

AEEE ANNUAL REPORT 2014-15



An Energy Efficient India

Alliance for an Energy Efficient Economy
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Table of Contents

Members of AEEE.....	3
Executive Council.....	6
Activities and Member Engagements.....	7
Projects at AEEE.....	11
AEEE Secretariat.....	14
Summary of Budget 2015-16.....	15

Members at AEEE 2014-15

AEEE members represent various segments of the energy efficiency industry - Technology, Equipment and Service providers and as well as end-users of energy, committed to energy efficiency. AEEE members also include reputed research and academic organizations. AEEE has a participatory approach involving members and seeking guidance from its knowledge partners and peer organizations.

LARGE CORPORATE MEMBERS

1	Grundfos Pumps India Pvt. Ltd.	www.grundfos.com
2	Schneider Electric India Pvt. Ltd.	www.schneider-electric.co.in
3	SKF India Limited	www.skfindia.com
4	Siemens Limited	www.siemens.com/buildingtechnologies

AEEE was launched on 7 Nov 2008 by Conzerv Systems, Grundfos Pumps, Schneider-Electric & Thermax Ltd and USAID ECO-III Project Partners – International Resources Group and Alliance to Save Energy

UTILITIES AND GOVT ORGANIZATIONS

5	Bangalore Electricity Supply Co Ltd (BESCOM)	www.bescom.org
6	Energy Efficiency Services Limited (EESL)	www.eesl.co.in
7	NPC-Centre of Excellence Training in Energy Efficiency (CETEE)	www.cetee.in
8	Tata Power Delhi Distribution Ltd.	www.ndpl.com

MEMBERS

9	Academy for Conservation of Energy	www.syguruace.com
10	AECOM India Pvt. Ltd.	www.spectralservices.net
11	A.T.E. Enterprises Pvt. Ltd.	www.ateindia.com
12	Alien Energy Pvt. Ltd.	www.alienenergy.in
13	Alternative Futures	www.alternativefutures.org.in
14	Amplebit Energy Solutions Pvt. Ltd.	www.amplebitenergy.com
15	Athena Infonomics India Pvt. Ltd.	www.athenainfonomics.in
16	CEPT University	www.cept.ac.in
17	Ckinetics Consulting Services Pvt. Ltd.	www.cKinetics.com

18	Customized Energy Solutions	www.ces-ltd.com
19	Consul Energy Pvt. Ltd.	www.consulenergy.com
20	Development Environenergy Services Limited	http://www.deslenergy.com/
21	E-CUBE Energy Trading Pvt Ltd	www.eetpl.in
22	Energy Tech Consultants Pvt. Ltd.	www.energytechconsultants.net
23	Emergent Ventures India	www.emergent-ventures.com
24	Ecoaxis Systems Pvt Ltd.	www.ecoaxisindia.com
25	GP Green Energy Systems Pvt. Ltd.	www.gpgreenenergy.com
26	International Institute for Energy Conservation (IIEC) India	www.iiec.org
27	IKN Engineering India Pvt. Ltd.	www.ikn.eu
28	IT Power Consulting Pvt. Ltd.	www.itpower.co.in
29	MP Ensystems Advisory Pvt. Ltd.	www.mpensystems.com
30	Paharpur Business Centre	www.pbcnet.com
31	Pankaj Power Solutions Pvt. Ltd.	www.pankajpower.com
32	ps Collective	www.ps.collective.in
33	See Tech Solutions Pvt. Ltd.	www.letsconserve.org
34	Skyshade Daylights Pvt. Ltd.	www.skyshadedaylights.com
35	Tide Technocrats	www.tidetechnocrats.com
36	Unidyne Energy Environment Systems Pvt. Ltd.	www.unidyne-energy.com
37	UVK Krishna Mohan Rao Associates	www.uvka.net
38	Wipro Eco Energy	www.wiproeconenergy.com

ASSOCIATES

39	Exalt Sustainable Energy and Automation Services	www.exaltesco.com
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EVENTS/PROJECT PARTNERS

1	Bharat Bijlee Pvt. Ltd.	www.bharatbijlee.com
2	FL Smidth Pvt. Ltd.	www.flsmidth.com
3	Forbes Marshall	www.forbesmarshall.com
4	Karnataka Renewable Energy Devt. Ltd	www.kredle.kar.nic.in
5	Society of Energy Engineers & Managers	www.energyprofessional.com
6	Deloitte Touche Tohmatsu India Pvt. Ltd.	www.deloitte.com
7	PricewaterhouseCoopers (PWC)	www.pwc.com

MOU PARTNERS

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|---|--|--|
| 1 | Association of Energy Engineers-Delhi NCR | www.aeecenter.org |
| 2 | Alliance to Save Energy | www.ase.org |
| 3 | cKinetics / Sustainability Outlook | www.ckinetics.com |
| 4 | Institute of Sustainable Communities, Vermont, USA | www.iscvt.org |
| 5 | Lawrence Berkeley National Laboratory | www.lbl.gov |
| 6 | PManifold Business Solutions for India Utility Knowledge | www.pManifold.com |
| 7 | American Council for an Energy Efficient Economy | www.aceee.org |

AEEE AFFILIATIONS

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|----|---|--|
| 1. | Efficiency Valuation Organization (EVO) | www.evo-world.org |
| 2. | Indian Green Building Council (IGBC) | www.igbc.in |
| 3. | Confederation Indian Industry (CII) | www.cii.in |
| 4. | Madras Management Association Chennai (MMA) | www.mmachennai.org |

Executive Council 2014-15

Dr. Satish Kumar
AEEE Chairperson
Schneider Electric India

Mr. Upendra Bhatt
AEEE Vice Chairperson
cKinetics

Mr. Ashish Rakheja
AEEE Treasurer
AECOM India

EC Members

Mr. Ranganath N Krishna
AEEE Immediate Past Chairperson
Grundfos Pumps India

Ms. Hema Hattangady
AEEE First Chairperson
Schneider-Electric /Conzerv India

Mr. Shishir Joshipura
SKF Limited

Mr. Mahesh Patankar
MPENSYSTEMS

Dr. Koshy Cherail
Secretary of Executive Council

Mr. S Padmanaban
Strategic Energy, Water & Environment
Expert (*past Dir. USAID SARI/E*)

Mr. Milind Chittawar
See-Tech Solutions Private Ltd.

Mr. Rajmohan Rangarajan
DESL Energy

Mr. Devidas Kulkarni
Siemens

Activities and Member Engagement

1. Training & Workshops

AEEE trainings and workshops are designed to offer a full spectrum of technical energy efficiency knowledge and hands on industrial experience.

Certified Measurement and Verification Professional (CMVP)

The 9th CMVP training and Exam was held in Delhi from 4-6 September, 2014. The 2.5-day training programme provided a robust understanding of International Performance Measurement and Verification Protocol (IPMVP), a worldwide M&V standard. The programme was organized by AEEE. IPMVP and the CMVP are proprietary of Efficiency Valuation Organization (EVO). AEEE is the international partner to EVO for South Asia, South East Asia and West Asia. The training was conducted by EVO-certified CMVP Trainers.

Stakeholder workshop of BEE rating of schemes for hospitals building

On behalf of the Bureau of Energy Efficiency, Government of India, AEEE conducted Stakeholders Consultation workshop on “Energy Efficiency Star Labelling for Hospital: High priority in Government’s 100-days Agenda” on 20 June 2014. The workshop was convened by Bureau of Energy Efficiency, Ministry of Power, Government of India and was organised by AEEE and supported by Shakti Sustainable Energy Foundation. The consultation called upon the stakeholders which included Facility and Building Managers from private and government hospitals, hospital associations, consultants and ESCOs working specifically in hospitals and buildings sector. The consultation aimed to disseminate information about the launch of star labelling program for the hospital by the government.

Conference cum exhibition on promoting energy efficiency and green energy in hospitality and healthcare industry

PHD Chamber and Punjab Energy Development Agency (PEDA) in association with AEEE and Petroleum Conservation Research Association (PCRA) organized a conference on “Promoting Energy Efficiency and Green Energy in Hospitality and Healthcare Industry” on 18 July 2014. The event was organised to raise the level of awareness on reducing energy consumption and promoting energy efficiency among the hotel and hospital administrators & chief engineers. The programme also aimed to inspire them to implement energy conservation programme and install renewable energy systems in their facilities.

Model ESCO Contracts for Industry Energy Efficiency Projects

AEEE organized the conference on “Developing ESCO Performance Contracts for Industrial Projects” on 25th July 2014. The conference brought together ESCOs, policy-makers, researchers and experts to overview and discussed the barriers faced in performance contracting, the reasons and potential solutions to foster the Indian ESCO market. The project was supported by Shakti Foundation

Chairman’s visit to RENAC, Berlin

September AEEE's Chairman's Dr Satish Kumar was invited by RENAC in Berlin, Germany for the event "Energy Efficiency - made in Germany" 30 September, 2014. He presented the policy scenario and business opportunities in India to the German's businesses and key government departments. The event was an opportunity for AEEE to develop partnership with German industry and businesses.

Revamp of AEEE website

AEEE website was revamped and launched with new interactive features like member corner, EE news & announcements, upcoming events. The website is aimed to function as an energy efficient portal providing all energy efficiency market updates to the users.

2. Webinars

AEEE webinars are convening platform to engage in dialogue with policy makers, associations, institutions and multilateral, bilateral organization for wider market transformation centred exclusively on energy efficiency in India.

The webinars on following topics were conducted:

- Challenges in ECBC Implementations in India by Professor Roshni Udyavar Yehuda, Rachna Sansad's Institute of Architecture.
- Webinar on Energy Efficiency Delegation from Germany by Mr Frank Hoffman, Indo German Chamber of Commerce and Ms. Simona Capobianchi, Renewable Energy Academy (RENAC).
- Utility-affiliated ESCOs: Types of Business Models and Learning from International Experience by Mr. Dilip Limaye, SRC Global Inc.
- Opportunities for financing ESCO projects by Dr. Bhaskar Natrajan, Deputy Chief of Party – Energy Efficiency, PACE-D TA Program and Mr. Arvind MT, Director, Amplebit Energy Mr MT Arvind.

- Risk Mitigations of Energy Efficiency Projects by Dr. Bhaskar Natarajan, DCOP-EE, USAID PACE-D TA Program, Vineet Banthia, Wipro EcoEnergy and Mr. Mohan Iyer, Unidyne.
- Outlook for the second cycle of the Perform Achieve and Trade Scheme: Understanding the Designated Consumer Viewpoint by Ms. Roselin Dey, cKinetics.

3. Partnered Events

AEEE partnered and had MoUs with the organizations like Alliance to Save Energy, Inter Solar and IESA to enable India's energy efficiency stakeholders to convene on a common platform to actively participate and support energy efficiency policy development.

India Energy Storage Alliance (IESA) 2014

IESA 2014 was held in Delhi from 4th - 5th December. AEEE was the key partner to the Conference & Exhibition. The theme of the 2nd conference was "Re-Imagining India's Energy Infrastructure" and focused on various applications where energy storage and micro-grid technologies will help India leapfrog the energy infrastructure development.

ckinetics Parivartan Awards 2014

AEEE was an Industry Partner for the 4th Parivartan Sustainability Leadership Awards 2014. Parivartan Sustainability Leadership Awards 2014 aim to recognize and showcase efforts that shape conservation action, innovation and corporate leadership in sustainability.

Seminar on Energy Efficiency in the Process Industry Expert Presentations & Showcasing of German Technologies

The Indo-German Chamber Commerce (IGCC) together with the Renewables Academy (RENAC) organized a delegation visit of German companies focusing on Energy Efficiency in the Industry. AEEE was partner to the "Seminar on Energy Efficiency in the Process Industry Expert Presentations & Showcasing of German Technologies", 18th November 2014, Pune.

Energy Efficiency Global forum 2014

EE Global Forum 2014, took place in May 20-21, 2014 in Washington, D.C., was the leading international energy efficiency event, drawing hundreds of delegates to its Plenary



sessions. AEEE was partner to the EE Global Forum 2014. AEEE members were provided with an opportunity to join energy efficiency influencers from around the world for the robust debate, partnership-building, and idea-sharing needed to drive the next generation of energy efficiency.

InterSolar India Exhibition and Conference

InterSolar India in partnership with AEEE conducted exhibition and conference for the solar industry. The event took place on November 18- 20, 2014 at Mumbai.

Energising Gurgaon through Solar

Gurgaon First conducted a workshop Energising Gurgaon through Solar on 25 February 2015, that aims to help Gurgaon improve its sustainability quotient and reduce its pollution levels through adoption of solar energy. AEEE was an Energy Efficiency partner for the event

Launch of PAT Market Brief: Outlook for the second cycle of the PAT Scheme: Understanding the DC Viewpoint

Sustainability Outlook and Alliance for an Energy Efficient Economy (AEEE) have compiled Market Brief to capture; Impact of operationalizing the PAT Scheme from the perspective of Designated Consumers (DCs) with a sectoral deep dive on pulp and paper, cement, iron and steel sectors. The brief also covered outlook for the second cycle of PAT from DC perspective with a focus on using Energy Saving Certificates (ESCerts) to build an internal business case. Over the next few months, AEEE and Sustainability Outlook are working together to highlight and address the resource efficiency challenges being faced by the Indian industry.

Projects at AEEE

Market Assessment for Partial Risk Guarantee Fund & Venture Capital Fund for Energy Efficiency

The Government of India (GOI) provides for two fiscal instruments, the Partial Risk Guarantee Fund and Venture Capital for Energy Efficiency for increasing access to EE financing in the country. Alliance for an Energy Efficient Economy (AEEE) with support from the Partnership to Advance Clean Energy - Deployment Technical Assistance (PACE-D TA) carried out a market assessment to assess the responses to the above schemes. The objective of this assignment was to identify a pipeline of projects based on data as is available with ESCOs, for PRGFEE and VCFEE and identify potential issues that ESCOs see as constraining the growth of the industry. The study was carried out with the broad objective of assisting BEE and other relevant Indian policymakers, and provides inputs to the existing fiscal instruments – PRGFEE and VCFEE.

Developed Model ESCO Contracts EPC for Industry Energy Efficiency Projects

To foster the development of the ESCO Industry, AEEE has developed a set of documents – a standard Energy Performance Contract (EPC) document and a Measurement & Verification template. The project was supported by Shakti Sustainable Energy Foundation (SSEF). The aim of this standard performance contract is to provide a consistent basis to negotiate an energy performance contract between the customer and the ESCO. The document provides a mechanism intended to cover the rights and obligations of both parties for implementing an energy performance contract. The M&V planning template has been developed to assist M&V planners incorporate the various design elements.

AEEE has worked on some key areas by assisting ESCOs through capacity building, preparation of agreements and assisting in third party financing, as per the requirements of the project. The report developed by AEEE builds on and summarizes the first results of ESCO projects, both on going and completed. It gives a step-wise methodology for developing performance contracts, highlighting key challenges and barriers for EPC contracting and how these issues can be addressed; by running through the project development process, and showcasing examples and tips in the preparation of successful performance contract documents.

Business model for Utility-Affiliated ESCOs

AEEE developed a framework business plan for utilities to enter into affiliation with energy service companies in India. The project was supported by Shakti Sustainable Energy Foundation. It provides guidance on different components of a business plan, such as market analysis, product outline, organization & management, marketing strategies, funding sources, and financial planning. The project aimed to develop a business model for power utilities or distribution companies (DISCOMs) to operate an ESCO under its jurisdiction or for a utility provider to work with an ESCO to provide energy efficiency services in the utility's jurisdiction.

Under this project, AEEE explored and developed a business plan for utility-affiliated ESCOs in India. The utility-owned ESCO concept is more established in countries like the United States and China. The motivation for utilities to establish ESCO subsidiaries in these countries varies compared to that in India.

Evaluating Market Response to Appliances Standards and Labelling (S&L) Programme

The study conducted by AEEE evaluates the performance of the S&L programme by assessing the market penetration of a few selected appliances and equipment notified under BEE's S&L Programme. The project was supported by Shakti Sustainable Energy Foundation. It analysed the gaps and barriers impacting the adoption of the S&L programme, and provided recommendations to improve the adoption of the S&L programme. The long-term goal of this study is to assist policy makers to identify strategies for maximizing the benefits from the S&L programme.

Developing Incentive Package for Scaling-up the S&L Markets for 5-star rated Appliances and Equipment in India

The project is supported by Shakti Sustainable Energy Foundation. The objective of this study is to develop recommendations for accelerating India's S&L programme by identifying an incentive framework that can catalyse larger market transformation for higher star-labelled appliances and products, using Renewable Energy sector as an example. The report is being compiled after taking inputs from various stakeholders.

Application Guide for M&V in Street Lighting

The M&V Application Guide for Street Lighting Projects has been developed to aid urban local bodies and project developers in implementing energy efficiency projects for street lighting. It was developed while taking into account the current street lighting scenario in India, and more specifically, the gaps in M&V for energy efficiency projects in street lighting. The project was supported by International Institute for Energy Conservation (IIEC), Energy Efficiency Services limited (EESL) and World Bank. The final report is being revised after taking the feedback from the stakeholders.

AEEE Secretariat 2014-15

The AEEE Secretariat is headed by Dr Koshy Cherail. The core team and ex-staff is listed below who had been the part of the project and activities at AEEE.

Core Team at AEEE

Dr. Koshy Cherail, President
Ms. Sangeeta Mathew, Programme Manager
Ms. Aastha Kukreti, Manager- Advocacy & Outreach
Mr. Bhairav Sharma, Executive Officer

Staff prior 31 December 2014

Mr. Ramesh Bhatia
Ms. Reshmi Vasudevan
Mr. Ashwin Jayaram
Mr. Vishal Goyal
Mr. Vijay Vishawnathan

Summary of Budget 2015-16

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ALLIANCE FOR AN ENERGY EFFICIENT ECONOMY

Projected Revenue for 2015-16	Rs 80,00,000
a) ESCO Roadshow to Promote EPC (SSEF Grant Rs 50,65,000) to FCRA A/c Advance Net Revenue for AEEE	5,00,000
b) Membership	20,00,000
c) Other Probable Revenue Sources	
1. cKinetics/SO PAT Quarterly Brief PAT– AEEE Component	7,00,000
2. EES Fellowship Programme - Net Rev.	10,00,000
3. Members Directory 2015 - Net Rev.	5,00,000
4. M&V Training - Net Rev.	8,00,000
5. EE Conclave - Net Rev.	10,00,000
6. Other Primary activities - Net Rev.	15,00,000
Operating Budget (only for Core organization)	40,00,000
Salaries & Wages	24,00,000
Professional Fees (Accounts+Audit=3.5L, Legal & Compliance=1.5 L)	5,00,000
Other Professional Fees (Website Management, Design & Editing)	4,00,000
Rent and Utilities	5,00,000
Travel & Conveyance	2,00,000