

# AEEE ANNUAL REPORT 2015-16



***An Energy Efficient India***

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## Members at AEEE

### 2015-16

AEEE members represent various segments of the energy efficiency industry - Technology, Equipment and Service providers and 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.	<a href="http://www.grundfos.com">www.grundfos.com</a>
2	Schneider Electric India Pvt. Ltd.	<a href="http://www.schneider-electric.co.in">www.schneider-electric.co.in</a>
3	SKF India Limited	<a href="http://www.skfindia.com">www.skfindia.com</a>
4	Siemens Limited	<a href="http://www.siemens.com/buildingtechnologies">www.siemens.com/buildingtechnologies</a>
5	Infosys Limited	<a href="http://www.infosys.com">www.infosys.com</a>
6	Carrier Airconditioning & Refrigeration Ltd. (UTC Group)	<a href="http://www.carrierindia.com">www.carrierindia.com</a>

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**

7	Bangalore Electricity Supply Co Ltd (BESCOM)	<a href="http://www.bescom.org">www.bescom.org</a>
8	Energy Efficiency Services Limited (EESL)	<a href="http://www.eesl.co.in">www.eesl.co.in</a>
9	NPC-Centre of Excellence Training in Energy Efficiency (CETEE)	<a href="http://www.cetee.in">www.cetee.in</a>
10	Tata Power Delhi Distribution Ltd.	<a href="http://www.ndpl.com">www.ndpl.com</a>
11	REC Power Distribution Company Limited	<a href="http://www.recpdcl.in">www.recpdcl.in</a>

#### **MEMBERS**

12	Alien Energy Pvt. Ltd.	<a href="http://www.alienenergy.in">www.alienenergy.in</a>
13	Amplebit Energy Solutions Pvt. Ltd.	<a href="http://www.amplebitenergy.com">www.amplebitenergy.com</a>
14	CEPT University	<a href="http://www.cept.ac.in">www.cept.ac.in</a>
15	Ckinetics Consulting Services Pvt. Ltd.	<a href="http://www.cKinetics.com">www.cKinetics.com</a>
16	Customized Energy Solutions	<a href="http://www.ces-ltd.com">www.ces-ltd.com</a>
17	Conssul Energy Pvt. Ltd.	<a href="http://www.conssulenergy.com">www.conssulenergy.com</a>
18	Development Environenergy Services Limited	<a href="http://www.deslenergy.com/">http://www.deslenergy.com/</a>
19	E-CUBE Energy Trading Pvt Ltd	<a href="http://www.eetpl.in">www.eetpl.in</a>

20	GP Green Energy Systems Pvt. Ltd.	<a href="http://www.gpgreenenergy.com">www.gpgreenenergy.com</a>
21	International Institute for Energy Conservation (IIEC) India	<a href="http://www.iiec.org">www.iiec.org</a>
22	MP Ensystems Advisory Pvt. Ltd.	<a href="http://www.mpensystems.com">www.mpensystems.com</a>
23	Paharpur Business Centre	<a href="http://www.pbcnet.com">www.pbcnet.com</a>
24	See Tech Solutions Pvt. Ltd.	<a href="http://www.letsconserve.org">www.letsconserve.org</a>
25	Shamar Sustainable Solutions Pvt. Ltd.	<a href="http://www.shamar.in">www.shamar.in</a>
26	University of Petroleum and Energy Studies (UPES)	<a href="http://www.upes.ac.in">www.upes.ac.in</a>
27	Wipro Eco Energy	<a href="http://www.wiproeconenergy.com">www.wiproeconenergy.com</a>
28	GSH Energy Services Private Limited	<a href="http://www.gshgroup.com">www.gshgroup.com</a>
29	Cooflo Engineers Pvt. Ltd.	<a href="http://www.coofloengineers.in">www.coofloengineers.in</a>
30	Covestro (India) Pvt. Ltd.	<a href="http://www.covestro.com">www.covestro.com</a>

### **ASSOCIATES**

#### **(Individual Members)**

1	Ms. D Suganya	Affluent Green, Chennai
2	Ms. R Rajalakshmi	Affluent Green, Chennai
3	Mrs. G Dharakeswari	Affluent Green, Chennai
4	Ms. Sharon E Koshy	Engineer, New Delhi
5	Mr. Philip K Cherail	Engineer, New Delhi
6	Mr. Jaydeep Sarkar	EESL, Noida
7	Mr. Johnson Fernandez	JS Enviro , Mumbai
8	Mr. Ashwin KP	Promethean Energy, Mumbai
9	Mr. Attupurathu Luke	Shamar Solutions, Kerala

### **EVENTS/PROJECT PARTNERS**

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

### **MOU PARTNERS**

1	Association of Energy Engineers-Delhi NCR	<a href="http://www.aeecenter.org">www.aeecenter.org</a>
2	Alliance to Save Energy	<a href="http://www.ase.org">www.ase.org</a>
3	cKinetics / Sustainability Outlook	<a href="http://www.ckinetics.com">www.ckinetics.com</a>
4	Institute of Sustainable Communities, Vermont,	<a href="http://www.iscvt.org">www.iscvt.org</a>

USA

- |   |  |  |
|---|--|--|
| 5 | Lawrence Berkeley National Laboratory  | <a href="http://www.lbl.gov">www.lbl.gov</a>             |
| 6 | PManifold Business Solutions for India Utility Knowledge and Networking 2013 | <a href="http://www.pManifold.com">www.pManifold.com</a> |
| 7 | American Council for an Energy Efficient Economy (ACEEE)                     | <a href="http://www.theaceee.org">www.theaceee.org</a>   |
| 8 | Energy Efficiency Services Limited (EESL)                                    | <a href="http://www.eesl.co.in">www.eesl.co.in</a>       |
| 9 | Lux Veritas  | <a href="http://www.luxveritas.in">www.luxveritas.in</a> |

#### **AEEE AFFILIATION**

- |    |   |  |
|----|---|--|
| 1. | Efficiency Valuation Organization (EVO)     | <a href="http://www.evo-world.org">www.evo-world.org</a>   |
| 2. | Indian Green Building Council (IGBC)        | <a href="http://www.igbc.in">www.igbc.in</a>               |
| 3. | Confederation Indian Industry (CII)         | <a href="http://www.cii.in">www.cii.in</a>                 |
| 4. | Madras Management Association Chennai (MMA) | <a href="http://www.mmachennai.org">www.mmachennai.org</a> |

## Executive Council

### 2015-16

**Dr. Satish Kumar**

AEEE Chairperson

**Mr. Upendra Bhatt**

AEEE Vice Chairperson

cKinetics

**Mr. Ashish Rakheja**

AEEE Treasurer

AECON Consultants

**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

**Mr. Ravi Meghani**

Wipro ESCO Energy

**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. Sanjay Dube**

IIEC

**Mr. Devidas Kulkarni**

Siemens

## Projects at AEEE

### ***Programme to Promote Model Energy Performance Contracts (EPC) to Scale up the ESCO & Energy Efficiency Business in India***

AEEE seeks to promote the adoption of the model EPC for Energy Efficiency projects in India.

The key outcome of the “Programme to Promote Model Energy Performance Contracts (EPC) to Scale up the ESCO & Energy Efficiency Business in India” was the early adoption of standard EPC templates through regional workshops, involving sector experts to support the campaign. The project aimed to provide a deeper understanding of the characteristics of EPC projects, especially critical components such as risk management strategies, conflict resolution and M&V plans, as well as technical, financial and business implications of the same. The project was supported by Shakti Sustainable Energy Foundation (SSEF).

Under the project, AEEE conducted a series of five workshops across India to adopt EPC for Industrial projects. AEEE also conducted National ESCO workshop where learning and key take aways of the workshops were presented.

The principle outcomes and impacts of the programme were:

- Increased adoption of the model EPC and associated M&V template among ESCOs. SIDBI also adopted the model EPC.
- A database of EE projects, practices, systems and professionals.
- A roster of regional experts to support ESCOs across the country.

### ***Planning and Implementation of the 2016 Cleantech Ecosystem Activities India GEF-5 Cleantech Programme for SMEs***

Under the direction of the UNIDO Project Manager, and in close cooperation with the National Project Coordinator and Project Management Unit (PMU) for UNIDO, Alliance for an Energy Efficient Economy (AEEE), as one of the national counterpart executing agencies, was responsible for the successful implementation of the specific activities relating to Global Cleantech Innovation Programme (GCIP). Under the project, UNIDO supported AEEE in organizing workshops to promote Clean Technologies and Energy Efficiency, as well as innovations in these areas in various SME clusters. The workshop saw interaction with SME units to understand the operating statistics (energy use, O&M expenditures, pain points etc) and working conditions, adopted best practices of the industrial units. The main objective of the workshops conducted in Firozabad, Mandi Gobindgarh and Bhopal was to promote and sensitize “Innovation” concept that needs to be clubbed with other important issues such as energy efficiency opportunities, project implementation models and relevant policy measures. AEEE is also conducting Business Clinic for providing training to the SMEs with the theme of energy efficiency.

### ***Stakeholder briefing series on Perform-Achieve-Trade (PAT) scheme***

Alliance for an Energy Efficient Economy (AEEE) and Sustainability Outlook (SO) are working together to develop a quarterly briefing series on PAT with DCs, policy makers, catalysts and industry experts to capture the pulse of the energy efficiency market in India. The objective of this collaboration between Sustainability Outlook and AEEE is to provide evidence based market assessment to present the stakeholder view point, enable higher uptake of PAT through peer learning and incubate industry and policy action on energy efficiency. The first PAT Pulse brief was published on January 2016 the theme Tracking the Perform-Achieve-Trade Scheme for Energy Efficiency. The second PAT Pulse Brief was published in the month of May 2016 with the theme of EE investment opportunity. The third brief was published in the month of June 2016 with the theme of Asset Optimization to Drive the Next Wave of Energy Efficiency in India. AEEE and Sustainability Outlook will be publishing more market briefs with the different themes.

### ***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.



## Workshops

### ***Stakeholders Consultation on National Energy Policy (NEP) with a focus on Energy Efficiency***

NITI (National Institute for Transforming India) Aayog, Alliance for an Energy Efficient Economy (AEEE) and Federation of Indian Chambers of Commerce and Industry (FICCI) organized the Stakeholders Consultation on National Energy Policy (NEP) with a focus on Energy Efficiency on October 27, 2015. The workshop focused on all aspects of energy efficiency, e.g. industrial and building energy efficiency, Standards and Labelling, DSM and various Incentives programme, EE financing and market creation and implementation frameworks with a specific focus on the role of private sector, energy efficient transportation, etc. This is the first time that energy efficiency was considered a part of the mainstream strategy while formulating national energy policy. The inputs from stakeholders were documented in the report submitted to NITI Aayog.

### ***Programme to Promote Model Energy Performance Contracts (EPC) to Scale up the ESCO & Energy Efficiency Business in India***

Under the project, AEEE conducted six national workshops all across India, viz Pune, Bengaluru, Ahmedabad, Chandigarh, Hyderabad, Kolkatta to promote adoption of EPC. AEEE along with SIDBI as a national partner promoted the workshops. AEEE also partnered with SDAs to promote EPC during the workshop. Apart from this, two Multilateral Bilateral organizations stakeholders meeting were conducted to get consultation about the programme. The results of the project was presented during the National ESCO dialogue conducted on March 21, 2016.

## 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:

1. Webinar on Outlook for the second cycle of the Perform Achieve and Trade Scheme: Understanding the Designated Consumer Viewpoint. The speaker of the webinar was Ms. Roselin Dey, Sustainability Outlook. The webinar presented the findings of the Market Brief released jointly with SO and AEEE.
2. Curtain raiser webinar for the Programme to Promote EPC to Scale up the Energy Efficiency Business in India. The speaker of the webinar was Mr. Vinay Deodhar. The webinar gave overview of about the ESCO- EPC training workshops.
3. Webinar on the Programme to Promote Model ESCO-EPC, Bengaluru workshop. The speaker of the webinar was Mr. Vinay Deodhar. The webinar gave overview of about the ESCO- EPC training workshops.
4. Webinar on the Programme to Promote Model ESCO-EPC, Ahmedabad workshop. The speaker of the webinar was Mr. Vinay Deodhar. The webinar gave overview of about the ESCO- EPC training workshops.
5. Webinar on Advanced Energy Storage in India. The speaker of the webinar was Dr. Rahul Walawalkar, India Energy Storage Alliance. The webinar explained various drivers for advanced energy storage in India.
6. Webinar on Cross-Sectoral Learning & Process Innovation will drive India's Energy Efficiency Scheme. The speaker of the webinar was Dr. Satish Kumar, AEEE and Ms. Aparna Khandelwal, Sustainability Outlook. The webinar presented the highlights of the PAT Pulse released in January 2016.
7. Webinar for "Business Opportunity Meeting with ISTSL under 4E (End to End Energy Efficiency) Program". The speaker of the webinar was Mr. Ajay Verma, ISTSL and Mr. Sachin Verma, SIDBI. The webinar provided business opportunities in MSMEs sector.

### ***India Energy Storage Alliance (IESA) 2015***

IESA 2015 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 2015***

AEEE was an Industry Partner for the 5th Parivartan Sustainability Leadership Awards 2015. Parivartan Sustainability Leadership Awards 2015 aim to recognize and showcase efforts that shape conservation action, innovation and corporate leadership in sustainability.

### ***Energy Efficiency Global forum 2015***

EE Global Forum 2014, took place in May 20-21, 2015 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.

### ***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.

## AEEE Secretariat 2015-16

The AEEE Secretariat is headed by Dr Koshy Cherail. The core team is listed below who had been the part of the projects 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

Ms. Richa Kapoor, Manager Information Services & Consulting Editor