yet India's demand-side energy data ecosystem continues to face challenges related to fragmented datasets, limited end-use visibility, and inconsistent reporting methodologies. To address this gap, the Ministry of Statistics and Programme Implementation (MoSPI) constituted an Expert Committee on Energy Statistics in 2025. AEEE provided technical expertise towards strengthening the demand-side architecture of India's energy data systems as part of this committee.

Working in collaboration with the BEE through the Energy Data Management Unit, the Alliance also supported the development of a structured Demand-Side Energy Data Framework aligned with international statistical standards. The framework strengthens Total Final Energy Consumption estimation, improves sectoral allocation methodologies, enhances transparency, and enables stronger linkage between energy consumption and economic activity.

Guided by the IEA's Energy End-use Pyramid, the framework establishes a phased roadmap to improve data granularity, strengthen energy intensity indicators, reduce reporting gaps, and support more robust monitoring of India's energy efficiency progress. The initiative lays the foundation for more credible national planning, international climate reporting, and evidence-based policymaking in the years ahead.

Low-Carbon, Smart, and Climate-Resilient Built Environment

Our Goal

To ensure a climate-resilient, energy-efficient, and sustainable built environment in India: Footsteps towards our net-zero commitment.

India's buildings are the country's fastest-growing source of energy demand. As urbanisation accelerates towards a projected 65% by 2070 and living standards rise, the energy consumed in buildings for cooling, lighting, appliances, and the processes that support urban life will reshape the national grid. NITI Aayog's 'Scenarios Towards Viksit Bharat and Net Zero: Sectoral Insights (Buildings)' captures the scale of this shift starkly - residential air conditioner ownership is set to surge from under 10% today to 80% by 2070, with space cooling demand alone projected to grow nearly tenfold on the 2017-18 baseline. With 86% of India's projected 2070 building stock yet to be constructed, the design choices, materials, appliances and equipment adopted today will lock in either an energy-intensive or a resource-efficient, low-environmental footprint trajectory for the next half-century. For millions of low-income households already living through extreme heat in thermally inadequate homes, this is not an abstract policy question. Inadequate thermal performance drives up energy expenditure on cooling, undermines human productivity, and places health at risk, making the quality of the built environment a direct determinant of household wellbeing and economic resilience. At the same time, existing buildings account for a significant share of electricity consumption, and many were constructed with limited consideration for energy efficiency. As a result, decarbonising the existing building stock is also critical to achieving climate goals.

During 2025–26, the Alliance continued advancing policy and regulatory frameworks at national and sub-national levels, deepening research on lifecycle carbon and passive cooling strategies, supporting states in retrofitting existing buildings, especially public buildings, scaling platforms for industry-wide collective action, and generating empirical evidence on the thermal conditions faced by India's most climate-exposed communities. Across these efforts, the Alliance's work sought to create conditions under which energy-efficient, environmentally responsible, thermally-resilient and low-carbon buildings become the default in India's built environment, not the exception.

Key Highlights

NITI Aayog's first whole-of-system building sector decarbonisation roadmap, 'Scenarios Towards Viksit Bharat and Net Zero: Sectoral Insights (Buildings)', authored by AEEE as the lead knowledge partner, establishes the national evidence base and integrated policy framework for India's built environment transition to Net-zero 2070.

Four (4) policies strengthened across national and municipal levels, including the UPECBC implementation mechanism into the 'Model Building Construction and Development Byelaws, and 'Model Zoning Regulations for Development Authorities of Uttar Pradesh, 2025,' and Net-zero Municipal Building Roadmaps formally accepted by the Brihanmumbai and Panvel Municipal Corporations.

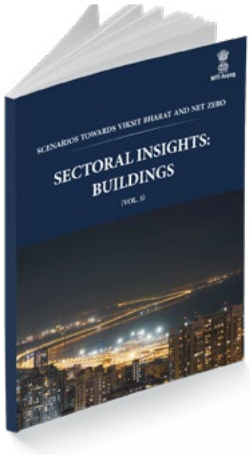
~450 stakeholders directly empowered across six (6) cities – Delhi, Pune, Nagpur, Lucknow, Noida, and Dehradun, spanning government bodies, architects, developers, and green building consultants.

Two (2) pilots supported in Dehradun (Naukuchiatal) and Pune, testing passive design strategies to validate low-carbon building approaches across diverse climatic contexts.

Key Project and Activities

NITI Aayog Building Sector Decarbonisation Roadmap

AEEE served as lead knowledge partner and principal author for NITI Aayog's 'Scenarios Towards Viksit Bharat and Net Zero: Sectoral Insights (Buildings),' India's first whole-of-system decarbonisation strategy for the building sector, aligned with the Net-zero 2070 target and Viksit Bharat 2047 vision. NITI Aayog constituted an inter-ministerial working group spanning six ministries - including MoP/BEE, MoHUA, MoRD, MNRE, and MoEFCC, alongside a 25+ member multi-stakeholder group spanning government, industry, academia, and research, including CEPT, CLASP, CREDAI, CSTEP, IITs, LBNL, Lodha Group, NIUA, PwC, SBI, and TERI, to build consensus on priority actions. The Alliance provided the technical backbone and convening, developing the decarbonisation pathways that decouple economic growth from environmental impact. The resulting national roadmap defines near, medium, and long-term actions for the sector's entire ecosystem - developers, contractors, manufacturers, consultants, ministries, and owners. It has already catalysed concrete outcomes, including a NITI Aayog working group on whole life carbon assessment, product category rules for construction, and a carbon inventory of key materials.



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Di-Carb: Development of Integrated Carbon Assessment (Embodied and Operational) Framework

Di-Carb is focused on developing a lifecycle assessment framework specific to India's buildings and construction sector, supporting developers in decision-making based on a whole life carbon approach. Phase 1 resulted in peer-reviewed publications on this framework, directly enabling developer onboarding for Phase 2, which uses energy simulation tools combined with Life Cycle Assessment methodology to examine how building typology, wall and window materials, window-to-wall ratio, and climate zone affect embodied and operational emissions, HVAC sizing, and lifecycle costs. Real design-phase buildings served as test cases, validating findings against practical constraints rather than idealised scenarios. The project engages developers, facility management entities, and material manufacturers throughout, ensuring low-carbon strategies are evaluated against cost, constructability, and market availability, directly supporting developers in weighing design choices on both cost and carbon. This growing evidence base will further support shaping the dialogue of NITI Aayog's steering committee on lifecycle assessment.

VICALP: Vernacular and Innovative Construction Alternatives for Low-carbon Development Practices

Project VICALP, part of AEEE's multi-year program on mainstreaming low-carbon construction materials, bridges India's formal building sector with traditional, locally grounded construction knowledge that has long delivered climate-responsive, low-embodied carbon solutions. Working across Pune, Shillong, and Dehradun - selected for distinct climatic and ecological conditions - AEEE, with IIT Bombay, developed city-specific building stock and emissions models, alongside a matrix of viable low-carbon construction options validated through local consultation and case studies. Partnerships with urban local bodies, development departments, municipal offices, material manufacturers, developers, contractors, and masons enabled regionally tailored activities, supported by capacity building for senior officials. Key outcomes include a city-scale embodied carbon tool and a directory of low-carbon materials, both valuable for climate action planning and green procurement, and two building owners launching pilot projects using low-carbon materials. Further integrated with geospatial building stock and AI-based construction system analytics, the tool can rapidly scale to flag embodied carbon hotspots across Indian cities.

Developing Net-Zero Municipal Building Action Plans in Maharashtra

As per AEEE's strategic focus to empower sub-national actors, states and union territories in India, to integrate energy efficiency and advance climate action, the Alliance partnered with C40 Cities to develop comprehensive Net Zero Action Plans for the Brihanmumbai and Panvel Municipal Corporations, supporting Maharashtra's ambition of a net zero municipal building stock. The plans set out short, medium, and long-term roadmaps for emissions reduction across municipal buildings, covering energy-efficient retrofits, high-efficiency appliance procurement, rooftop solar integration, and OPEX-based financing models that move beyond conventional CAPEX approaches. Both roadmaps have been formally accepted by their respective corporations and Maharashtra's State Climate Action Cell, moving institutions from aspiration to committed implementation, while signalling market demand that can help build supply chains for low-carbon products. Building on this momentum, the Alliance is now supporting Brihanmumbai Municipal Corporation for implementation of the recommendations by developing investment-ready project profiles for high-impact building typologies and a decision support tool for green municipal procurement.

Catalysing Sub-National Climate Action in Maharashtra and Uttar Pradesh

As part of India's net-zero transition, the project promotes sustainable and energy-efficient buildings in Maharashtra and Uttar Pradesh through energy performance benchmarking, energy and emissions disclosure, and implementation of building energy codes, while strengthening institutional capacity for long-term climate action. Under the project, the Alliance supported the Pune Municipal Corporation (PMC) and Pimpri Chinchwad Municipal Corporation (PCMC) in advancing energy-efficient municipal buildings under an MoU with these corporations. The support included benchmarking the energy performance of municipal buildings and developing a scheme for energy efficiency retrofitting. In Uttar Pradesh, AEEE supported the state in strengthening the implementation of energy efficiency policies and regulations in partnership with NRDC and Dr APJ Abdul Kalam Technical University. A key achievement was integrating the UPECBC implementation mechanism into the 'Model Building Construction and Development Bye-laws and Model Zoning Regulations for Development Authorities of Uttar Pradesh, 2025', thereby enabling the systematic enforcement of energy-efficient building practices across the state.

Decarbonisation Business Charter: Catalysing Collective Action Across the Building Sector

The Decarbonisation Business Charter (DBC) was launched in 2023 by AEEE, WRI India, Mahindra Lifespace Developers Limited, and EcoCollab as a private sector-led movement to decarbonise India's building sector through a value chain-based approach. It now serves as the coalitional infrastructure driving systemic change across the sector, with over 135 signatories, developers, consultants, manufacturers, and asset owners committed to six priority areas - net zero design, science-based targets, operational efficiency, climate-aligned building codes, and performance monitoring. During 2025-26, DBC deepened its reach through regional dialogues in Delhi, Bengaluru, Mumbai, and Pune, engaging over 200 stakeholders, while an MoU with the Global Building Performance Network and a partnership with UNEP on passive cooling strengthened its influence among real estate developers. Key activities include developing portfolio level net-zero action plans for six developers in partnership with GBPN, a new Measurement Reporting and Verification (MRV) framework for signatories, and workshop on passive design strategies in five cities (Lucknow, Noida, Pune, Nagpur and Mumbai) benefiting more than 20 developers and two developers onboarded for further passive design implementation support, positioning DBC as India's first value chain platform for philanthropic co-investment in building sector decarbonisation.

Sustainable Construction Practices: Thermal Performance Assessment of Aluminium Formwork Construction

In alignment with it's strategic focus of providing thermal comfort for all, AEEE initiated a research-based project to assess the thermal performance of aluminium formwork-based construction (widely known as Mivan construction), an industrialised technique gaining traction across India's affordable and mass housing segments, where thermal and energy performance remain insufficiently understood. The study combined year-long field measurements with calibrated building energy simulations to evaluate thermal comfort and cooling energy performance in a typical high-rise apartment, alongside climate-responsive measures. External wall insulation and cool wall coatings emerged as the most effective solutions, significantly reducing indoor temperatures, increasing comfort hours, and lowering cooling energy demand. These findings support policymakers in mandating thermally sound provisions for this construction technique, and help developers deploy solutions to mitigate heat stress. Through measurement-based assessment, this study provides evidence to support climate-responsive building envelope design and demonstrates how simple passive measures can improve occupant comfort, reduce electricity consumption, and inform future housing policies, building standards, and sustainable residential construction practices in India.

ReVIVE-SHELTER: The Thermal Price of Affordability

For low-income households in India's urban and peri-urban areas, the cost of housing does not end with purchase or rent. Poor thermal performance in common construction typologies leads to elevated indoor temperatures, increased energy expenditure for mechanical cooling, higher water consumption, and adverse health impacts that accumulate over the summer months. This research project, supported by the H T Parekh Foundation, combines in-situ thermal monitoring, household surveys, economic assessments, and documentation of residents' coping practices to generate empirical evidence linking the thermal performance of affordable housing (constructed with different choices of materials) to occupants' lived experience during periods of extreme heat. Its ambition is to redefine what housing affordability means - not simply the upfront or monthly cost of shelter, but the full thermal and economic burden that poor building performance places on those least equipped to absorb it. By making the hidden costs of thermally inadequate housing visible, ReVIVE-SHELTER provides the evidence base for policy recommendations that treat climate-responsive design as an equity imperative and position thermal resilience as a core criterion in India's affordable housing standards.

Advancing Resource-Efficient Growth of India's Data Centre

India's data centre sector is one of the fastest-growing segments of the country's digital economy, with installed capacity projected to grow from 1.6 GW today to 8 GW or more by 2030, while announced industry investments indicate a pipeline exceeding 17 GW. As the sector scales, cooling systems, which account for 30–50% of total facility energy consumption, and their associated refrigerants are emerging as a critical intersection of energy efficiency, water stewardship, and India's commitments under the Kigali Amendment to the Montreal Protocol. This policy brief by AEEE highlights that improved cooling performance could reduce cooling power demand by 40–45%, delivering potential power savings of 440 MW by 2026 and 1,760 MW by 2030, alongside water savings of up to 9 billion gallons by 2026 and 36 billion gallons by 2030.

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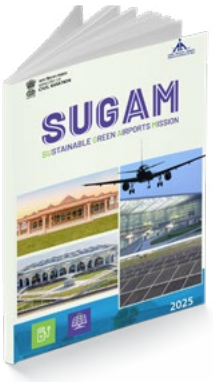
SUGAM: Sustainable Green Airports Mission

Following the first-ever nationwide airport sustainability benchmarking exercise through the inaugural SUGAM report in 2023, AEEE continued its partnership with the Airports Authority of India (AAI) to strengthen the initiative. The second edition of the report documents sustainability efforts across airports managed by AAI and those operating under the Public-Private Partnership (PPP) model, showcasing progress in renewable energy adoption, energy efficiency, and sustainable infrastructure. It also expands the benchmarking of airport energy consumption and carbon emissions through normalised metrics based on passenger traffic, aircraft movements, and airport size, enabling airports to assess their performance against peers, identify opportunities for operational improvements, and accelerate their transition towards net-zero emissions while strengthening collective climate action commitments.



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Technologies for Net-Zero Airports: A Blueprint for Sustainable Aviation Infrastructure

Through its long-standing partnership with the Airports Authority of India (AAI), the Alliance serves as a strategic technical partner in advancing the decarbonisation of India's aviation sector. As part of this collaboration, the Alliance developed a blueprint to support airports in aligning with both India's Net-zero 2070 target and the global aviation industry's Net-zero 2050 commitment. The study identified twelve high-impact energy efficiency and low-carbon technologies across airside, terminal, and landside operations, including Fixed Electric Ground Power, Sustainable Aviation Fuel, radiant cooling, refrigerant transition, LC3 cement, fleet electrification, and HVAC modernisation. Designed as a practical decision-support tool, the compendium provides AAI and private airport operators with technology-specific capital expenditure estimates, financial viability assessments, and financing pathways to guide investment decisions. At its core is a phased implementation framework - covering foundational actions, infrastructure expansion, and advanced decarbonisation - providing airports with a practical, sequenced roadmap for their transition. The partnership also lays the foundation for future sector-wide decarbonisation studies and implementation support across India's rapidly expanding airport network.

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GOBS
Geospatial Open Building Stack

Scan or click
to view the website

Planning for energy efficiency, cooling, solar deployment, and climate adaptation in India has long been constrained by the absence of reliable building-level data. To address this gap, AEEE developed the Geospatial Open Building Stack (GOBS), a free, open-access dataset comprising more than 189 million building records across all 36 states and union territories.

Built on open-source satellite data and supported by Google's computing infrastructure, GOBS provides state- and district-level datasets and insights on building counts, footprint area, height distribution, land-use patterns, and key building attributes, including location, height, estimated number of floors, built-up area, and functional typology. By establishing a foundational digital layer for India's built environment, GOBS enables a new generation of data-driven applications for researchers, urban planners, regulators, and decision-makers.

High-impact Application Domains

Embodied Carbon Assessment

Map carbon footprints of building materials and construction practices to inform low-carbon material choices.

Cooling Hotspots

Locate zones of high cooling demand to optimise passive cooling interventions and support renewable integration.

Cool Roofs & Rooftop Solar

Identify optimal rooftops for solar installations and cool roof adoption to reduce heat absorption and boost clean energy.

Multi-Hazard & Resilience Mapping

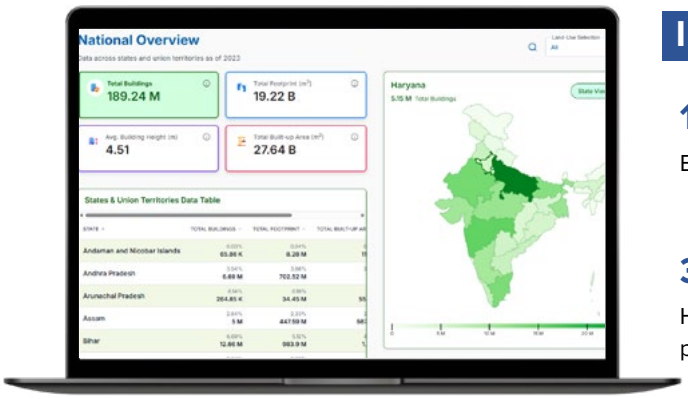
Identify high-risk buildings and vulnerable urban areas to guide targeted climate adaptation strategies.

Flood Resilience & Urban Adaptation

Pinpoint flood-prone zones to enhance stormwater management and drive resilient urban planning.

Retrofit & Low-Carbon Construction

Target buildings for energy-efficient retrofitting and integrate performance benchmarking for a sustainable building stock.



Impact at a Glance

189M+
Building records

36
States & UTs covered

6
Application domains

30 teams
Hackathon participants

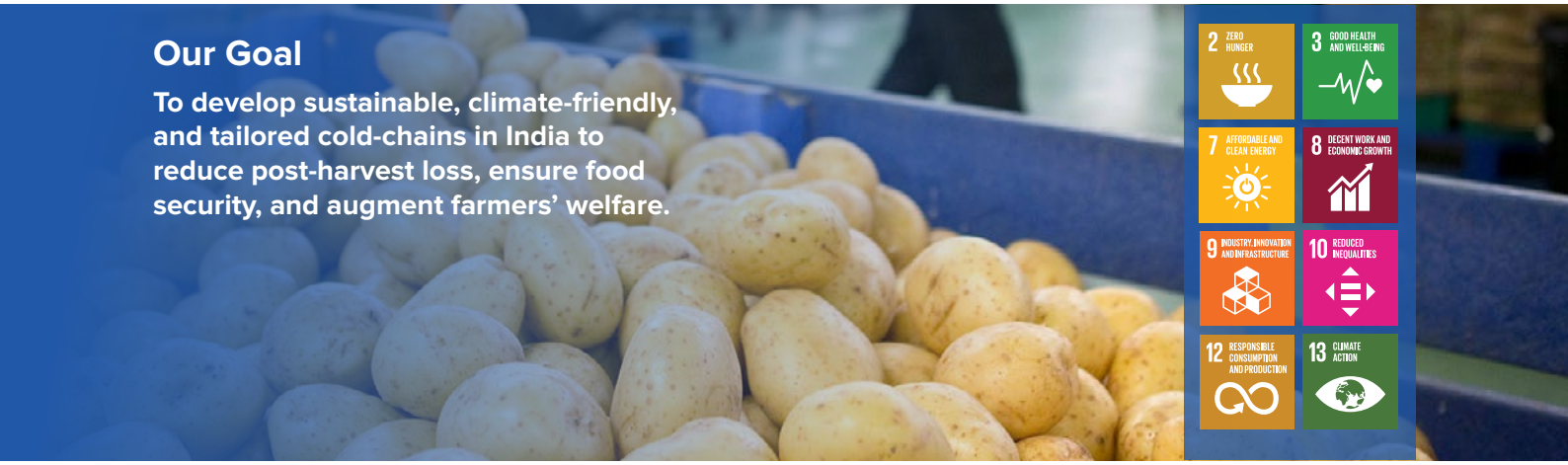
100+
Participants engaged

10,000+
Compute hours

GOBS Hackathon 'De-Code the District' at FEED 2026

To accelerate community-led applications of the GOBS platform, AEEE hosted the 'De-Code the District' hackathon in February 2026 in New Delhi, alongside AEEE's FEED 2026. Structured across two tracks, Academic and Young Professionals, the hackathon invited teams to conduct rigorous data analysis or build working prototypes for any district or Union Territory using the GOBS dataset. Thirty teams comprising 100+ participants from undergraduate programmes, postgraduate institutions, research organisations, and early-stage startups worked across seven suggested geographies, including Delhi-NCR, Mumbai, Bengaluru, and Chennai.

Addressing the Food-Energy-Climate Nexus and Boosting Farmers' Livelihoods



Our Goal

To develop sustainable, climate-friendly, and tailored cold-chains in India to reduce post-harvest loss, ensure food security, and augment farmers' welfare.

India's cold-chain deficit is a macroeconomic problem as much as an agricultural one. Fragmented infrastructure, ageing storage assets, and inadequate first-mile cooling result in post-harvest losses of 15-25% for fruits and vegetables, eroding farmer incomes, and contributing to greenhouse emissions. Building an integrated, renewable-powered, and energy-efficient cold chain has become essential to achieving the national imperative of doubling farmers' income, reducing emissions, and delivering on the India Cooling Action Plan.

AEEE works across the full cold-chain system to translate this imperative into action. We are advancing the modernisation of legacy cold storages, demonstrating decentralised, renewable energy-powered cold room solutions at the farmgate, and connecting the cold storages through electric-powered and energy-efficient transport solutions. Underpinning this on-ground work is applied research on technologies and low-GWP natural refrigerants directly advancing India's commitments under the Kigali Amendment to the Montreal Protocol; business integration between sellers and buyers; and accessing public and private financing. The aim is to transform India's rural cold chain from a subsidy-dependent, ageing, single-commodity system into a future-ready ecosystem that is energy-efficient, climate-aligned, commercially viable, and inclusive. By strengthening profitability and resilience, it seeks to improve farmer incomes while expanding equitable access to modern cold-chain infrastructure for millions of underserved producers.

Key Highlights

Designed the model Detailed Project Report (DPR) for India's first Net-zero Packhouse in Darbhanga, Bihar, establishing a replicable blueprint for climate-resilient post-harvest infrastructure and accelerating procurement-ready, scalable deployment across states.

Deployed electric carts and IoT-enabled cold chain monitoring in Bihar, avoiding ~4.8 tCO_2 annually, cutting energy use by 85-90%, and improving farmer's market access

Enabled the formal announcement of the Haryana Cold-Chain Policy, culminating in its integration into the State Budget 2026–27 and strengthening the policy ecosystem for sustainable cold-chain investments.

Mobilised government agencies, financial institutions, technology providers, and agripreneurs through high-impact stakeholder engagements with the UP Horticulture Department (Lucknow), NCCD (Panchkula), and industry partners (Pune), advancing the adoption of sustainable packhouses and decentralised renewable energy (DRE)-powered micro cold rooms.

Co-authored produce-specific technical guidelines for litchi and mango, and developed a comprehensive SOP handbook on post-harvest government subsidy schemes, equipping policymakers, implementing agencies, and practitioners with standardised resources for wider adoption.

Key Projects and Activities

Sheetgriha Shashaktikaran aur Naveenikaran ki Pehel (SANKALP)

Initiated in 2023, AEEE's SANKALP initiative drives a climate-aligned transformation of India's cold storage infrastructure by transitioning traditional, single-chambered cold storages into energy-efficient, multi-produce, multi-chambered facilities. Building strong state-level momentum, the Alliance established a robust empirical foundation through baseline surveys of 250 cold stores across Uttar Pradesh (150) and Haryana (100) in partnership with the respective Departments of Horticulture. These evidence-based insights directly shaped state policy pathways. In Haryana, the Alliance submitted a reviewed state-level modernisation draft scheme, while in Uttar Pradesh, stakeholder and high-level ministerial convenings paved the way for actionable next steps - finalising the SANKALP execution roadmap, constituting a formal drafting committee for state guidelines, and approving initial "Lighthouse" projects to drive the rollout of energy-efficient cold storage modernisation.

INDEE3: Sustainable Cooling and Heating in India

To accelerate India's transition toward net-zero cooling and climate-friendly cold chains, the Alliance is driving the adoption of ultra-low Global Warming Potential (GWP) natural refrigerants like R290 (propane) and CO_2 across industrial and transport systems. As part of the multiyear INDEE3 programme led by SINTEF Ocean, AEEE continued its applied research and field validations to address key technical, safety, and regulatory barriers. Implementation progressed from theoretical feasibility to real-world deployment, including executing an MoU with Ecozen Solutions to demonstrate R290-based micro cold rooms and entering advanced technical discussions with TransACNR to integrate natural refrigerants into vehicle refrigeration units. The initiative brings together technology innovators, domestic industry association (ISHRAE), premier academic institutions (IISc Bengaluru, IIT Madras, IIT Kharagpur, BITS Pilani), and global knowledge partners (SINTEF Ocean, NTNU Norway, and IIR), benefiting early-career engineers, refrigeration technicians, and cold-chain operators. To date, the programme has upskilled over 100 young professionals in handling flammable and high-pressure natural refrigerants while generating field evidence to inform national safety and efficiency benchmarks. This integrated approach of combining commercial pilot demonstrations with cross-border academic research establishes a scalable foundation to shape future global standards for sustainable cold-chain design.

Scaling Green Agri-focused Micro Cold Storage Solutions

As part of the multi-year SUGAM-CSS initiative, which began in 2023, supported by the India Climate Collaborative in partnership with cKinetics, AEEE continued to advance the adoption of decentralised, renewable energy-powered micro cold storage to reduce post-harvest losses and accelerate low-carbon agricultural cooling in rural India. As the policy linkage partner, the Alliance enabled the ecosystem by creating awareness about renewable energy-based cold rooms, which also got reflected in Maharashtra's State Action Plan on Climate Change, demonstrating policy-level mainstreaming of decentralised cooling solutions. The Alliance also supported farmers and Farmer Producer Organisations (FPOs) in navigating government schemes through a Standard Operating Procedure (SoP) handbook, technical guidance, and financing facilitation sessions with financial institutions. In parallel, the Alliance conducted capacity-building programs and site visits for banks and financial institutions to improve awareness and lending confidence for micro cold storage investments. By the end of 2025-26, the initiative had enabled nearly 50 renewable energy-powered micro cold storage installations across Maharashtra and Uttar Pradesh, establishing a scalable model that bridges policy, finance, and on-ground deployment for climate-resilient agricultural supply chains.

India Cold Chain Programme

Initiated in 2022 in collaboration with UNEP, the India Cold Chain Programme accelerates the adoption of energy-efficient, low-GWP cold-chain infrastructure aligned with ICAP and national targets to double farmers' income. Addressing severe post-harvest losses and infrastructure gaps in Haryana and Bihar, AEEE provided strategic technical and policy support to drive a transition toward integrated cold-chain ecosystems.

In Haryana, the programme supported the formal announcement of the state's Cold Chain Policy (2025–2047) in the 2026–27 Budget, establishing a roadmap for 1,700 packhouses projected to benefit up to 2.4 crore farmers and cut 6 million tCO2e annually. In Bihar, the programme embedded refrigeration into the state's climate roadmap and led the end-to-end design of Darbhanga's first Net-zero Energy Packhouse with Mithila Union, which will benefit up to 15,000 farmers while avoiding 410 MT of annual food loss. Nationally, the programme co-developed Packhouse Guidelines with BEE, which will create an actionable blueprint for climate-resilient agricultural infrastructure.

Decarbonising India's Cold Chain: The Energy and Transport Nexus

Farm-to-market logistics in rural India remain energy-intensive, loss-prone, and dependent on intermediaries. In Bihar, AEEE, with support from AVPN, advanced low-carbon agri-logistics by deploying electric carts with insulated cold boxes at Singhwara PVCS and Mithila Union, improving farmers' access to nearby markets and enabling cleaner produce transport while avoiding around 4.8 tCO_2 annually and reducing energy use by 85-90%. IoT-enabled monitoring systems and a digital dashboard at the Jitban packhouse strengthened temperature control, reduced food losses, and improved operational transparency, with electric reefer pilots in planning. The interventions brought together national commodity development bodies, export promotion councils, and state government to align on shared priorities. The electric-cart component is now proposed for integration into NCDC's existing Sahkar Innovation Scheme (up to INR 25 lakh grant per cooperative), positioning Singhwara as Bihar's first PVCS beneficiary, with 21 more cooperatives preparing proposals.

Enabling Sustainable Cooling for a Billion Lives

Our Goal

Facilitate India's thermal comfort needs by driving innovation, market transformation, and the widespread adoption of cutting-edge and energy-efficient space cooling technologies.

India's cooling challenge is intensifying. With aggregated cooling demand projected to increase eightfold by 2037-38 and room air conditioner stock set to grow from 90 million units to over a billion by 2050, accounting for over 20% of the global total, the country is entering a period of rapid, large-scale transition. This growth carries a direct environmental cost - room air conditioners and their refrigerants are among the fastest-growing sources of both electricity demand and high-GWP emissions. Record heat in 2025, rising Cooling Degree Days across urban centres, and growing recognition of thermal comfort as a public health imperative have moved sustainable cooling to the centre of India's climate and environment agenda. The India Cooling Action Plan (ICAP) provides the national framework; the pressing task is to translate it into policy instruments, market signals, and on-the-ground action at scale.

AEEE works at the intersection of policy, market readiness, and innovation to accelerate India's transition to environmentally responsible, energy-efficient cooling. The focus is on creating the enabling conditions for sustainable cooling to scale - strengthening regulatory and institutional frameworks, building the evidence base for district-level and decentralised solutions, fostering multi-stakeholder coalitions, and ensuring that thermal comfort reaches the communities and institutions most exposed to heat stress. In a year when subnational action on cooling moved up the policy agenda, the Alliance's work sought to bridge the gap between national ambition and local delivery.

Key Highlights

India's first 'National District Cooling Roadmap' launched.

70+ decision makers; 1,000+ professionals; 50+ unique organisations engaged across 20+ events on DCS spanning 13 states.

Policy influence across regulatory touchpoints: ECSBC, BIS code, Tamil Nadu, Rajkot, and Maharashtra.

Climate-resilient design interventions identified for PMAY homes across six (6) climatic zones.

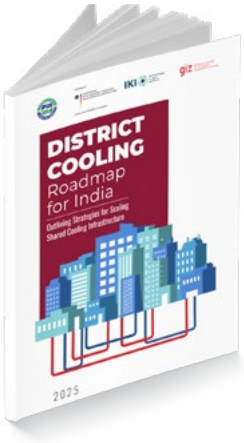
ICC Annual Conclave 2025 convened 150+ sectoral experts across government, industry, and academia.

Key Project and Activities

Energy Efficient Cooling (EE-Cool)

India's district cooling sector has long been held back by a combination of regulatory gaps, limited planner awareness, and the absence of bankable financial models suited to Indian city contexts. The EE-Cool programme, a bilateral initiative implemented by Deutsche Gesellschaft fur Internationale Zusammenarbeit (GIZ) GmbH on behalf of the German Federal Ministry for the Environment, Climate Action, Nature Conservation and Nuclear Safety (BMUKN), under the International Climate Initiative (IKI), in partnership with the BEE, addressed these barriers systematically over several years. AEEE served throughout as the Project Management Unit, leading all major research and knowledge outputs.

In 2025-26, the programme concluded with the development of the National District Cooling Roadmap, providing cities and utilities with a structured, evidence-based pathway for District Cooling System (DCS) adoption. Advanced implementation of the District Cooling Guidelines (2023) was supported through structured stakeholder trainings, and financial modelling tools, alongside innovative business models developed for Indian city contexts. Since the programme inception, DCS has gained attention and is increasingly being integrated in national and sub-national policies and plans. The programme strengthened the District Cooling ecosystem by supporting assessments of over 12 potential DCS sites and engaging over 20 active market players spanning utilities, developers, ESCOs, and technology providers. Its outreach extended across 13 states, engaging more than 1,000 professionals through 20 events, including training of over 70 senior government officials and bringing together more than 50 unique organisations to accelerate DCS adoption in India.



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Building Climate-Resilient and Low-Carbon Homes: One Room at a Time

India's affordable housing programme, the Pradhan Mantri Awas Yojana (PMAY) reaches millions of beneficiary-built homes - 26 million in the next phase, yet the design and construction guidance available to these households addresses climate resilience, thermal comfort, and energy performance insufficiently. This study, conducted for the Ministry of Rural Development and funded by the World Bank, was evidence-based and surveyed over 350 beneficiary-built homes across six cities representing diverse climatic and hazard conditions, including exposure to heatwaves, floods, cyclones, and earthquakes. Drawing on field surveys, stakeholder consultations, thermal and structural simulations, and cost-benefit analysis, the study identified gaps in climate-responsive design, technical support, and resilient construction practices, institutional processes, capacity and resources, and beneficiary funding mechanisms. It developed context-specific intervention packages combining disaster and heat resilience and energy-saving measures using locally available materials and construction systems, demonstrating that resilient and low-carbon housing improvements can deliver meaningful gains in occupant safety, indoor thermal comfort, and energy savings at an affordable cost. The evidence generated positions climate performance as a core criteria, and not just an add-on for self-built affordable homes in India, and provides the technical and policy grounding to mainstream this approach in future PMAY phases.

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India Cooling Coalition Phase VI

As Secretariat of the India Cooling Coalition (ICC), AEEE continued to support the coalition's work through its sixth phase. This phase was anchored by the theme 'From National Vision to Local Action: Integrating Subnational Action for India's Cooling Agenda,' and marked a significant step forward in the Coalition's evolution from a knowledge-sharing network to a platform for coordinated, member-driven action.

Building on the progress of the last phase, the second edition of the ICC Annual Conclave convened over 150 delegates, including policymakers, industry leaders, researchers, and civil society practitioners. The Conclave examined how state and city governments can build the institutional readiness, financing capacity, and technical workforce needed to act on ICAP's recommendations. Sessions were led by member organisations including CEEW, WRI India, ICLEI South Asia, ISHRAE, CLASP, RATA, CHAI, and AEEE. A closed-door Leaders' Roundtable brought together 15 senior leaders from 13 member organisations to develop strategic recommendations on subnational cooling action. The event received national media coverage, including from ET Energy World, The Tribune, and Outlook Planet.

Beyond the Conclave, this phase expanded its engagements and throught leadership through regional dialogue in Mumbai centred on Maharashtra's emerging role in sustainable cooling infrastructure; a side session at the RATA Conclave 2025 on cold storage modernisation; and a supporting role at the Global Heat and Cooling Forum in New Delhi.

The Coalition continued to spread awareness and understanding through its knowledge resources - monthly roundups; webinars covering passive cooling, youth careers in sustainability, and urban heat island mitigation; website and digital media channels. ICC's LinkedIn following grew by over 110% during the phase, and the Coalition launched a dedicated YouTube channel to house diverse knowledge resources

New member organisations joined the Coalition during Phase VI: Jana Urban Space Foundation, Aga Khan Agency for Habitat India, Indian Polyurethane Association, RMI India and Sustainable Energy for All, bringing total membership to 27 organisations.

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webinars and sessions

Catalysing Responsible and Sustainable Lifestyles Through Inclusive, People-Centric Energy Solutions

Our Goal

Facilitate a sustainable and inclusive energy transition through strategic demand-side interventions and smart mobility solutions

India's energy transition increasingly turns on the demand side. Transport accounts for approximately 12% of the country's energy-related CO_2 emissions, and with over 85% of crude oil imported, sustainable mobility systems are central to both decarbonisation and energy security. India recorded around 2 million electric vehicle (EV) sales in FY2024-25, yet adoption remains uneven across segments, and charging infrastructure remains nascent.

On the grid, peak demand is growing faster than energy requirement and is projected to exceed 335 GW by 2030, but for barely 88 hours a year. With 500 GW of non-fossil capacity committed by 2030, and only 80% of renewable energy generation available only 30% of the time, India cannot simply build its way out of this mismatch - demand itself must become a resource the grid can deploy.

AEEE works to make that shift both scalable and inclusive. It designs utility-scale demand flexibility programmes with distribution companies, regulators, and aggregators, and demonstrates people-centric, sustainable mobility solutions that link livelihoods, logistics, environmental protection, and low-carbon growth, advancing the Atmanirbhar Bharat vision. The goal is to establish demand-side flexibility and inclusive electric mobility as mainstream pillars of India's sustainable energy transition, not peripheral experiments. This work supports Mission LiFE (Lifestyle for Environment) - India's national call to embed pro-environment choices into everyday energy-use behaviour.

Key Highlights

Four (4) DISCOMs mobilised across Assam, Bihar and Odisha. 100 MW aggregator-led DF program accepted, broadening the pathway to 1 GW of national demand flexibility

Built the quantitative case for demand response-ready room ACs, 8-10 GW of avoidable peak demand and USD 12.8 billion in avoided grid investment by 2030

Deployed 20 electric two-wheelers for rural e-commerce deliveries in Telangana and trained 10+ women riders, linking clean mobility with livelihoods and gender-inclusive workforce participation

Launched a national study on residential EV charging, drawing on India's largest known charging dataset of 1 lakh+ installations across 10,000+ pin codes

Key Projects and Activities

Aggregator-led Demand Response Programme Design: A National Lighthouse Initiative

Demand-side flexibility remains the most underdeveloped of the grid's flexibility pillars, with no standardised market design, measurement protocol, or financing pipeline suited to Indian conditions. AEEE is leading a structured, aggregator-led Demand Response program designed in partnership with four lighthouse DISCOMs (APDCL- Assam, NBPDCL- North Bihar, SBPDCL- South Bihar, TPCODL- Odisha) - encompassing opportunity assessment, aggregator outreach, program design documentation, regulatory filings, and full program rollout. The initiative is explicitly designed to generate a replicable framework contributing to a national roadmap for 1 GW of demand flexibility. By anchoring this effort in real utility-level implementation, the Alliance is building the evidence base that will determine whether demand flexibility scales commercially across India's power sector.

Response-enabled Room Air Conditioners: A Call to Action on Scaling Demand

With 130-165 million room air conditioners (RACs) projected to be sold in India between 2025 and 2030, the Alliance identified the RAC market as the highest-leverage entry point for embedding demand response into the power system. Working with CLASP, AEEE benchmarked India's regulatory and manufacturing readiness against global standards and built the quantitative case for action - demand response-capable RACs could cut peak demand by 8-10 GW and avoid USD 12.8 billion in grid investment by 2030, at an incremental cost of USD 10-30 per unit. Through stakeholder engagement and consultations, and a published Call to Action targeting manufacturers, utilities, and investors, the Alliance is positioning India to move from demand response pilots towards a nationally mandated standard.

Battery Aadhaar: Developing an Enabling Ecosystem for Battery Circularity in India

AEEE, jointly with NRDC, examined how the absence of standardised battery data is holding back India's EV transition, where adoption remained at just 8.24% in FY 2025-26. Drawing on consultations with key stakeholders as OEMs, financiers, insurers and recyclers, the study found EV loans carry 10-30% lower loan-to-value ratios and up to 9% higher interest rates than ICE vehicles, while insurance premiums run 20-30% higher, largely due to unclear battery health data. The resulting report benchmarks India's draft Battery Pack Aadhaar system, a proposed digital ID and QR-code traceability framework for every battery, against the European Union's Battery Passport regulation, and recommends a dedicated nodal agency plus interim OEM-level data storage to build trust before full rollout. Aligning valuation standards could unlock financing, insurance and second-hand market growth while strengthening India's critical mineral security.

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Mapping Demand Flexibility Service Providers for India's Green Grid

AEEE mapped India's emerging demand-flexibility ecosystem, engaging with solution providers and aggregators to assess market readiness, business models, and regulatory gaps. The resulting issue brief provides a first-of-its-kind public resource of the service provider landscape, supporting utilities, regulators, and policymakers in shaping an enabling market for demand flexibility.

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Green Mobility for Rural E-commerce: Feasibility of Electric Two-wheelers

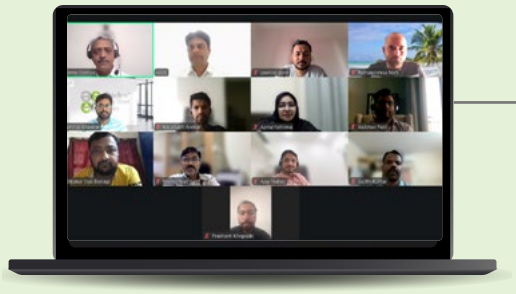
Rural delivery ecosystems are expanding rapidly, yet remain locked into petrol-based logistics. The Alliance implemented a rural e-mobility pilot in Telangana, deploying 20 electric two-wheelers for last-mile deliveries in Sangareddy and Warangal, in partnership with Hala Mobility (fleet operator, linked to Flipkart) and MOWO Social Initiatives Foundation, and assessed business models, driver economics, charging behaviour, and operational feasibility. Drivers reported significantly lower monthly running costs than petrol vehicles, and more than 10 women riders received structured driving training and livelihood onboarding support, underscoring the role of electric vehicles in financial inclusion and gender participation. The pilot generated critical insights on leasing affordability and charging access, signalling strong latent demand for women's mobility training in the region.

The Net-Zero Transition Starts at Home

AEEE, in collaboration with Kazam, launched a national study on residential EV charging based on India's largest known charging dataset, covering over 1 lakh installations across 10,000+ pin codes. The study finds that globally around 80% of daily EV charging demand is met at home, often at significantly lower cost than public charging, and highlights growing adoption in Tier-2 and Tier-3 cities. It identifies urgent policy needs around metering, safety, approvals, and grid readiness, reframing the agenda for residential electrical readiness as core infrastructure for India's net-zero mobility transition.

M&V Fundamentals and International Performance Measurement and Verification Protocol (IPMVP®) Online Training and the Performance Measurement and Verification Analyst (PMVA) Certification Programme

Effective energy savings measurement and verification (M&V) have emerged as essential prerequisites in various contexts, including the PAT programme, ECBC compliance, Standards and Labelling, DSM initiatives, BMS implementation, and the work of ESCOs. AEEE plays a pivotal role in providing comprehensive training on M&V Fundamentals and the globally recognised International Performance Measurement and Verification Protocol (IPMVP). This meticulously crafted online training and certification curriculum leads to the prestigious Performance Measurement and Verification Analyst (PMVA) certification accredited by the Efficiency Valuation Organisation (EVO). This certification not only acknowledges proficient energy efficiency practitioners but also fosters elevated benchmarks in the realm of (M&V).



2025-26

02 Certification Programmes

39 Professionals Trained

33 Organisations Engaged

The training encompasses a wide array of methodologies employed in the M&V of energy efficiency undertakings, including the renowned IPMVP framework. Tailored to cater to the needs of engineers, architects, economists, managers, energy auditors, specialists, financial and concerned practitioners, deeply involved in the design and implementation of energy efficiency initiatives, this programme provides a comprehensive understanding of the pivotal energy efficiency initiatives they oversee.

> The programme was exceptionally well-structured, informative, and highly relevant for professionals engaged in energy efficiency and energy management. It is an excellent learning experience that bridges the gap between theory and practical implementation while promoting global best practices in energy efficiency.
>
> **Dibakar Das Bairagi,**
> Manager, Project Delivery and R&D,
> Cenergist Energy Pvt Ltd

> Effective energy management depends on the ability to accurately measure, verify and sustain energy performance improvements. PMVA training equips energy professionals with the knowledge and practical skills to establish reliable baselines, develop sound M&V plans, analyse energy data, quantify savings with confidence, and communicate results credibly.
>
> **Sandeep Dahiya,**
> PMVA Instructor

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Market Creation for Energy-Efficient Technologies and Services

Our Goal

To enhance productivity and facilitate a sustainable energy transition for MSMEs by creating a robust market for energy-efficient technologies and services.

The market for energy-efficient technologies now spans every major end-use sector, from household and commercial appliances. Over the past decade, initiatives such as the Standards & Labelling Programme, UJALA, the Perform, Achieve and Trade (PAT) scheme, and the BEE's ADEETIE programme have accelerated the adoption of energy-efficient technologies and demonstrated their economic value and environmental preservation. The policy landscape continues to strengthen, with 25 states identifying MSME clusters as priority intervention areas under the SEEI 2025 framework, while NITI Aayog's Roadmap for Green Transition of MSMEs identifies energy efficiency as the most immediate and economically viable pathway for industrial decarbonisation. However, significant opportunities remain untapped, particularly across MSMEs, public infrastructure, and industrial supply chains, where fragmented markets, limited access to finance, inadequate technical capacity, and information gaps continue to slow adoption. At the same time, global developments such as the EU's Carbon Border Adjustment Mechanism (CBAM) are making investments in energy efficiency increasingly critical for improving competitiveness, strengthening resilience, and maintaining access to international markets. For India's most energy-intensive MSME clusters, this transition also delivers a direct environmental dividend by cutting fuel use and local pollution at the source.

AEEE's approach to market creation is grounded in the recognition that technology adoption requires awareness, institutional anchoring, credible financing routes, demonstrated performance, and an enabling policy environment. Across MSME clusters, public infrastructure, and materials supply chains, the Alliance works to put each of these elements in place - building the evidence base, convening buyers and suppliers, supporting the design of replicable business models, and engaging policymakers at the national and sub-national levels. The goal is to create conditions under which environmentally sound and energy-efficient technologies become the default economic choice.

Key Highlights

- **500+ stakeholders reached through awareness and capacity building activities in Uttar Pradesh across brick kiln and brass MSME clusters.**
- **Four (4) direct technology demonstrations and technical interventions.**
- **Over 60 MSME units adopted through awareness programmes and matchmaking between MSME units and technology suppliers.**
- **Demand pipeline of 7.5 lakh+ energy-efficient fans generated across institutions in Lucknow, Varanasi, Delhi, and Pune.**
- **New investment of ~INR 60 lakhs mobilised for energy-efficient technology adoption in MSME clusters.**

Key Projects and Activities

Catalysing Energy-efficient Technology Adoption in MSME Clusters

The brick kiln and brass MSME clusters of Uttar Pradesh are among India's most energy-intensive industrial ecosystems, and among the least supported. The Alliance drove market transformation in these clusters through a combination of institutional partnerships, on-the-ground technical assistance, and structured knowledge outputs. A survey of 150 brick kilns in eastern Uttar Pradesh established the baseline for cluster-level planning, and the findings were published in a bilingual cluster report accessible to local stakeholders. SOPs were developed for brick cluster operational efficiency, and structured training was delivered to over 120 firemen and plant operators, improving fuel efficiency, operational practices, and brick quality.

An MoU was signed with the INT Nirmata Parishad, enabling early stakeholder alignment on the adoption of Zig Zag technology. The efficient Zig Zag kiln standards have now reached 30-plus districts, with fresh demand for brick-kiln modernisation from new units and districts and central and state institutions moving in behind the transition. In the Moradabad brass cluster, the full demonstration cycle of an energy-efficient furnace was completed under an ESCO model, validating zero-CAPEX adoption, achieving 20-25% energy savings, and confirming the repayment mechanics that would enable replicability at scale. Technology adoption was catalysed in over 60 MSME units across both clusters, contributing to an estimated reduction of approximately 9,000 tonnes of CO_2 per annum and mobilising new investment of around INR 3.5 crore, establishing a framework for scaling clean technology adoption across MSME clusters.

Energy-efficient Fans Programme

The Energy-efficient Fans Programme, implemented with support from CLASP, catalyses large-scale adoption of super-efficient ceiling fans through demand aggregation and targeted market facilitation. The Alliance convened buyer–seller engagement events across Lucknow, Varanasi, Delhi, and Pune, connecting institutional buyers from educational institutions, healthcare facilities, and government departments with leading energy-efficient fan manufacturers. These engagements created an estimated demand pipeline of over 7.5 lakh energy-efficient fans, with institutions indicating replacement demand of 25-50% of existing stock. The programme addressed barriers, including low awareness of lifecycle cost benefits, gaps in technical specifications, and procurement constraints, resulting in pilot deployments, proposal submissions, and the inclusion of energy-efficient fans in public agency infrastructure plans.

Energy Efficiency in Public Infrastructure: The Accelerating Sustainable Solutions for Energy Transition (ASSET) Programme

The ASSET Programme of NITI Aayog, supported by the Asian Development Bank (ADB), addresses one of the most persistent barriers to scaling energy efficiency in public infrastructure - the gap between demonstrated technical potential and bankable, implementable projects. Working with urban local bodies in Maharashtra, Delhi, and Uttar Pradesh, the Alliance conducted rapid energy assessments of municipal buildings and water pumping systems to identify and quantify energy-saving opportunities, then undertook technical and financial analysis to evaluate project viability, prioritise high-impact interventions, and develop bankable project structures. States and urban local bodies were shortlisted based on urban scale, energy-saving potential, and implementation readiness, enabling the programme to focus resources where the likelihood of replication and scale is strongest. ASSET aims to provide a structured, programmatic framework for moving India's public sector away from fragmented pilots and towards scalable, bankable energy efficiency investments capable of attracting institutional finance.

Strengthening Measurement and Verification under the ADEETIE Scheme

Recognising that credible M&V is fundamental to the success of any financing programme, the Alliance has been supporting BEE in strengthening the technical framework of the ADEETIE scheme. To support the implementation of the scheme, AEEE provided technical support to BEE by developing the M&V Guidelines, along with standardised calculation tools and reporting templates to ensure consistent, transparent, and credible verification of energy savings across projects. The Alliance also conducted capacity-building programmes for empanelled auditors, equipping them with the practical knowledge needed to conduct M&V assessments and to use the tools developed under the scheme effectively. In parallel, the Alliance serves as a member of the ADEETIE Technical Committee, where it supports the technical review of projects, evaluates verified energy savings, and contributes to recommendations for finalising the projects. By combining technical expertise with institutional oversight, the Alliance is helping strengthen the credibility and governance of the ADEETIE scheme, building confidence among industries, financial institutions, and policymakers, and creating a robust foundation for scaling the adoption of energy-efficient technologies across Indian industry.

FORUM ON ENERGY EFFICIENCY & DECARBONISATION 2026

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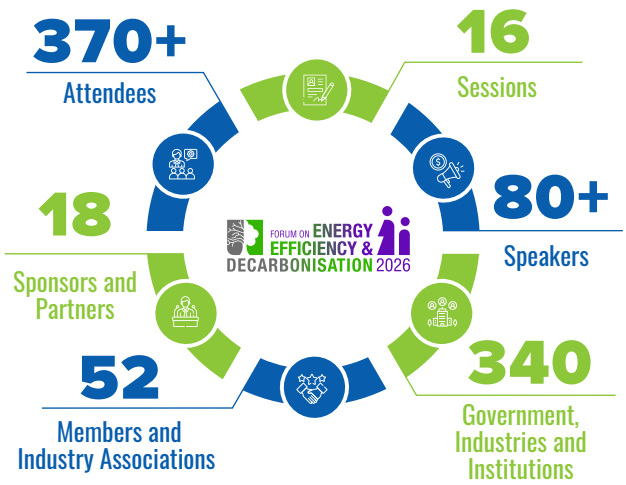
Energy Efficiency as the Engine of Viksit Bharat

3-4 February 2025

AEEE organised the sixth edition of the Forum on Energy Efficiency and Decarbonisation (FEED) - a flagship platform driving dialogue and action on energy efficiency and climate resilience. Building on FEED 2025, this edition, themed "Energy Efficiency as the Engine of Viksit Bharat," highlights India's transition from intention to implementation to impact. FEED 2026 explored how efficiency can power India's vision for competitiveness, environmental preservation, climate resilience, and inclusive prosperity, aligning with the national goal of Viksit Bharat 2047 and the ambition to double energy efficiency improvement by 2030.



Thematic Areas

- Implementing a systems approach to energy efficiency
- Adoption of innovative energy-efficient technologies
- Integration of energy efficiency and demand flexibility
- Driving sub-national initiatives for energy efficiency
- Advancing low-carbon building solutions
- Ensuring thermal comfort for all
- Sustainable cold chain for agriculture
- Promoting energy efficiency as a service
- Facilitating financing for energy efficiency projects
- Monitoring and assessing progress and impact of energy efficiency efforts

Suggested Strategic Interventions

India's pathway to Viksit Bharat requires positioning energy efficiency as a strategic national resource to manage the projected 2.1× growth in energy demand by 2047. This will require an annual ~4% improvement in energy intensity, twice the global average, through a shift from incremental interventions to systemic transformation.

Strategic interventions suggested for advancing energy efficiency in India include:

Pillar I: Embedding System-Level Transformation and Institutional Capacity

Transitioning from Component-Level to System-Level Efficiency

India must shift from component-level gains to system-level efficiency, where the biggest value lies. A systems approach can reduce both OPEX and CAPEX by optimising demand, avoiding excess infrastructure, and improving performance. Embedding lifecycle design, digitalisation, and efficiency into planning and markets will position energy efficiency as core economic infrastructure, unlocking fiscal space, boosting productivity, and strengthening resilience.

Institutionalising State Agency Autonomy and Financial Independence

Strengthening sub-national implementation will be critical. SDAs must evolve into independent, financially empowered entities with dedicated energy efficiency mandates and resources. Redirecting non-compliance penalties to state-level funds can create sustained budget lines, incentivise enforcement, and improve accountability. This shift enables states to play a more proactive role in achieving national energy savings and industrial competitiveness targets.

Pillar II: Enabling Markets and Finance for Scaled Efficiency

Activating Carbon Markets and Climate Finance for Energy Efficiency

To unlock India's large untapped emissions-reduction potential, carbon markets should be used to develop and scale energy efficiency projects under offset mechanisms. This will require addressing key barriers, such as aggregating smaller projects; robust Measurement, Reporting, and Verification systems; and improved access to finance, so that dispersed efficiency gains can be converted into credible and bankable carbon assets. A programmatic approach can help deepen the pipeline of offset projects, expand credit supply, and channel private capital into cost-effective decarbonisation.

Making Public Sector Efficiency Finance-Ready

Public sector efficiency must transition to performance-linked financing models. Ring-fenced savings, escrow mechanisms, and standardised M&V frameworks can improve bankability and attract private participation. This will help reduce risk, enable scale, and position efficiency as an investable infrastructure asset.

Pillar III: Leveraging Digital Infrastructure and Outcome-Based Models for Industrial Decarbonisation

India must shift from intent-based, asset-led approaches to data-driven, performance-based decarbonisation. Digital infrastructure, such as benchmarking, mandatory disclosures, interoperable systems, and open standards, can enable continuous monitoring, accountability, and optimisation at scale. Coupled with this, moving from upfront CAPEX to performance-based service models such as Cooling-as-a-Service, enabled by robust M&V frameworks and digital platforms, can unlock investment and improve efficiency outcomes. Scaling demand aggregation, standardised contracts, and integrated procurement will be key to mainstreaming these models and delivering measurable efficiency and lifecycle cost gains.

Pillar IV: Enabling Technology and Policy Frameworks for Sustainable Cooling and Cold-Chain Systems

Greening Cooling Systems

Meeting rising cooling demand requires a dual transition to high-efficiency technologies and low-GWP refrigerants. Scaling up the use of natural refrigerants, strengthening safety standards, and institutionalising lifecycle refrigerant management will be key to avoiding efficiency and emissions lock-in. Coordinated action across industry, skilling, manufacturing, and finance can position cooling as a high-impact climate lever.

Standardising Sustainable Cold-Chains

Developing viable cold-chains will require an integrated system design that follows the principles of 'lean-mean-green-seen' and combines efficient technologies, renewable energy, and digital monitoring. Policy support, capacity building, and performance tracking can enable scalable, climate-aligned cold-chain infrastructure, reducing losses while improving energy productivity.

Pillar V: Enabling Data-Driven, Performance-Led and Integrated Built Environment

Data-Driven and Performance-Based Urban Transformation

India must move from compliance-led approaches to integrated, data-driven urban systems. Leveraging shared data platforms, IoT-enabled monitoring, and AI-driven analytics can enable real-time optimisation, risk-informed decision-making, and stronger coordination across agencies. Embedding performance-based, KPI-driven certification frameworks will shift the focus from static compliance to continuous accountability, ensuring that buildings and urban systems deliver measurable efficiency, decarbonisation, and resilience outcomes at scale.

Climate-Resilient Affordable Housing

Affordable housing must integrate climate resilience and thermal comfort through passive design strategies embedded in building codes. Scaling this requires workforce skilling, localised supply chains, and simplified implementation guidelines. This approach ensures long-term sustainability while maintaining cost efficiency at scale.

Mandating Residential Charging as Essential Urban Infrastructure

Electric mobility adoption depends on access to reliable charging infrastructure. Mandating residential charging as a standard provision across urban and rural developments will align housing and electricity systems. This ensures equitable EV adoption, especially in the 2-wheeler and 3-wheeler segments, while reducing logistics costs and improving workforce mobility.

Pillar VI: Building the Ecosystem for Innovation, Skills and Change

India must strengthen both the innovation pipeline and societal adoption to accelerate the energy transition. Establishing industry-backed validation platforms for climate technologies can enable real-world testing, reduce deployment risks, and improve solution reliability, while strengthening domestic supply chains and advancing technological self-reliance. At the same time, embedding sustainability within cultural narratives and youth engagement is critical to driving adoption. Positioning efficiency as aspirational, linked to skills, careers, and innovation, can shift mindsets from sacrifice to opportunity, building a future-ready workforce where efficiency becomes a default capability.

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to view the website

India's rapid urbanisation and expanding building stock make the next generation of built environment professionals critical to the country's climate transition. SDI, formerly Solar Decathlon India, responds to this opportunity by equipping undergraduate and postgraduate students to apply net-zero design principles to real-world building projects. Through an annual, hands-on challenge, students work alongside academic mentors and real estate partners to develop solutions that combine energy efficiency, environmental preservation, climate resilience, affordability, and occupant well-being.

Since its inception in 2020, SDI has evolved into the world's largest net-zero building challenge, creating a growing pipeline of climate-ready professionals. Over five years, more than 10,600 students from 300 colleges across 25 states and 70 cities have worked on approximately 173 million square feet of building projects for over 280 real estate partners. Its influence extends beyond the competition - more than 35% of participating institutions have integrated SDI into their academic curricula, strengthening climate-responsive design education at scale. With women comprising nearly half of all participants, SDI is also helping build a more diverse and inclusive generation of professionals equipped to shape India's low-carbon built environment.

SDI 2025 Finals

The fifth edition of SDI culminated in a vibrant showcase of innovation and collaboration. More than 2,100 students representing over 150 academic institutions developed solutions for 34 live building projects and seven product innovations, addressing net-zero energy, water efficiency and climate resilience in India's building sector.

The six divisional winners presented their projects before a distinguished grand jury comprising leaders from the real estate sector, industry and media. The finals, hosted at the Infosys campus in Mysuru, one of the world's most sustainably operated campuses, brought together students, academia, industry experts, policymakers and building-sector stakeholders to celebrate emerging climate solutions and the next generation of sustainable design leaders.

Grand Winner: Team Anvaya from BMS College of Architecture, Design and Planning and B M S College of Engineering won the Grand Prize for their solution of construction worker housing with modular systems at very affordable costs.

Keynote Address by Ashish Goel, Director and CEO, OctoLife

Aromar Revi, Vice-Chancellor, IIHS (Institution Deemed to be) University and Founding Director, IIHS and Satish Kumar, President and Executive Director, AEEE

SDI Climate Smart Innovation Award 2025

Held alongside the SDI Finals 2025, the third edition of the Climate Smart Innovation Exhibition and Award highlighted breakthrough technologies and solutions that can accelerate decarbonisation in the built environment. 40 innovators participated in the competition, with the top ten finalists presenting their solutions before an expert jury. The exhibition provided an important platform for innovators, industry and academia to connect and showcase practical technologies capable of addressing India's climate and building-sector challenges.

Winner, Climate Smart Innovation Award 2025: Lambert Technovation Pvt Ltd

SDI 6.0 (2025-26)

Building on the momentum of previous editions, SDI 6.0 continued to drive excellence in innovation across five building divisions and a dedicated product division focused on residential cooling retrofits. The building divisions addressed a diverse range of real-world challenges, including housing, commercial buildings, educational facilities, worker accommodation, and disaster-resilient community shelters, while the product division focused on affordable residential cooling retrofit solutions that homeowners and local technicians can easily install. By promoting practical, market-ready interventions, SDI continues to enable communities to adapt to rising temperatures while improving energy efficiency.

All participating students and faculty mentors were equipped to conduct building performance simulations and test their design ideas, thereby strengthening the innovation pipeline for India's net-zero building transition. Finalist teams will receive prototype development scholarships to help translate promising concepts into scalable, deployable solutions. SDI also conducted two FDPs, attended by around 70 faculty members from institutions across India. The four-day programmes familiarised faculty with the SDI jury's expectations and students' experiences, enabling them to better mentor their teams in developing practical, implementable net-zero building solutions.

SDI is conducted by AEEE and the Indian Institute for Human Settlements.

energise

Lifestyle, Energy Efficiency, and Climate Action

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Energise, AEEE's international biennial research conference, convenes researchers, practitioners, policymakers, and innovators on a shared platform for knowledge exchange and action on energy efficiency, environmental preservation, decarbonisation, and climate resilience. By subjecting research to rigorous peer review and placing it in direct dialogue with implementation experience, Energise has grown into one of the country's most significant research-focused conferences, moving evidence from the laboratory and the field into policy and practice.

Energise 2025

Energise 2025 focused on accelerating climate action in India's rapidly expanding built environment, where decisions made today will shape energy demand, emissions, and climate resilience for decades. Aligned with the Viksit Bharat vision and the LiFE movement, the fourth edition bridged research, policy, and practice, creating a rigorous yet collaborative space where technical knowledge met innovation and emerging technologies were interrogated alongside questions of equity and market transformation.

Hosted by AEEE in collaboration with the CEPT Research and Development Foundation (CRDF), the Indian Institute of Technology Delhi, and the Indian Institute for Human Settlements (IIHS), the conference was held over 6-8 November 2025 in a fully residential format at Asia Plateau, Panchgani, Maharashtra. The deliberate pairing of peer-reviewed research with practitioner case studies ensured that every theme was examined from both sides of the implementation divide, with academic rigour tested against field experience, and field experience given scholarly scrutiny.

By connecting a national community of researchers and practitioners to the policy and market questions that will define India's built environment transition, Energise 2025 strengthened the pipeline through which evidence shapes action, laying the groundwork for research to move more quickly from publication to policy to practice.

Resilient and Adaptive Built Environments

Reimagine, Redesign, Renew: Policy, Governance, and Market Transformation

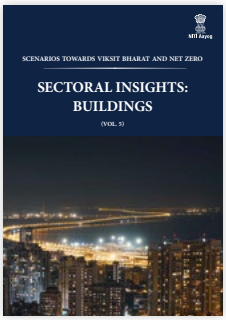
Shaping Tomorrow: Emerging Technologies for a Sustainable Future

4th Edition	**3** Thematic Tracks
240 Abstract Submissions	**3** Days, Fully Residential
80+ Co-Chairs, Panel Leaders and Technical Reviewers	**15** Partners and Supportors
80 Peer-Reviewed Papers	**25** Speakers
25 Practitioner Case Studies	**200+** Delegates

A Sustainable Setting: Asia Plateau, Panchgani

The choice of venue for Energise 2025 was itself a statement of intent. Asia Plateau, a residential campus set amid the Sahyadri hills of Panchgani, Maharashtra, operates on long-standing principles of environmental stewardship, offering delegates a lived demonstration of the values the conference sought to advance. The residential format did quiet but important work - with researchers, students, sectoral experts, industry practitioners and policymakers sharing the same campus for three days, conversations begun in technical sessions continued over meals and hillside walks, and the boundaries between disciplines, institutions, and hierarchies softened. In stepping away from the urban cities, Energise 2025 created the conditions it was arguing for - a low-footprint, high-trust environment in which cross-disciplinary collaboration became the default rather than the exception.

Key Publications



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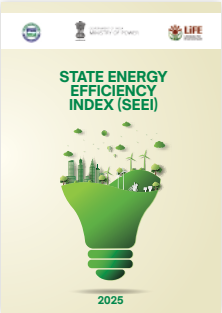
Scenarios Towards Viksit Bharat and Net-Zero Sectoral Insights: Buildings

Developed as part of NITI Aayog's Study Reports on Scenarios towards Viksit Bharat and Net-Zero, the Sectoral Insights: Buildings report presents a roadmap for decarbonising India's buildings sector as part of the national transition across the power, industry, transport, agriculture, waste, and social sectors. The report highlights how decarbonising buildings is not only about reducing emissions but also about building a resilient, competitive, and future-ready economy that delivers comfort, productivity, and sustainable growth at scale.

State Energy Efficiency Index 2025

The State Energy Efficiency Index (SEEI), a flagship initiative of BEE in collaboration with AEEE, is a comprehensive framework for benchmarking energy efficiency across Indian states and UTs. Since its launch in 2018, it has evolved into a strategic governance tool that strengthens state-level data systems, enables consistent tracking of energy use, and supports data-driven decision-making through peer learning and constructive competition. In its seventh edition, SEEI 2025 highlights leading state-level innovations while offering actionable insights to accelerate policy adoption, implementation, and performance tracking across India.



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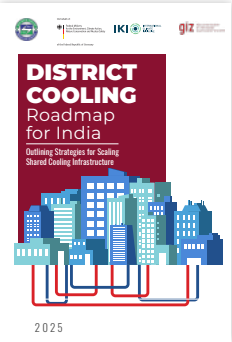

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District Cooling Roadmap for India: Outlining Strategies for Scaling Shared Cooling Infrastructure

India's cooling demand is set to grow exponentially, with major implications for energy systems, urban resilience, and climate commitments. The report presents a clear, actionable pathway to meet this demand through shared, energy-efficient cooling infrastructure. Drawing on Indian and global best practices, the report outlines enabling policies, business model frameworks, financing pathways, and a phased implementation plan to scale district cooling nationwide. Designed for policymakers, urban planners, developers, utilities, and investors, this roadmap serves as a practical guide to unlocking sustainable, affordable, and climate-aligned cooling for India's cities.

Advancing Resource-Efficient Growth of India's Data Centre

India's data centre sector is fast becoming a critical pillar of the digital economy, with installed capacity projected to reach 8 GW by 2030 as AI-driven demand accelerates. This rapid expansion brings a new set of sustainability challenges, with cooling systems accounting for roughly 30–40% of a facility's total energy use. This brief examines how targeted interventions, including the adoption of advanced, climate-appropriate cooling technologies, mandatory performance disclosure, and better alignment of incentives, can unlock significant efficiency gains.

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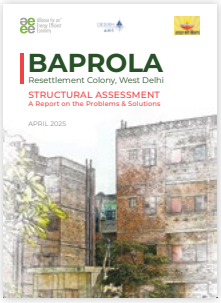

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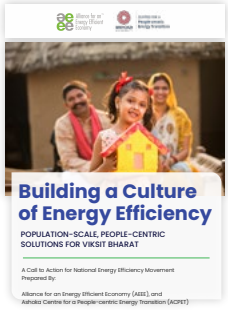
Baprola Resettlement Colony, West Delhi: A Report on the Problems and Solutions

This report presents the findings of a structural and design assessment of the Baprola EWS Housing Colony in Delhi. Drawing from on-site inspections and technical analysis, the report highlights how design limitations, construction quality concerns, and insufficient resilience planning have impacted the safety, durability, and long-term value of these homes. It offers actionable recommendations to enhance structural performance, improve material selection, and strengthen project monitoring and performance, providing a repair pathway for Baprola and valuable lessons for future affordable housing developments.

Building a Culture of Energy Efficiency: Population-Scale, People-Centric Solutions for Viksit Bharat

This brief is a call to action for placing energy efficiency at the core of India's development pathway. It highlights how simple, scalable citizen actions can complement supply-side efforts, reducing energy demand, lowering costs, and improving grid reliability. The brief identifies five key actions, from optimal AC usage to efficient water and appliance practices, that can deliver significant peak demand reduction and household savings at scale. It also outlines actionable recommendations for policymakers, regulators, and utilities to enable a nationwide energy efficiency movement through targeted incentives, behavioural nudges, and data-driven strategies.



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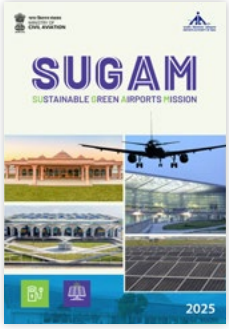

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SUGAM: Sustainable Green Airports Mission

The second edition of SUGAM report highlights efforts across India's aviation ecosystem to embed sustainability in airport operations. It documents initiatives by Airports Authority of India-managed and PPP airports in renewable energy, energy efficiency, and sustainable infrastructure development, and presents benchmarking insights on energy use and emissions. SUGAM serves as a knowledge-sharing platform to support airports in their transition towards net-zero emissions and environmentally responsible aviation infrastructure while strengthening collective climate action commitments.

Technologies for Net-Zero Airports: A Blueprint for Sustainable Aviation Infrastructure

This report is a compendium that outlines a strategic roadmap for transitioning energy-intensive airport facilities into sustainable, climate-resilient, and smart hubs. It outlines a structured, phased roadmap focused on three primary operational domains, Airside, Terminal-side, and Landside, to sequence the implementation of advanced technologies such as Sustainable Aviation Fuel (SAF), automated baggage handling, and radiant cooling. By analysing global and domestic case studies, it demonstrates how strategic investments in energy efficiency can deliver simultaneous operational, financial, and environmental benefits.

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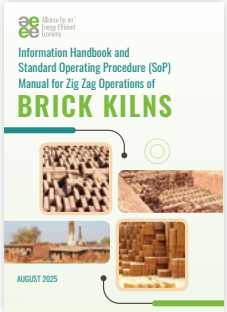

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Information Handbook and Standard Operating Procedure (SOP) Manual for Zig Zag Operations of Brick Kilns

This manual serves as a practical resource for kiln owners and operators adopting Zig Zag technology, drawing on field insights from Uttar Pradesh. It provides step-by-step Standard Operating Procedures covering brick setting, fuel management, airflow control, and performance monitoring. By enabling consistent and efficient kiln operations, this technology can deliver 20-30% fuel savings, improve brick quality, and enhance profitability while reducing emissions and supporting a more sustainable sector.

Survey Report on Technology Adoption and Baseline Operational Practices of Brick Kilns in East UP Clusters

As cleaner kiln technologies gain traction, understanding on-ground adoption and performance is essential to scale impact. This report presents insights from a field survey of over 150 brick kilns across Ghazipur, Lucknow, and Varanasi, assessing technology uptake, operational practices, and efficiency outcomes. The analysis highlights strong adoption of Zig Zag technology in Lucknow and Varanasi while identifying gaps in Ghazipur. It offers a clear roadmap for improving kiln performance, reducing emissions, and strengthening the sector's transition through targeted interventions and policy support.

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Battery Pack Aadhaar

IIndia's transition to electric mobility is central to its broader decarbonisation and energy security goals. Yet, despite strong policy support and growing market momentum, structural barriers continue to constrain EV adoption, with battery-related uncertainties emerging as a key challenge. Accounting for a significant share of vehicle costs, batteries determine performance, safety, resale value, and end-of-life potential, making transparent and standardised battery data critical to building trust across the ecosystem. This report identifies the key barriers to battery circularity and proposes evidence-based recommendations to strengthen the ecosystem.

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Micro Cold Storage Schemes: A User-Friendly SOP Guide

Government schemes exist to support micro cold storage and agri-cold chain development, but navigating their processes and requirements can be challenging for farmers and small entrepreneurs. This comprehensive SOP handbook provides clear guidance on these schemes and operational processes for agri-focused micro cold storage solutions. It serves as a practical reference for farmers, entrepreneurs, and institutions, offering step-by-step guidance to streamline subsidy applications, implement sustainable cold chain practices, and improve post-harvest management.

Enabling Cold-Chain Infrastructure Development in India: Evolution and Assessment of Policies and Institutional Mapping

The report presents a comprehensive review of the country's cold-chain ecosystem, tracing its policy evolution, institutional architecture, and implementation pathways. It analyses how India's Five-Year Plans, national missions, and key government programmes have shaped the development of cold-chain infrastructure, from early warehousing initiatives to modern, integrated supply chains designed to reduce post-harvest losses and enhance farmer incomes. It highlights how strengthening this infrastructure can promote energy efficiency, lower environmental impact, and advance the goals outlined in the India Cooling Action Plan (ICAP).

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Cold Rooms as an Enabler to Boost Farmer Incomes

Drawing on AEEE's on-ground support to farmer collectives, this case study captures key observations and learnings from the deployment of energy-efficient solar cold rooms in two regions of India. Based on implementation with Sahaja Samrudha Organic Produce Company Limited (SSOPCL) in Karnataka and Singhwara Primary Vegetable Cooperative Society (PVCS) in Bihar, it demonstrates how access to appropriate cold-chain infrastructure can improve market access, strengthen farmer incomes, and enhance the business viability of FPOs. It offers practical insights for organisations seeking to scale sustainable cold-chain solutions across India.

Green Mobility for Rural E-Commerce: Feasibility of Electric Two-wheelers in Last-Mile Logistics

As e-commerce rapidly expands into rural India, the last mile is emerging as a critical test of cost, sustainability, and inclusion. This report examines the transformative potential of electric two-wheelers (E2Ws) in rural last-mile delivery, assessing their acceptability, feasibility, and long-term viability. It shows how E2Ws can offer a compelling alternative to conventional vehicles by delivering lower operating and maintenance costs, reducing emissions, and generating wider socio-economic benefits, including employment opportunities and improved gender inclusion in the logistics sector.

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Key Partnerships and MoUs

All India Discoms Association (AIDA)
AEEE signed an MoU with the AIDA to strengthen collaboration, drive technological advancement, and advance demand flexibility for the holistic growth of India's power distribution sector.

Council of Architecture (CoA)
AEEE signed an MoU with the CoA to expand the reach of the SDI Challenge and advance climate-aligned building design, decarbonisation, and architectural education through joint initiatives

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Council of Philanthropies for Climate Action (CPCA)
AEEE signed an MoU with the CPCA to support HCL ClimaForce Fund, advancing collaborative climate action and sustainable development initiatives.

FSR Global
AEEE signed an MoU with FSR Global to collaborate on energy transition through policy dialogue, capacity building, technical assistance, joint research, and knowledge exchange.

Int Nirmata Parishad, Varanasi
AEEE signed an MoU with Int Nirmata Parishad, Varanasi, to advance energy-efficient and low-carbon brick kiln technologies through knowledge sharing, capacity building, and on-ground support for MSMEs.

Net Zero Energy Transition Association (NETRA)
AEEE signed an MoU with the NETRA to develop initiatives and market transformation strategies that advance energy efficiency, environmental protection, and sustainable development.

Pune Municipal Corporation (PMC)
AEEE signed an MoU with the PMC to accelerate decarbonisation and reduce emissions intensity across urban infrastructure. The partnership aims to develop a deep energy efficiency retrofit programme for existing municipal infrastructure.

State Climate Action Cell, Government of Maharashtra
AEEE signed an MoU with the State Climate Action Cell, Government of Maharashtra, to support the implementation of the State Action Plan on Climate Change and accelerate energy-efficient, low-carbon development.

Tamil Nadu Electricity Board (TNEB Ltd)
AEEE signed an MoU with the TNEB Ltd to strengthen institutional capacity and advance appliance, industrial, and state-level energy efficiency initiatives, in collaboration with CLASP and CSIS.

Uttar Pradesh New and Renewable Energy Development Agency (UPNEDA)
AEEE signed an MoU with the UPNEDA to support state-wide energy efficiency initiatives, clean energy adoption, and the implementation of the State Energy Efficiency Action Plan.

Energy Enablers

AEEE serves as a dynamic platform, bringing together key energy stakeholders – industry leaders, government officials, civil society organisations, think tanks, and professionals. Our goal is to facilitate constructive dialogue, influence the development of effective, impact-oriented policies, environmental preservation, and build a robust ecosystem for a sustainable energy transition.

Our Members

AEEE's membership network has grown to **80** organisations representing the breadth of India's energy efficiency ecosystem across buildings, industry, cooling and refrigeration, transport, and power distribution. Bringing together technology leaders, manufacturers, utilities, research institutions, consultants, and energy end-users, our members collectively drive innovation to support India's environmental preservation and advance energy transition.

This year marked the launch of a strategic refresh of AEEE's membership ecosystem. Guided by extensive member consultations, the Alliance is strengthening collaboration, deepening industry engagement, and creating greater value through a more connected and responsive membership platform. Built on the principles of participation and co-creation, the Alliance engages members through collaborative research, industry working groups, policy dialogue, knowledge exchange, and strategic events, fostering stronger networks, amplifying collective impact, and enabling the members to shape the future of energy efficiency in India.

Premium Members

Large Members

General Members

Associate Members

Governing Body of AEEE

Management Committee

Chairperson
Venkat Garimella

Vice Chair
Sanjiv Bhatia

Treasurer
Upendra Bhatt

SUB-COMMITTEES

Finance and Audit
Upendra Bhatt

HR and Compensation
Sanjiv Bhatia

Programmes and Projects
Vishal Garg

President and Executive Director
Satish Kumar

Executive Council Members

(as on 31 March 2026)

Abhishek Ranjan
BSES Rajdhani Power Limited

Poorva Ujwal Keskar
VK:e Environmental

Samit Jain
Pluss Advanced Technologies

Sanjiv Bhatia
STENUM Asia

Satish Kumar
Alliance for an Energy Efficient Economy

Upendra Bhatt
cKinetics Consulting Services Pvt Ltd

Usha Subramaniam
Grundfos Pumps India Pvt Ltd

Venkat Garimella
Schneider Electric

Venkatesh Balasubramanian
Thermax Limited

Vishal Garg
Plaksha University

Zubin Varghese
Trane Technologies

Thought Leadership and Media Mentions

Why refrigerant transition matters

Santosh Kumar Saini, Prosenjit Singha

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India's EV charging push faces ground-level hurdles, home charging must be seen as key solution

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Energy efficiency must anchor India's decarbonisation push as demand surges

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AEEE's FEED 2026 positions energy efficiency as the core driver of india's decarbonisation journey

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Power sector: How demand response can help maintain grid stability cost-effectively

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Farmers' incomes will rise! Banana, mango and makhana to be exported abroad from Bihta

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Strategic pathways to efficient, low-carbon HVAC

Santosh Kumar Saini, Prosenjit Singha

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The case for energy efficiency

Satish Kumar

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Why MSMEs need market-based mechanisms to lead India's clean energy transition

Pramod Kumar Singh

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EVs in India to get pedestrian warning system or AVAS from october 2026. How it works

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Closing healthcare gaps without worsening pollution: Why new ambulances must be electric

Anmol Jain, Md Saddam Hussain

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Cooling India smartly: Why energy-efficient fans deserve policy spotlight

Pramod Kumar Singh, Rohan Kadamb

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A green mobility push through 'Battery Aadhaar'

Anmol Jain

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Maharashtra, AEEE announce strategic MoU to accelerate sustainable cooling and climate action

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Initiative for modernisation of cold storage in Uttar Pradesh

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Workshop in Varanasi for greener, energy-efficient brick kilns in Uttar Pradesh

ऊर्जा आधारित भट्ठों से संवरेगा ईंट उद्योग

वाराणसी। ईंट निर्माता परिषद और एलायंस फॉर एनर्जी एफिशिएंट इकॉनमी (एईई) के संयुक्त तत्वाधान में शुक्रवार को छावनी स्थित एक होटल में ईंट उद्योग में ऊर्जा दक्षता, प्रदूषण नियंत्रण और पर्यावरण संरक्षण विषय पर कार्यशाला हुई। इसमें ईंट उद्योग को अधिक प्रतिस्पर्धी और पर्यावरण के अनुकूल बनाने पर चर्चा हुई। शुभारंभ ईंट निर्माता परिषद के अध्यक्ष कमलकांत पांडेय, उद्योग विभाग के अपर आयुक्त उमेश कुमार

कार्यशाला में मौजूद सदस्य। संवाद

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Demand flexibility in India from regulatory mandate to market momentum

Nitin Srivastava, Sumedh Agarwal

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Old buildings, new fixes: 10 sustainable & affordable innovations to keep existing homes in urban India cool

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Cooling the future: Making District Cooling a core infrastructure in India's urban strategy

Pramod Kumar Singh, Vibhu Saxena

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Smart cities start here: Financing municipal building retrofits through shared savings

Winamra Negi

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Feeding the future: Rethinking cold storage for Haryana's potato economy

Ranjana Kumari

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Innovation, research and collaboration drive India's energy efficiency agenda at AEEE Energise 2025

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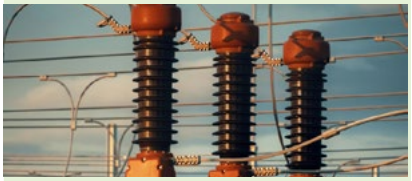
The energy not-for-profit

Sumedh Agarwal



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Operations and Financial Statements

Alliance for an Energy Efficient Economy
37 Link Road, Ground Floor, Lajpat Nagar III, New Delhi-110024
Balance Sheet as at 31st March 2026
(Consolidated Accounts)

	Particulars	Note	As at 31 March 2026 (in ₹)	As at 31 March 2025 (in ₹)
I	**Sources of Funds**			
1	**NPO Funds**	3		
(a)	Reserve Funds		11,64,36,572	8,25,85,419
(b)	Assets Funds		1,31,47,784	1,28,57,756
(c)	Project Funds		6,40,93,253	13,01,40,399
2	**Non-current liabilities**			
(a)	Other long-term liabilities	4	9,58,125	22,22,000
(b)	Long-term provisions	5	23,97,977	24,82,732
3	**Current liabilities**			
(a)	Other Payables	6	2,25,18,707	2,44,39,045
(b)	Other current liabilities	7	80,75,158	1,14,74,623
	Total		**22,76,27,576**	**26,62,01,974**
II	**Application of Funds**			
1	**Non-current assets**			
(a)	Property, Plant and Equipment and Intangible assets	8		
(i)	Property, Plant and Equipment		1,26,77,903	1,29,60,737
(ii)	Intangible assets		26,65,179	12,49,283
(iii)	Intangible asset under development		4,50,790	6,55,226
2	**Current assets**			
(a)	Current investments	9	14,44,10,409	15,58,85,448
(b)	Receivables	10	2,40,75,849	3,62,00,685
(c)	Cash and bank balances	11	3,15,98,965	4,57,12,533
(d)	Short Term Loans and Advances	12	95,38,536	1,12,23,155
(e)	Other current assets	13	22,09,944	23,14,906
	Total		**22,76,27,576**	**26,62,01,974**

Brief about the Entity & Summary of significant accounting policies 1&2
The accompanying notes are an integral part of the financial statements.

For & on behalf :
S. Sahoo & Co
Chartered Accountants
Firm No. 322952E

S. Sahoo & Co. CA INDIA FRN: 322952E New Delhi Chartered Accountants

CA (Dr.) Subhajit Sahoo, FCA, LLB
Partner
MM No. 057426
UDIN: 26057426IDNGPA8988
Place: New Delhi
Date: 25.08.2026

For & on behalf :
Alliance for an Energy Efficient Economy

Satish Kumar
Secretary

G.V. Venkatesh
Chairman

Satish Kumar
Secretary
Alliance For an Energy Efficient Economy

Chairperson
Executive Council
Alliance For an Energy Efficient Economy

Alliance for an Energy Efficient Economy
37 Link Road, Ground Floor, Lajpat Nagar III, New Delhi-110024
Income and Expenditure for the year ended on 31st March 2026
(Consolidated Accounts)

	Particulars	Note	As at 31 March 2026 (in ₹)	As at 31 March 2025 (in ₹)
I	**Income**			
(a)	Donations and Grants	14	16,05,39,833	15,71,63,293
(b)	Other Project Receipts	14	10,40,53,786	7,71,57,797
(c)	Other Income	15	1,31,60,818	1,23,70,060
II	**Total**		**27,77,54,436**	**24,66,91,150**
III	**Expenses:**			
(a)	Expenditure on Objects of Organization-Program Expenses	16	18,13,95,337	16,95,61,010
(b)	Establishment Expenses	17	5,97,56,062	5,70,26,429
(c)	Depreciation and amortization expense		32,51,884	31,67,607
	Total		**24,44,03,283**	**22,97,55,046**
IV	Excess of Income over Expenditure before exceptional and extraordinary items		3,33,51,153	1,69,36,104
V	Exceptional items			
VI	Excess of Income over Expenditure for the year before extraordinary items		3,33,51,153	1,69,36,104
VII	Extraordinary Items			
VIII	**Excess of Income over Expenditure for the year (VII-VIII)**		**3,33,51,153**	**1,69,36,104**
	Appropriations Transfer to funds:			
	Transfer to/(from) Project fund:		-	-
	Balance transferred to General Fund:		**3,33,51,153**	**1,69,36,104**
	Brief about the Entity & Summary of significant accounting policies	1&2		

The accompanying notes are an integral part of the financial statements

For & on behalf :
S. Sahoo & Co
Chartered Accountants
Firm No. 322952E

S. Sahoo & Co. CA INDIA FRN: 322952E New Delhi Chartered Accountants

CA (Dr.) Subhajit Sahoo, FCA, LLB
Partner
MM No. 057426
UDIN: 26057426IDNGPA8988

Place: New Delhi
Date: 25.08.2026

For & on behalf :
Alliance for an Energy Efficient Economy

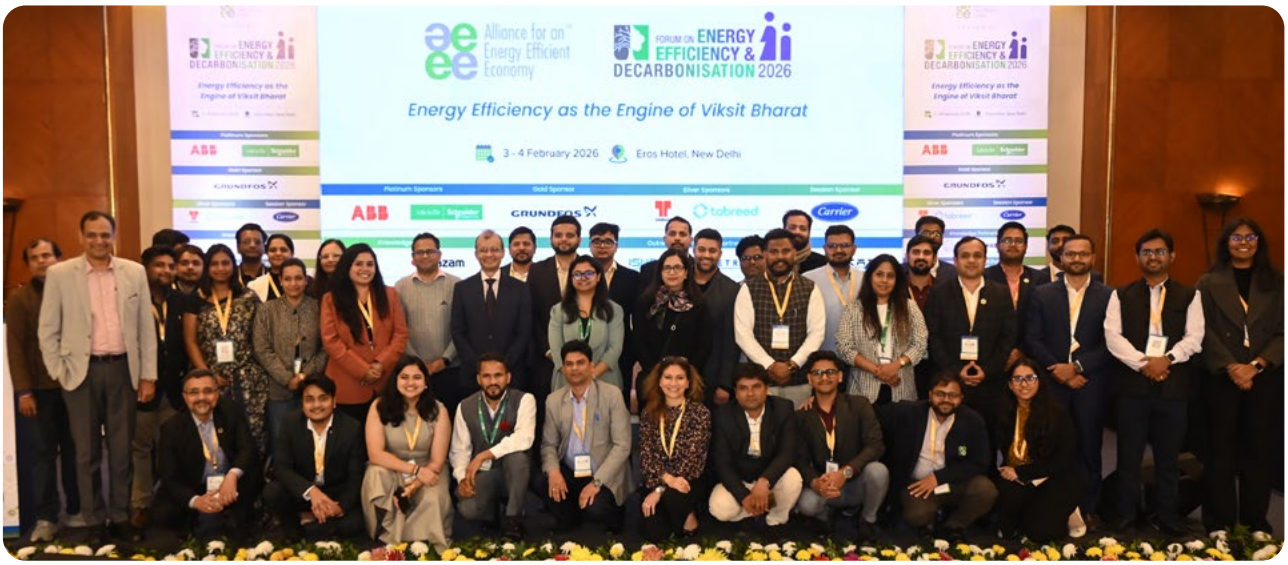
Secretary

Chairman

Satish Kumar
Secretary
Alliance For an Energy Efficient Economy

Chairperson
Executive Council
Alliance For an Energy Efficient Economy

AEEE FAMILY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Energy Efficiency as the Engine of Viksit Bharat
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