About Alliance for an Energy Efficient Economy

AEEE champions energy efficiency as the first fuel!

Alliance for an Energy Efficient Economy (AEEE) is a policy advocacy and energy efficiency market enabler with a not-for-profit motive. It is the only organization in India that works on creating awareness about energy efficiency as a resource. It advocates data driven and evidence-based energy efficiency policies that will unleash innovation and entrepreneurship within the country to create an energy efficient economy.

AEEE celebrated 10 years of its establishment in 2018, and marked this milestone with a celebration dinner hosted during the International Energy Services Conclave in March 2019. A decade in the energy efficiency sector, the organisation is poised at a juncture of strategic growth through multiple collaborations and partnerships. AEEE is also increasingly becoming a credible and recognised voice among policy makers and businesses, and the preferred choice as a knowledge partner in energy efficiency.

As a think-tank and industry association, we adopt a 360° approach, collaborating with diverse stakeholders including policymakers, government officials, business and industry, consumers, researchers, and civil society organizations bringing together the best to the Energy Efficiency landscape in the country. The aim is to transform the market for energy-efficient products and services, thereby contributing towards meeting India’s commitment to the Nationally Determined Contributions (NDCs) and United Nations Sustainable Development Goals (SDGs).

As part of providing value-added service to our members and partners, our three key focus areas:

**Policy Advocacy:** Advocate for data driven and evidence-based policies to unleash innovation and entrepreneurship to create an energy-efficient Indian economy.

**Market Enablement:** Help create a market for best available technologies and solutions by collaborating with industry and government to design and implement effective policies.

**Business & Industry Platform:** A convening platform for industry, government & civil society; training & capacity building on EE technologies & solutions; flagship events and conference.
About Alliance for an Energy Efficient Economy

AEEE works towards establishing symbiosis between the two focal areas of **Policy Advocacy & Market Enablement** by:

- **Supporting Government of India,** as a knowledge partner, in developing policy
- **Benefit members and scale the EE market** by developing impactful policies

### Core Verticals

- **Energy efficiency policy making through research and analysis**
- **Address India’s cooling needs through holistic and responsible cooling strategies and policies**
- **Demonstrate thought leadership in energy efficiency**
- **Catalyse a dynamic ESCO market through partnerships and financing**
- **Contribute to India’s climate action commitment through collaborative energy efficiency strategies**

### Theory of EE Enablement

- **EE INDUSTRY PLATFORM**
  - Create a credible EE platform to advocate business-enabling policies and develop a collaborative ecosystem

- **POLICY ENABLEMENT**
  - Advocate futuristic, holistic and data-driven EE policy that foster innovation and entrepreneurship

- **THINK TANK**
  - Develop thought leadership position by nurturing innovative technologies and business models

- **MARKET ENABLEMENT**
  - Work with public and private sectors to create and enable widely adopted business value propositions
Thematic Areas

AEEE is consistently identifying areas of engagement as it provides evidence to build an economic case for energy efficiency. Its work is focused on areas that would enable energy to be used productively, spur economic growth, and contribute to building a clean environment.

India’s energy demand is expected to double by 2030. Becoming more energy efficient is the cheapest and fastest way to reduce energy consumption as well as reduce carbon pollution. AEEE aids the design and implementation of policies that lead to greater energy efficiency in three sectors with enormous potential: 1. Buildings and Appliances, 2. ESCO & Financing 3. Urban Infrastructure & Utilities.

Buildings & Appliances

The buildings sector alone accounts for over 30% of India’s total electricity consumption. India is at a strategic juncture where two-thirds of the commercial and high-rise residential structures that will exist in 2030 are yet to be built. Indian cities alone will host 200 million more people by 2030 that will pose a staggering burden on India’s energy requirement. In this backdrop, optimising energy efficiency in buildings constructed in the next two decades, and electrical appliances assumes great significance. AEEE is working towards adoption of ECBC, designing of energy efficient affordable and sustainable housing that prioritizes Thermal Comfort for All, Energy Data Management, and Building Stock Modelling. Development and implementation of India Cooling Action Plan, clean Cold-chain, Mainstreaming Super-Efficient Appliances and Cooling appliances are in the spotlight.

ESCO & Financing

The energy efficiency market in India is estimated to be worth INR 110,000 crore, out of which only 5% potential has been tapped by the energy service companies (ESCOs). There are 150 empanelled ESCOs but other than Energy Efficiency Services Limited (EESL) none have made substantial impact in the EE sector. Some core challenges faced by ESCOs is compliance to contractual obligations, payment security issues, access to financing, and M&V disputes. AEEE, is playing an active role in aiding ESCO market achieve its full potential. Our vision in the domain is to promote collaboration on knowledge sharing, encourage adoption of best available solutions and technologies, attract EE investments and support policy makers through market intelligence and recommendations to scale this segment. The key activities include facilitating dialogue among the market players and build a data driven and transparent ecosystem for businesses. An international conclave for all the stakeholders of EE service business is part of the team’s biennial calendar.

Urban Infrastructure & Utilities

Poor urban infrastructure has been a drag in India’s growth story. Rapid urbanization and the concentration of economic activities in the cities have put urban infrastructure under stress, and aggravated pollution levels. Juxtapose with that the global, electric sector which is at a crossroads, witnessing some major disruptions. Staying future focussed, AEEE is studying issues related to the adoption of low/ zero emission mobility solutions like EVs and scaling up Demand Side Management interventions beyond vanilla end-use energy efficiency measures. AEEE’s current research interests focus on the deployment of charging infrastructure for different vehicle segments, the inter-linkages between the electricity grid and e-mobility, and the sensitisation of consumers about the need to adopt low/ zero emission vehicles.
AEEE’s Collaboration with Key Govt Bodies

Bureau of Energy Efficiency
- Leading AEEE’s State EE Index initiative, in facilitation with SDAs
- Partnering for a $1 billion ESCO market,
- ECBC implementation w/ key inputs on residential public draft

Ministry of Environment, Forest & Climate Change
- Knowledge partner offering research and thought leadership to Thermal Comfort for All report - core strategy for India Cooling Action Plan (ICAP)
- Leading the Building and Cold Chain section of India Cooling Action Plan
- Leading (1) Space Cooling in Buildings and (2) Cold-chain & Refrigeration

Department of Science & Technology (DST)
- Chairing Proposal Evaluation Committee for Initiative to Promote Habitat Energy Efficiency (I-PHEE)
- Steering Committee -> Global Technology Watch Groups (GTWG) for National Action Plan on Climate Change (NAPCC)

National Institution for Transformation of India (NITI) Aayog
- ECBC Implementation
- Provide inputs on the EE sections of National Energy Policy
- Member of the task force for National Energy Data Mgmt framework;
- Partner in AEEE’s State EE Index
AEEE members represent diverse segments of the energy efficiency (EE) industry - technology, equipment and service providers, consulting companies and varied energy end-users committed to energy efficiency. AEEE members also include reputed research and academic organisations. AEEE has a participatory approach involving members and seeking guidance from its knowledge partners and peer organisations.

AEEE supports its members to increase their credibility in the area of energy efficiency by providing a bouquet of value-added, customised services. AEEE creates opportunities for its members that enable scaling of energy efficiency products and services, and also catalyse EE financing.

AEEE currently has over 50 members from diverse sectors and plans to substantially scale up membership in 2019.
As a membership-based industry body, AEEE is governed by its Executive Council. At the Annual General Meeting held in July 2017, a new Executive Council was elected per AEEE rules for a two-year term (2017-2019). The Council is chaired by Mr. Upendra Bhatt, Co-founder & Managing Director, cKinetics Consulting Services Private Ltd. with Mr. Ajay Durrani, Managing Director, Covestro India Private Ltd. and Mr. Ranganath N. Krishna, CEO and MD, Grundfos Pumps India Private Ltd. elected as Vice Chairperson and Treasurer respectively.

The Council brings vast experience and knowledge, extremely beneficial in guiding AEEE to the next level.

**Secretariat Leadership**

Dr. Satish Kumar has been leading AEEE as its President and Executive Director. His leadership, vision and substantial achievements in energy efficiency, sustainable development and climate change contributes significantly to the growth trajectory of AEEE.
Executive Council (EC) for the term 2018–2019

**Mr. Upendra Bhatt,** cKinetics Consulting Services Pvt. Ltd.
Chairperson, AEEE EC

**Mr. Ajay Durrani,** Covestro India Pvt. Ltd.
Vice Chairperson, AEEE EC

**Mr. Ranganath N Krishna,** Grundfos Pumps India Pvt. Ltd
Treasurer, AEEE EC

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**INVITED MEMBERS OF EXECUTIVE COUNCIL**

**Dr. Ajay Mathur**
Director General, TERI
Former DG-BEE
Climate Change & EE Expert

**Mr. S. Padmanabhan**
International Consultant, Energy & Water Productivity, Former Energy Efficiency Advisor World Bank, Former Program Director & Senior Energy Advisor USAID

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**MEMBERS**

**Mr. Arun Bhatia**
United Technologies Corporation India Pvt. Ltd.

**Mr. Venkat Garimella**
Schneider Electric India Pvt. Ltd.

**Mr. Devidas Kulkarni**
Siemens Limited

**Mr. Ravichandran Purushothaman**
Danfoss Industries Pvt. Ltd.

**Dr. Satish Kumar**
Secretary to Executive Council

**Mr. Arjun Gupta**
Smart Joules Pvt. Ltd.

**Mr. Milind Chittawar**
See-Tech Solutions Pvt. Ltd.

**Mr. Mahesh Patankar**
MP Ensystems Advisory Pvt. Ltd.

**Prof. Rajan Rawal**
CEPT University
Executive Council (EC) for the term 2018–2019

AEEE’s President and Executive Director works directly with the Board, i.e., the Executive Council (EC). To enable effective governance and coordination, AEEE’s operational matters are overseen by a Management Committee comprising of the Chairperson, Vice Chairperson and a Treasurer.

In addition, to help provide guidance and oversight to the AEEE Secretariat on key policies, the Executive Council has established 3 sub-committees:

- Finance and Audit Committee
- Remunerations and HR Policy Committee
- Programmes and Projects Oversight Committee

The Finance and Audit Committee provides oversight on budgets, spending, approval of budget for capital expenditure, new projects and programmes.

The Remunerations and HR Policy Committee oversees HR policies, conducts senior leadership performance reviews, approves annual increments, approves senior hires.

The Programmes and Projects Oversight Committee ensure AEEE’s programmes and engagement with partners and member companies are aligned to AEEE’s vision and mission.

Current committee members include

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<tr>
<th>Finance and Audit Committee</th>
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<tr>
<td><strong>Convener:</strong> Mr. Ranganath N Krishna</td>
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<td><strong>Convener:</strong> Mr. Mahesh Patankar</td>
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<td><strong>Other Members:</strong> Mr. Rajmohan Rangarajan (Past EC Member)</td>
<td><strong>Other Members:</strong> Mr. Arun Bhatia Mr. Venkat Garimella Mr. Ranganath Krishna Mr. Upendra Bhatt</td>
<td><strong>Other Members:</strong> Mr. Ravichandran Purushothaman Mr. Milind Chittawar Prof. Rajan Rawal Dr. Satish Kumar Mr. Upendra Bhatt</td>
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AEEE is the only organisation in India which works towards creating awareness about energy efficiency as a resource. It is committed to positioning energy efficiency as the first fuel in India and to ensuring that every organisation in every sector has energy efficiency embedded as a core value and mission.

The year gone by, 2018, has been momentous for AEEE. This year has seen unparalleled growth in diverse directions, meaningful dialogue with a range of partners, implementation of exciting new projects, fruitful culmination of some key projects that have left an indelible mark on India's energy efficiency landscape, and last, but not the least, the mega event, International Energy Services Conclave (IESC) 2019, a flagship energy efficiency conclave, organised by AEEE in partnership with Bureau of Energy Efficiency (BEE) for scaling of business through customer centric energy efficiency services.

AEEE also has a proactive Executive Council that brings its expertise, knowledge and mentoring to help spur greater growth and scaling new pathways for the EE sector in India.

As AEEE concludes its 10th year of operations, it has emerged as the partner of choice for the Indian government, multilateral and bilateral organisations, private sector players and research and academic institutions. Increasingly, AEEE’s work has been focussed on areas that are in alignment with the government’s own focal areas, viz. Space Cooling, ESCO markets, ECBC, E-Mobility and Urban Housing. Here are some of AEEE’s leading initiatives from the past year.
Leading Initiatives

Launch of Green Vehicle Rating (GVR)

In August 2018, AEEE with support from SHAKTI Sustainable Energy Foundation launched the Green Vehicle Rating (GVR) program. This launch marked India’s first vehicle rating system based on environmental performance. The launch event was attended by Mr. Alok Tripathi, Executive Director, Petroleum Conservation Research Association (PCRA). The inaugural address was delivered by Mr. Krishan Dhawan, CEO, SHAKTI Sustainable Energy Foundation. The President and Executive Director, AEEE, Dr. Satish Kumar, offered an overview of the GVR program. It was followed by the launch of the GVR report and the web-portal which serves as a consumer information tool. An informative panel discussion chaired by Ms. Anumita Roychowdhury, Executive Director, Centre for Science and Environment (CSE) and networking high tea followed.

Global Cooling Innovation Summit & Global Cooling Prize Launch

AEEE assisted in both planning the pioneering Global Cooling Innovation Summit and launching of Global Cooling Prize in India on November 12-13, 2018. AEEE developed an amplification database of cooling influencers such as, air-conditioner manufacturers, industry, industry associations, academic and research institutions, government stakeholders and other private sector players for Rocky Mountain Institute (RMI) to invite to the event via email. AEEE followed up on email and via phone calls to optimize participation. Over 200 participants including government officials, delegates, speakers and media personnel were in attendance.

The Global Cooling Innovation Summit prominently featured the launch of the Global Cooling Prize on 12th November 2018 and panel discussions on topics of innovations in cooling, investment, and scaling of breakthrough technologies, and policy support for cooling innovations of the future. The Minister of Science and Technology, Environment, Forest and Climate Change, Government of India, Dr. Harsh Vardhan, launched the prize portal and delivered the inaugural address. The launch of the Global Cooling Prize was livestreamed by the Ministry’s Youtube channel.
IESC: International Energy Services Conclave 2019

Alliance for an Energy Efficient Economy (AEEE) and Bureau of Energy Efficiency (BEE) jointly organised the International Energy Services Conclave 2019: Energy Efficiency for Business Competitiveness from 6-8 March 2019. This unique 3-day flagship event a first-of-its-kind event for the EE services business stakeholders aimed to scale business through customer centric energy efficiency services. The conclave brought together decision makers from End Customer segment from Industries (Large, Medium & Small), Buildings (Commercial & Public), and Municipalities, OEMs, Technology Providers, Service Providers, Banks & Financial Institutes, and Start-ups to innovate on energy efficiency service delivery models and improve competitiveness of end customers and to increase the adoption of overall energy efficiency measures.

The Conclave had largely covered emerging topics in five plenary, four executive discussions and four biz tech sessions including energy efficiency aligned business strategy, innovative financing, role of non-profit, advanced measurement & verification, and innovation in technological solutions & business models for different sectors. IESC examined the best practices and successes of today, within the context of emerging trends and technologies of tomorrow, to scale up and leverage.

At the conclave, TechnoBuzz, which provided an opportunity to OEMs and Service Providers to showcase their unique offerings and solutions to the customers. A report prepared by AEEE titled “Energy Efficiency- A Compelling Value Proposition and Enabling Resource for Smart Cities” and a whitepaper jointly written with Oracle Utilities on “Behavioural Energy Efficiency Potential for India”, were launched at the Conclave.
the energy and non-energy benefits of EE well into the future years.

The conclave hosted more than 350 delegates over three days with 80 plus national and international speakers from the EE services industry. Information about IESC 2020, including the conference proceedings is available on AEEE’s website.

**India Cooling Action Plan (ICAP)**

AEEE provided thought and knowledge leadership as part of the Steering Committee for the development of Government of India’s bold document India Cooling Action Plan (ICAP), a flagship initiative of the Ministry of Environment, Forest and Climate Change (MoEFCC). Thermal Comfort for All is a national priority and social imperative to address sustainable development, energy security, and climate resilience. India is the first country in the world to develop such a document, which addresses cooling requirement across sectors and lists out actions which can help reduce cooling demand. With this bold initiative a 20-year outlook on the changing face of cooling demand in India across multiple sectors, outlining strategies and actions AEEE started its journey to promote sustainable and smart cooling access to all. Subsequently, AEEE has been amplifying the India Cooling Action Plan with strategic messaging, thematic working groups and multi-stakeholder events. AEEE will continue to support the overall roadmap for ICAP and is working on subsequent projects in the field of sustainable cooling - **Space Cooling in Buildings** and **Cold-chain & Refrigeration** topics that AEEE has demonstrated leadership in.
Sustainable and Smart Space
Cooling Coalition (Phase 2)

In its first year, the Sustainable and Smart Space Cooling Coalition released the Thermal Comfort for All report. In Phase 2, AEEE is exploring the techno-economic feasibility of alternate low energy cooling technologies. An extensive survey of manufacturers and users are being carried out to assess low energy cooling technologies and mainstream their use in suitable application areas and climate zones. AEEE is also carrying out a technical investigation on the criteria and testing protocols for energy ratings to windows.

Global Cooling Prize (GCP)

The Global Cooling Prize is rallying a global coalition of leaders to solve the critical climate threat that comes from growing demand for residential air conditioning. By harnessing the power of innovation, cooling solutions can be provided that enhance people’s lives without contributing to runaway climate change. A radical room AC solution that will have at least 5X less climate impact. AEEE has partnered with Rocky Mountain Institute (RMI), USA and Department of Science & Technology (DST), under the Indian Ministry of Science and Technology, Mission Innovation, Conservation X Labs and CEPT University. AEEE worked with RMI to help facilitate the Global Cooling Prize Launch in India as an outreach partner, also organized two awareness meets on Global Cooling Prize in Mumbai and Chennai on 11th December and 13th December 2018 respectively.

Whitepaper on Behavioural Energy Efficiency Potential for India

Residential electricity consumption is outpacing industrial and commercial consumption in India. Under a business as usual scenario, the residential electricity demand in Indian cities will rise eight-fold by 2050. It is time to change consumer outlook and behavior towards energy (and resource). Behavioural energy efficiency is the stepping stone to motivate the public to use less energy. It is based on the principles of social science where consumers are provided with relevant, and actionable information about their energy use. The novelty of this programme prompted AEEE and Oracle Utilities to synthesize a whitepaper which illustrates the programme mechanics, presents relevant case studies, highlights the conducive ecosystem needed to enable the scaling of such programmes at a national level and attempts to evaluate the...
potential aggregate impact (direct energy benefits as well as indirect non-energy benefits) of similar programs if implemented pan-India.

**Mainstreaming Super-efficient Appliances**

AEEE and ACEEE are jointly conducting research on the most energy-efficient product models among ceiling fans, refrigerators and TVs in Indian and global markets. The aim is to identify technologies that differentiate the most energy-efficient models from others, and suggest pathways for mainstreaming super-efficient technologies. AEEE chose these three appliances since they are among the top appliances in residential electricity consumption for the period 2015-2030, the topmost being room air conditioners. The research includes analysis of appliance energy consumption vis-à-vis technology used. AEEE has sought inputs from manufacturers on barriers and recommendations for mainstreaming the most energy-efficient technologies and will develop policy recommendations to mainstream the most energy-efficient technologies and publish these in a report in July 2019.

**Increasing Energy Access by Using Super-Efficient Appliances in Low income Urban & Rural Homes**

AEEE is applying its energy efficiency expertise to evaluate how super-efficient appliances, including off-grid appliances, such as fans, refrigerators and televisions (TVs), and others, such as, radio, mixer grinder, sewing machines, refrigerators, milk chillers etc. are a resource to increase energy access in low income urban and rural households and productive businesses. AEEE will publish a stakeholder mapping report and a detailed market analysis of 3-5 super-efficient appliances with high penetration potential, to aid stakeholders to develop the market for super-efficient appliances, including off-grid appliances, and improve energy access in low income homes.

**Decision Making Frameworks for EV Charging Infrastructure**

Charging infrastructure is deemed the backbone of e-mobility and has been the most contentious issue. Limited understanding about EV chargers pose as a serious hurdle to scale up EV uptake. Against this background, AEEE is carrying out objective research to facilitate the transition of India’s urban mobility to a fully electric format. The research intends to:

- Identify the best available charging options for different charging requirements of each possible EV segment in India and subsequent setting-up of public charging facility
- Recommend appropriate tariff framework and regulatory changes to enable establishment and operating charging stations as a commercially viable business venture in India’s context
- Explore opportunity to utilize EVs as a demand response resource and virtual power plants using V2G functionality in India
Towards Climate Responsive and Low Carbon Development: Addressing the Critical Urban Issues in Residential and Transport sector in Uttarakhand

AAEEE is supporting National Mission on Himalayan Studies goals by addressing cross-cutting issues in major urban centres of Uttarakhand. This project will foster R&D in areas related to energy and built environment within colder regions and will allow deep-dive into the targeted issues. The project findings will also guide other colder regions in Himalayan ecosystem to strategise sustainable and low carbon development of residential sector. AEEE is supporting MoEFCC and GBNPISHEED by creating this science-policy-practice connect through a network of policy makers and practitioners (individual and institutions) engaged in working solutions to problems in the thematic areas.

Urban Transport
- Support in the decision making of the concerned authority in Uttarakhand regarding deployment of electric buses for public transport on specific intra-city or inter-city routes;
- Support in building institutional capacity of relevant state actors in Uttarakhand with regard to implementation of electric mobility in the state.

Urban Residential Sector
- Development of residential building guideline/ roadmap with focus on occupants’ comfort and energy optimisation;
- Support demonstration projects though concurrence with development authorities/developers by integrating guidelines recommendations;
- Facilitating workshops, campaigns, road shows to sensitize government officials and occupants and support capacity building of relevant stakeholders.

ESCO Projects Pipeline Generation for Partial Risk Sharing Facility (PRSF)

AEEE is working with SIDBI to create awareness among the stakeholders on ESCO projects implementation with an objective to promote, facilitate, generate, develop and implement energy efficiency projects pipeline under ESCO model. To support the ESCO market development and facilitate the mobilization of commercial finance the partial risk financing instrument of SIDBI has become a viable solution for the ESCO industry. Through this project, AEEE aims to boost PRSF guarantee coverage by facilitating the implementation of projects under ESCO mode.

Niti Aayog’s Working Group on Demand Side Energy Data Management

AEEE is working with Niti Aayog on the Energy Data Management for India. Niti Aayog has constituted a Working Group (WG) on building sector which is being chaired by Addl. Secretary of Ministry of Housing & Urban Affairs (MoHUA) . The WG aims to identify the current status of energy data management in India, issues with energy data collection system, and sector wise energy data gaps. The outcome envisaged from this WG is to strengthen the existing energy data collection/dissemination system in India and develop a mechanism for real time energy data update for energy sector planning.

Emerging Dynamics in Energy Management & Information System

AEEE is researching on IoT technologies and Energy Management System to identify viable commercial solutions for the benefit of facility owners to get deeper insights, strategies to optimize building energy performance and manage energy costs. The outcome of the study will be to create an enabling framework for energy efficiency in the commercial building sector through an innovative & transparent energy data collection and information system, data driven decision making and evidence-based energy management.

State Energy Efficiency Index Launch

AEEE under the guidance and leadership of the Bureau of Energy Efficiency (BEE) and NITI Aayog, published India’s first ever State Energy Efficiency Index for about 30 Indian states. The Index report and web portal were launched by Shri Ajay Kumar Bhalla, Secretary, Ministry of Power in August 2018. The first
A union with 30 states (quasi-federal in nature), India’s national energy efficiency goals, can only be realised with each state achieving theirs, individually.

Ongoing Projects at AEEE

**FRAMEWORK**
- Policy & Regulation
- Financing Mechanisms
- Institutional Capacity
- Adoption of EE Measures
- Energy Savings

**INDICATORS**
- Qualitative
- Quantitative
- Outcome based

**OBJECTIVES**
- Set Targets
- Highlight best practices
- Track progress

**2018 State Scores**
- FRONT RUNNER >60
- ACHIEVER 50-60
- CONTENDER 30-49
- ASPIRANT <30

**2018**
- Completed
- Ongoing

**2019**
- Planned
- Planned

**Building Energy Codes**
- 9 States

**EE Lighting**
- 30 States

**EE Appliances**
- 27 States

**EE Street Lighting**
- 25 States

**EV penetration (per 100k registered vehicles)**
- >200 EVs: 2 States
- 100-200 EVs: 8 States
- <100 EVs: 20 States

**Financial Incentives**
- 7 States
Index assessed 30 states across 63 indicators and set a baseline for EE efforts to date. This unique Index enables states to benchmark themselves against high performers, learn from best practices, set EE targets and monitor EE programmes. Work on State EE Index 2019 Phase II was recently kicked-off at the SDA Conclave organised by BEE on 4 April 2019.

ESCONet Platform

A unique, peer learning forum to enable the energy efficiency services sector ecosystem. The industry professionals, end consumers and policy makers come together to discuss opportunities and strategies to grow the ESCO market. An online platform for different stakeholders to build business and reach out to a larger set of market players for adoption of EE projects and share learnings from different areas of intervention and experiences.

ESCO Market Catalyser Project

With the objective of getting ESCO projects implemented, AEEE started a business facilitation initiative conducting multiple focused group discussion and business facilitation seminars and workshops with Utilities (BYPL and TATA Power DDL) and similar associations (ISGF) to make a case for EE retrofit via ESCO contracts and to remove apprehensions on the same among the end-users, along with development of two standardized technological solutions for large-scale replication. The exercise contributed to demand aggregation for EE services through DISCOMs customers and Associations’ members and connected the demand to suppliers of technologies and appropriate projects.

Energy Efficiency Data Collection for India

AEEE carried out the research for IEA’s Energy Efficiency in Emerging Economies Programme (E4 Programme) to map the publicly available information on energy activity and consumption for different economic sectors. The key objectives of the task is to understand the availability of the demand side data (energy consumption), strategic data gaps, mapping of institutions, think tanks, and development agencies on producing the data for commercial, residential and transport sector. In addition to collating information on energy efficiency policies/programmes at the national level and collect data on, policy incentives, spending status and the benefits achieved.

Launch of the State Energy Efficiency Index, August 2018, New Delhi

Energy Efficiency Data Collection for India
Cold-chain Energy Efficiency in India: Analysis of EE Opportunities in Pack Houses

The objective of this assignment for the World Bank Group is to support the Bureau of Energy Efficiency (BEE) in developing options for enhancing the energy efficiency of pack houses in India. The assignment objective will be achieved through an analysis of current status of the pack houses for horticultural products in India, assessment of recent energy use trends and projections for pack houses, identification of energy efficiency improvement opportunities in pack houses, in turn drawing and recommending options for BEE’s consideration. The project will see its fruition in a set of recommendations for BEE action to promote energy efficiency in cold chain and pack houses.

The assignment will comprise:

- Stocktaking and initial assessment, comprising a review of institutional, policy and regulatory framework, initial overview of pack houses in India and review of good international practice.
- Detailed assessment for a sample of pack houses and development of a prioritized set of options with highest potential for energy saving, along with cost-benefit analysis.
- Recommended regulatory actions for BEE consideration.

Thought Leadership - Energy Efficiency, a compelling value proposition and enabling resource for smart cities

AEEE’s, Thought Leadership - Energy Efficiency, A Compelling Value Proposition and Enabling Resource for Smart Cities paper was launched at the International Energy services Conclave (IESC) in March 2019. AEEE as the knowledge partner for both government organisations and businesses focused on solutions and services that align with national priorities leading to sustainable development while meeting India’s international commitments and giving precedence to energy security considerations. This paper is an effort to position energy efficiency as a significant enabler:

- To reduce the GHG emissions footprint of Indian cities.
- To act as a glue to integrate traditional, intelligent and digital technologies with the modern fabric of the smart cities.

The paper has an overarching framework that captures how a traditional city can be transformed into a smart city. It also showcases an "energy efficiency value creation framework" that pulls together the types of habitat, expectations, objectives and the ways the three core stakeholders (the government, the private sector, and the civil society) to give impetus to a city transformation initiative. Identifying the four key constituting elements of a smart city:

A banana pack-house facility in India (representative image)

Houses in Uttarakhand (representative image)
Upcoming Projects

Green Vehicle Rating – Phase II

AEEE plans to improve the existing GVR programme by:

- Expanding the scope of GVR to include non-ICE vehicle technology as well as incorporate more ICE-models in two-wheeler and three-wheeler segments
- Modifying existing rating framework to make it sensitive to vehicle engine capacity
- Building awareness about the rating system through concerted outreach effort

This project will be realized over a period of one year.
National Energy Saving from the Adoption of Adaptive Thermal Comfort Standards and Energy Efficient Strategies in Building Design

AEEE, in collaboration with LBNL and CEPT University, mapped the impact of adaptive thermal comfort standards on air-conditioning usage patterns and on the resulting nation-wide energy savings, utilizing field-tests and research; and assessing the impact of the use of high performance glazing, well-designed window/fenestration, and shading strategies on cooling demand. AEEE conducted lab tests of room air-conditioners prevalent in India to assess the energy saving impact of indoor set point variation as per adaptive thermal comfort standards. These tests provided evidence-based guidance on possible energy savings through per °Celsius increase in the temperature setpoint. Apart from establishing the energy savings, these tests helped validate the actual energy performance of air conditioners compared with the rated performance on energy label.

Demand Analysis of Cooling by Sector in India in 2027

AEEE, with support from Indo-German Energy Forum (IGEF), undertook a first-of-its-kind study in India providing a comprehensive overview of nationwide cooling energy needs covering five sectors: space cooling in buildings, mobile air-conditioning, refrigeration, cold-chain and industrial process cooling. This study provides an aggregation of cooling demand and carbon dioxide emission impact by 2027, looking at ‘business-as-usual’ and ‘improved’ scenarios; and discussed key energy efficiency opportunities in each sector and the extent to which they can address as well as help neutralize the impacts of the sector’s respective cooling growth.

Lab testing of RACs to validate energy saving opportunities under adaptive thermal comfort standard

Building upon our existing body of work in cooling, AEEE is conducting the lab tests of room air-conditioners to assess the energy saving impact of indoor set point variation as per adaptive thermal comfort (ATC) standards. These tests shall provide evidence-based guidance on possible energy savings through per °Celsius increase in the temperature set point. The test findings could help the GOI to firm up the policies regarding prescribing temperature set point guidelines for different portfolio of government and private buildings. Apart from establishing the ATC energy savings, these tests shall also help validate the actual energy performance of air conditioners compared with the rated performance on energy label. In the absence of any suitable test protocol, customised tests were designed in consultation with an internationally recognised testing lab (NABL accredited in India) with expertise in performance testing of room air-conditioners. The tests were carried out on a Balanced Ambient Calorimeter air conditioner testing facility with additional monitoring parameters (at specified monitoring frequency) per the customised test procedure.

Green Vehicle Rating (GVR) Phase I

As a first-time effort in India, Alliance for an Energy Efficient Economy (AEEE) has pioneered the Green Vehicle Rating (GVR), the country’s only vehicle rating system based on the environmental performance. It serves as a consumer information tool that identifies high to low performing vehicle models, in two and three-wheeler categories, in terms of the negative impacts of GHG emissions and criteria pollutants released from tail pipes of top selling models. Along with a comparative analysis of vehicle models, the GVR shows the external costs of pollution from vehicle exhausts - both GHGs and criteria pollutants. AEEE team also developed a dedicated web-portal on GVR. The portal allows consumers and other stakeholders to check the vehicle ratings, the method, data and assumptions used to rate the vehicles.
AEEE advocates Energy Efficiency as a resource and raises its profile as the organisation for Energy Efficiency via outreach to Members and Stakeholders through various awareness, training and capacity building events.

**AEEE’s participation at CAHOCON-2018**

CAHOCON is an annual flagship event of Accredited Hospitals in India and organized by Consortium of Accredited Healthcare Organization (CAHO). The event was held in Chennai on 6 – 7th April 2018 and saw the participation from various hospitals and healthcare facilities across India. AEEE technical staff participated with speaking role in one of the Master Class on “Optimization of Resources” to create awareness on strategies on resource consumption in the healthcare sectors. AEEE also provided the opportunity to three active Energy Service Companies (ESCOs) to present their past project case studies in the healthcare sector. The event helped the participating ESCOs to reach out to the end consumers and create awareness about energy efficiency. The ESCOs who participated in the event were Smart Joules, United Technologies and Bosch Limited. AEEE also established a display area at the forum, setting up an exhibit space at CAHOCON to provide opportunities to ESCOs, a platform to discuss potential business opportunities with the participating hospitals.

**AEEE- BYPL Business facilitation meeting for EE stakeholders**

AEEE in partnership with BSES Yamuna Power Limited (BYPL) conducted a one-day business meet for ESCOs, consumers, financing institutions and policy makers in New Delhi in April 2018. The workshop saw the participation from end consumers of Hospitals, Hotels, Retail Businesses, Residential and Industrial Units. This was a first of its kind initiation wherever a Distribution Company (BYPL) aggregated end customers from its service area for implementation of Energy Efficiency measures through the ESCO route. The business meet offered a platform for the ESCOs and end consumers to discuss opportunities for energy savings at their business establishments. The ESCOs presented case studies of actual implementation projects in hotels, hospitals and other sectors covering details on energy conservation measures implemented, business models adopted, measurement & verification approach used and financial investments and savings achieved. The meet also provided opportunities to the Financing Institutions to present on their financial products available for ESCOs and clients. A panel discussion involving stakeholders of the EE community such as – ESCOs, FIs, BEE and End Consumer Association was also hosted during the meet. The objective of the discussion was to identify the challenges faced by each stakeholder of the ESCO ecosystem and to formulate a way forward to boost the ESCO business opportunities.

**AEEE- TPDDL Business facilitation meeting for EE stakeholders**

AEEE, in partnership with Tata Power Delhi Distribution Limited (TPDDL), and with support from SHAKTI Sustainable Energy Foundation (SSEF), organised a workshop in June 2018, bringing together end-users and Energy Services
Companies to a single platform. Moving forward with the learnings from past ESCO projects, AEEE envisioned implementation of ESCO projects for the consumers of DISCOM, taking support from the utility in aggregating their end-consumers. The workshop was targeted for end consumers from Commercial Buildings and Industrial sector, broadening the scope to Hospitals, Hotels, Retail Businesses, and Industrial Units (including SMEs). Through this initiative, AEEE has started involving Utilities to promote energy efficiency services in their areas of power distribution.

AEEE-ISGF Business Facilitation Meeting for EE stakeholders

AEEE in partnership with India Smart Grid Forum (ISGF) organised a half day business meet for ESCOs, End consumers, Financing institutions and Policy makers in Bangalore in July 2018. The business meet provided a platform to energy service providers to showcase their expertise in energy efficiency retrofit projects under ESCO mode through case studies of past projects. The presentations made by ESCOs were aimed to create awareness, trust and confidence among the stakeholders on the success of the ESCO Business model. The energy users who have undertaken ESCO projects within their facilities shared their experiences and best practices from such interventions. The workshop was attended by approximately 80 facility owners from different segments of buildings, industries etc.

AEEE Exhibit at India’s World Environment Day Global Hosting

India was the global host for the World Environment Day (WED) for year 2018 in partnership with United Nations Environment Program (UNEP). To celebrate World Environment Day 2018, the Ministry of Environment, Forest and Climate Change (MoEFCC), organized workshops and exhibition in June, New Delhi keeping the UN theme “Beat Plastic Pollution” central to the event.

The Ministry invited AEEE to showcase its work and demonstrate the benefits of energy efficiency in the larger context of protecting the environment and its role as an enabler in supporting India’s commitments to UN Sustainable Development Goals and the International Climate Change agreement.

At the event AEEE interacted with varied group of stakeholders — policymakers, corporates, the youth, and the civil society at large. We emphasized flagship government initiatives and showcased some key projects in the form of posters, films
showcase on the themes of: (1) Green transportation and e-mobility; (2) The future of Cooling in India. The exhibition saw its culmination on 5th June. World Environment Day with a visit by Hon'ble Prime Minister, Mr. Narendra Modi and the Prime Minister’s closing remarks.

**ACREX India 2019**

ACREX India 2019, South Asia’s Largest Exhibition & Conference on Air Conditioning, Heating, Ventilation and Intelligent Buildings was organized by ISHRAE from 28th February to 2nd March 2019 at Bombay Exhibition Centre, Mumbai. On behalf of the Department of Science and Technology (DST), AEEE exhibited at ACREX and presented on Global Cooling Prize. At this large networking platform, the aim was to encourage the industry to come on board and collaborate with the academia in the mission for catalysing sustainable building innovations. Global Cooling Prize was one of the key highlights in the stall. A film on GCP and other projects were also screened, in the display TV by the stall. The stall attracted participation of more than 500 attendees over the course of three days who were a mix of industry professionals, manufacturers, and students.

**Global Cooling Prize (GCP) Awareness Events in December 2018**

The Global Cooling Prize, supported by Mission Innovation and the Department of Science and Technology, Ministry of Science and Technology, Government of India was launched on 12th November, 2018, by Dr Harsh Vardhan, Honourable Minister of Science & Technology, Environment, Forest and Climate Change and Earth Sciences, Government of India at the Global Cooling Innovation Summit, at New Delhi. The Global Cooling Prize Awareness events were hosted to engage with and inform the potential prize participants and other relevant stakeholders, such as state government and real estate developers in the region, about the technical criteria for the prize and the evaluation process. A one-on-one consultation session with GCP experts was also hosted during the event. Additionally, a video clip by Leading IP Lawyer Hari Subramaniam on Intellectual Property Rights and GCP was screened at the events.

**The Global Cooling Prize Mumbai Awareness Event**

It was attended by 50+ participants. Dr. JBV Reddy, DST participated in the event and the Indian Technical Review Committee Member– Prof. Subash Mullick, Mr. Vikram Murthy, President Elect, ISHRAE; Prof. Milind V Rane (IIT Bombay), Mr. Jitendera Bhambure (RAMA) and Ms. Smita Rakesh (Social Alpha) were panelists in the panel discussion on “Need to Provide Thermal Comfort for All Using Affordable and Super-Efficient RACs”.

**The Global Cooling Prize Chennai Awareness Event**

Dr. Sukumar Devotta and Prof. S Srinivas Murthy, Indian Technical Review Committee Members participated in the Chennai event along with Dr. JBV Reddy, DST. A panel on “Need to Provide Thermal Comfort for All Using Affordable and Super-Efficient RACs” was held with experts Prof S. Srinivas Murthy (GCP Technical Review Committee Member), Dr. Sukumar Devotta (GCP Technical Review Committee Member), Prof. R. Saravanan (ISHRAE) and Mr. Arup Majumdar (Industry Expert) were the panelists in the Chennai event.

**AEEE Members and Partners Meet**

AEEE organized a Members Meet in Mumbai in June 2018. The meeting saw robust participation, from AEEE Members companies, represented by their CEOs or top Management. AEEE’s President and Executive Director, Dr. Satish Kumar, presented on AEEE projects and program undertakings from the current year, AEEE policy and advocacy programs, and the studies and reports.
**AEEE Strategy Meeting**

In July 2018, AEEE hosted its strategy meeting and retreat. The objective of the retreat was to address core organizational challenges and bring about an internal transformation to empower AEEE to its full potential as a dynamic energy efficiency industry association that is future ready. There have been significant changes in the EE sector since AEEE’s inception in 2008 – including Government Priorities, Policy Frameworks, Urban Infrastructure and Consumer Awareness is evolving on a positive trajectory. In this context AEEE is rightfully gaining both national and global attention with its deep evidence-based research on the demand side of energy. Now is the time to reflect on our vision and strategy and create an execution model that will make AEEE an exciting organization for the industry and its stakeholders to partner. This retreat was an important opportunity to bring alignment within the governance and the leadership team and drive AEEE through this inflection point.

**AEEE-ISGF Panel Discussion on electric vehicles and its 21st Century Challenges (26 July 2018 in Bangalore)**

AEEE in partnership with the India Smart Grid Forum (ISGF) and India Energy Storage Alliance (IESA) convened a Panel Discussion on Electric Vehicles, Energy Storage and Charging Infrastructure for AEEE Member companies and regional stakeholders in Electric Vehicles (EVs) and charging infrastructure. The purpose of the discussion hosed on 26 July 2018 in Bangalore was for AEEE Members to deliberate on Electric Mobility and relevant technologies and infrastructural issues. The event was a reiteration of AEEE’s interest and commitment towards new technologies, smart grid, smart cities and transportation, all of which are anchored in energy efficient systems and processes that contribute to India’s economic development. The emergent EV and related energy storage and infrastructure are frontier segments where sweeping changes are anticipated. AEEE aims to be an enabler at the centre of this dynamic scenario by networking with key partners such as ISGF and IESA.

**16th Round of South Asia IPMVP Training and Exam on Certified Measurement and Verification Programme (CMVP)**

AEEE conducted three Training and Certification Programs in Delhi, from 26 to 28 July 2018. The training program was designed in conjunction with Efficiency Valuation Organization (EVO) and the Association of Energy Engineers (AEE). The participants at the training represented a wide range of large Corporate entities as well as small consulting companies and individual auditors.

With the increasing adoption and mandating of PAT (Perform Achieve and Trade) Scheme to raise the energy efficiency standards in large industry designated consumers, as well as adoption of ECBC standards and codes at the level of states, M&V expertise is in demand, and AEEE is helping to build the expertise across the country and industry. AEEE is the only partner organisation of AEE in India to conduct CMVP training.

**Sustainable and Smart Space Cooling Coalition Meetings**

- Under the Sustainable and Smart Space Cooling Coalition Project, AEEE conducted a Roundtable meeting with key Stakeholders on 20 November 2018 in New Delhi.
- Under the Sustainable and Smart Space Cooling Coalition Project, AEEE conducted a Roundtable meeting of key Stakeholders on 5 December 2018 in New Delhi.

**KASSIA-AEEE Seminar on Energy Efficiency for Business Competitiveness**

A seminar was hosted on “Energy Efficiency for Business Competitiveness”, organised by Karnataka Small Scale Industries Association (KASSIA), in association with AEEE in February 2019, Bangalore. The event was inaugurated by Shri Ravikumar, IAS, Addl. Chief Secretary, Department of Energy, Govt of Karnataka, and presided by Shri Basavaraj S. Javali, President, KASSIA.
AEEE webinars are a convening platform to engage in dialogue with policy makers, associations, institutions and multilateral/bilateral organisations for wider market transformation centered exclusively on Energy Efficiency in India. Following webinars were held during 2018-19, that saw active participation from EE practitioners.

Webinars on Demand Side Management: A Critique of Relevance and Opportunity for DISCOMs held on 13 August 2018

Speaker: Dr. Mahesh Patankar, Managing Director, MP Ensystems Advisory Private Limited (Member of AEEE)

The Government of India has launched a number of programs to improve the availability of power and reduce carbon emissions from the power sector in India. Demand Side Management (DSM) at the consumer side of the meter is a key resource for power utilities to meet both these objectives. However, despite 16 states being notified of DSM Regulations, utility-driven DSM has been sub-optimal, due to factors such as focus on financial and technical losses and the perceived impact of DSM on revenue.

MP Ensystems, under a contract from SHAKTI Sustainable Energy Foundation, has conducted research on various aspects of Demand Side Management (DSM) and developed a compendium of four papers. This webinar delved into the findings of the papers on the following topics:

- Perform Achieve Trade Scheme and its Alignment with DSM
- Analysis of Financial Health of DISCOMs
- Agriculture DSM- New Delivery Mechanisms
- Retail Competition and Load Management Certificates in India

Webinars on Global Cooling Prize

February 2019: A webinar where Ankit Kalanki from Rocky Mountain Institute and Yash Shukla from CEPT University presented the Prize Criteria and answered questions from those in attendance.

March 2019: Announcement from the Global Cooling Prize team on the Detailed Technical Application for the prize on launching. The application form after assessment by the Technical Review Committee will award up to 10 breakthrough cooling technologies $200,000 (USD) each to develop their prototypes for the final testing phase of the prize.
### AEEE Events & Training Calendar April to March 2018-19

<table>
<thead>
<tr>
<th>No</th>
<th>Event Type</th>
<th>Theme</th>
<th>Venue</th>
<th>Date</th>
<th>Participants</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Exhibition</td>
<td>Business opportunities for our ESCOs Members CAHOCON Exhibition for Hospitals on Energy Efficiency</td>
<td>Chennai</td>
<td>6-8 Apr</td>
<td>40</td>
</tr>
<tr>
<td>2</td>
<td>Business Meet</td>
<td>Promoting ESCO based ESPC based projects for end consumers of BYPL and Members</td>
<td>New Delhi</td>
<td>24 Apr</td>
<td>101</td>
</tr>
<tr>
<td>3</td>
<td>Exhibition</td>
<td>AEEE Stall at World Environment Day</td>
<td>New Delhi</td>
<td>2-5 June</td>
<td>WED</td>
</tr>
<tr>
<td>4</td>
<td>Members Meet</td>
<td>AEEE Members and Partners Meet</td>
<td>Mumbai</td>
<td>15-Jun</td>
<td>29</td>
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<tr>
<td>5</td>
<td>Business Meet</td>
<td>promoting ESCO based ESPC based projects for end consumers of Tata Power DDL and Members</td>
<td>New Delhi</td>
<td>20 June</td>
<td>67</td>
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<tr>
<td>6</td>
<td>Strategy Meeting</td>
<td>AEEE Strategic Retreat</td>
<td>New Delhi</td>
<td>20-Jul</td>
<td>20</td>
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<tr>
<td>7</td>
<td>Panel Discussion on EV</td>
<td>AEEE-ISGF Panel Discussion on Bangalore Preparing the Grid for the 21st Century Challenges</td>
<td>New Delhi</td>
<td>26-Jul</td>
<td>30</td>
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<tr>
<td>8</td>
<td>Training</td>
<td>16th Round Certified M&amp;V Professional Training &amp; Exam</td>
<td>Bangalore</td>
<td>26-28-Jul</td>
<td>17</td>
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<tr>
<td>9</td>
<td>Roundtable</td>
<td>Workshop on Enabling Energy Services Performance Contracts Catalysing the ESCO Market Through Business Facilitation</td>
<td>Bangalore</td>
<td>27-Jul</td>
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<tr>
<td>10</td>
<td>Launch Event</td>
<td>Release of first report on State Energy Efficiency (EE) Preparedness Index</td>
<td>New Delhi</td>
<td>1-Aug</td>
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### AEEE Convenings

<table>
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<tr>
<th>No</th>
<th>Event Type</th>
<th>Theme</th>
<th>Venue</th>
<th>Date</th>
<th>Participants</th>
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</thead>
<tbody>
<tr>
<td>11</td>
<td>Launch Event</td>
<td>Launch of the Green Vehicle Rating for 2 and 3-wheelers: India’s 1st vehicle rating system based on environmental performance</td>
<td>New Delhi</td>
<td>28-Aug</td>
<td>33</td>
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<tr>
<td>12</td>
<td>IGF Report Launch</td>
<td>Release of Reports on Cooling Demand and Energy Efficiency Potential in India</td>
<td>New Delhi</td>
<td>4-Oct</td>
<td>Supporting Partner of IGF</td>
</tr>
<tr>
<td>13</td>
<td>Launch Event</td>
<td>Launch of Global Cooling Prize (GCP)</td>
<td>New Delhi</td>
<td>12-13-Nov</td>
<td>172</td>
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<tr>
<td>14</td>
<td>Roundtable</td>
<td>Sustainable and Smart Space Cooling Coalition Meeting</td>
<td>New Delhi</td>
<td>20-Nov</td>
<td>23</td>
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<tr>
<td>15</td>
<td>Roundtable</td>
<td>Sustainable and Smart Space Cooling Coalition Meeting</td>
<td>New Delhi</td>
<td>5-Dec</td>
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<td>16</td>
<td>GCP Regional Meet</td>
<td>Global Cooling Prize (GCP) regional meet</td>
<td>Mumbai</td>
<td>11-Dec</td>
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<tr>
<td>17</td>
<td>GCP Regional Meet</td>
<td>Global Cooling Prize (GCP) regional meet</td>
<td>Chennai</td>
<td>13-Dec</td>
<td>35</td>
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<tr>
<td>18</td>
<td>Business Meet</td>
<td>KASSIA-AEEE Seminar on Energy Efficiency for Business Competitiveness</td>
<td>Bangalore</td>
<td>12-Feb</td>
<td>60</td>
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<tr>
<td>19</td>
<td>Webinar</td>
<td>Webinar on Global Cooling Prize</td>
<td>Online</td>
<td>20-Feb</td>
<td>Supporting Partner of RMI</td>
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<tr>
<td>20</td>
<td>Webinar</td>
<td>Webinar on Global Cooling Prize</td>
<td>Online</td>
<td>22-Feb</td>
<td>Supporting Partner of RMI</td>
</tr>
</tbody>
</table>
AEEE has on board domain experts and dedicated professionals who are actively engaged in taking AEEE to the next level.

Dr Satish Kumar, President and Executive Director

Dr Koshy Cherail, Director

Sudha Setty, Director

Sneha Sachar, Senior Programme Lead

Sangeeta Mathew, Programme Lead

Shyamasis Das, Principal Research Associate

Sandeep Kachhawa, Senior Research Associate

Deepak Tewari, Senior Research Associate

Chandana Sasidharan: Senior Research Associate

Mohini Singh, Senior Research Associate

Akash Goenka, Research Associate

Bhawna Tyagi: Research Associate

Neha Yadav, Research Associate

Akshay Pandey, Research Associate

Gerry George, Research Associate

Saikiran Kasamsetty, Research Associate

Swati Lal, Office Manager

Debashis Chakraborty: Manager - Finance & Compliance

Sumit Sharma, Assistant Manager Accounts

Bhairav Sharma, Executive Officer
# Financials 2018-19

## Balance Sheet as at 31st March 2019

### Liabilities

<table>
<thead>
<tr>
<th>Note</th>
<th>Amount (Rs)</th>
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<tr>
<td>Capital Account</td>
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<td>Corpus Fund</td>
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<td>Capital Grant Reserve</td>
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<tr>
<td>Current Liabilities</td>
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<tr>
<td>Sundry Creditors &amp; Other Payables</td>
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<tr>
<td>Duties &amp; Taxes</td>
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</tr>
<tr>
<td>Grant Balances</td>
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</tbody>
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### Income & Expenditure

- Opening Balance: 73,68,231
- Add: Excess of Income over Expenditure for the Current Year: 27,30,922
- Less: Appropriation towards Corpus Fund: 16,51,000
- 8,89,20,569 Total

### Assets

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<tr>
<th>Note</th>
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<td>Fixed Assets</td>
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<tr>
<td>Investments</td>
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<td>Fixed Deposits (Corpus Fund)</td>
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<tr>
<td>Current Assets</td>
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<td>Interest accrued on FDR</td>
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<td>Security Deposits</td>
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<td>Other Current Assets</td>
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<td>TDS Receivable</td>
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<td>Other Advances</td>
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<td>Income Receivables</td>
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### Total

8,89,20,569

---

As per our report of even date

For Singh K V Gupta & Co
Chartered Accountants
(FRN 0001331N)

CA Rakesh K Agarwal
Partner
M.No. 085908

Place: New Delhi
18 JUL 2019

For Alliance for an Energy Efficient Economy

Chairperson
Executive Council
Alliance For an Energy Efficient Economy

Chairman

Secretary

Chairperson
Executive Council
Alliance For an Energy Efficient Economy

Secretary
# ALLIANCE FOR AN ENERGY EFFICIENT ECONOMY

## INCOME AND EXPENDITURE ACCOUNT FOR THE YEAR ENDED 31ST MARCH 2019

### EXPENDITURE

<table>
<thead>
<tr>
<th>Non-FCRA Project Related Direct Expenditure</th>
<th>Note</th>
<th>Amount (Rs.)</th>
<th>Income</th>
<th>Note</th>
<th>Amount (Rs.)</th>
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<td>Professional Services Contract (Oracle)</td>
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<td>Professional Services Contract-ACTECE</td>
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<td>NRDC</td>
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<td>IEA</td>
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<td>LBCL</td>
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<td>SEEF-Cell</td>
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<td>SEFC-CAI</td>
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<td>Global Cooling Project - DST</td>
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<td>Smart Cities Initiative</td>
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<td>30,82,983</td>
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### FCRA Project Related Expenditure

<table>
<thead>
<tr>
<th>Non-FCRA Projects Receipts &amp; Grants</th>
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<td>BSCL</td>
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<td>Spur Cooling 2</td>
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<td>DSN Newsletter</td>
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<td>Affordable Housing</td>
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<td>OAS-Cell-Guard</td>
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<td>SEEF-Electrical Vehicle</td>
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<td>SEEF-ICAP</td>
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<td>MacArthur</td>
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### Administrative Expenditure

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<tr>
<th>Item</th>
<th>Note</th>
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<td>Salary</td>
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<tr>
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<td>Travel Expenses</td>
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<td>Other Income</td>
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<td>Communication Expenses</td>
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<td>Conveyance</td>
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<tr>
<td>Decentiation</td>
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<td>7,41,099</td>
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<tr>
<td>Rates and Taxes</td>
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<td>5,442</td>
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<tr>
<td>Meeting and Conference</td>
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<td>1,81,326</td>
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<tr>
<td>Staff Capacity Building Bops</td>
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<tr>
<td>Misc. Exp.</td>
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<td>Office Expenses</td>
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<td>Office- Rent</td>
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<td>22,522</td>
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<td>Office &amp; IT Maintenance</td>
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<td>Legal &amp; Accounting</td>
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<td>8,560</td>
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<td>Reports/Books Exps</td>
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<td>Package &amp; Catering Expenses</td>
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<td>Bank Charges</td>
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<tr>
<td>Interest on TDS</td>
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<tr>
<td>Committee &amp; Members Meeting Expenses</td>
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<td>73,319</td>
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<tr>
<td>Accounts Written Off</td>
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<td>10,997</td>
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<td>Posting and Stationary</td>
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<td>Staff Welfare Expenses</td>
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<td>CMAT Training &amp; Certification</td>
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<tr>
<td>Eros &amp; Income over Expenditure</td>
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<td>27,30,952</td>
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### Total

|                             |      | 6,38,26,173  |

As per annum report of each date

For Alliance for an Energy Efficient Economy

Chairperson

CEO

CA. Ratish K Agrawal
Partner

M.No. 089989
Place: New Delhi
Dated: 18 JUL 2019

Annual Report 2018–19
## Financials 2018-19

### Receipts and Payments Account for the Year Ended 31st March 2019

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<thead>
<tr>
<th>Head(s)</th>
<th>Amount (₹)</th>
<th>Payments</th>
<th>Amount (₹)</th>
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<td><strong>Receipts</strong></td>
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<td><strong>Payments</strong></td>
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<td>Operating Cash &amp; Bank Balances</td>
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<td>Profit Related Income &amp; Grants</td>
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<td>From AGBA Monies</td>
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<tr>
<td>Non FCRA Projects</td>
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<tr>
<td>Project Related Direct Expenditure</td>
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<tr>
<td>From FCRA Projects</td>
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<tr>
<td>Membership Fees Received</td>
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<tr>
<td>Other Income</td>
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<tr>
<td>Interest Received on FD</td>
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<td></td>
<td></td>
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<tr>
<td>Interest &amp; Other Income</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>CMV Training &amp; Certification</td>
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<td>CMV Renewal Certificate</td>
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<td>Corporate Donations</td>
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<td>GST Received</td>
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<tr>
<td>TDS Recovered</td>
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<tr>
<td>Total</td>
<td>15,98,927</td>
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<td>15,98,927</td>
</tr>
</tbody>
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### Notes

For Singh K V Gupta & Co.
Chartered Accountants
P.H No. 001619

For Alliance For an Energy Efficient Economy
Chairperson
Executive Council

Satish Kumar
Secretary
Chairman

CA Anand & Partners
M.No. 265416

Place: New Delhi
Date: 18 Jul 2019

32 Annual Report 2018-19