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Issue no.: 001

THE ENERGY PULSE

Insight to Efficiency & Sustainability

MESSAGE FROM CHAPTER PRESIDENT



Dear Members,

It is my pleasure to present this **inaugural issue of the newsletter by AEE Pune Chapter**.

This newsletter is an important step towards strengthening communication and knowledge sharing among our members. Through this platform, we aim to highlight chapter activities, technical insights, and initiatives that promote **energy efficiency, sustainability, and professional excellence**.

AEE Pune Chapter aspires to serve as a collaborative forum connecting industry, academia, and professionals to advance best practices and build capacity in the energy sector. We look forward to organizing meaningful technical programs, interactive sessions, and engagement opportunities that add value to our members.

I encourage all members to actively participate and contribute to the growth of the chapter.

This inaugural issue presents a bouquet of topics from **Chapter Highlights** to **Global Developments** in the domain. **Knowledge Corner** shares an interesting case-study to quench the technical quest of the professionals. You would know chapter **Members Achievements & Recognitions** and how to be member of the vibrant and dynamic community of energy efficiency professionals globally.

I extend my sincere appreciation to the managing committee and volunteers for their dedicated efforts in launching this initiative.

Together, let us work towards a more energy-efficient and sustainable future.

Vinay Gadikar,
Chapter President AEE Pune Chapter

MESSAGE FROM AEE PAST PRESIDENT

Energy efficiency is a critical pillar in addressing today's challenges related to energy security, climate change, and economic growth. I would like to congratulate the AEE Pune Chapter on the launch of its Chapter Newsletter, which will serve as an excellent platform to share chapter activities, emerging technology trends, and best practices in the field of energy efficiency.

This initiative will also foster knowledge sharing, provide valuable networking opportunities for members and stake holders and help the chapter create a meaningful and positive impact within the community.

Kaushik Bhattacharjee,
AEE President (2025)

MESSAGE FROM ENERGY MANAGERS HALL OF FAME

Heartiest congratulations to the AEE Pune Chapter on the launch of your inaugural newsletter. There is a well-known proverb that 'morning shows the day,' and the steady progress of this chapter within just a year of its formation is a clear sign of the great heights it will reach. This initiative beautifully aligns with the words of Swami Vivekananda: 'Education is the manifestation of perfection already in man.'

By creating this platform for learning and exchange, Pune Chapter is empowering energy professionals and students to manifest their potential toward our collective sustainability goals. We are reminded his clarion call: 'Arise, awake, and stop not till the goal is reached.' Interestingly, we have the collective 17 SDG goals for 2030 and target to achieve Net Zero by 2070.

Wishing the editorial team and the entire Pune AEE family immense success with this first edition and the journey ahead!

Dr. Binoy Choudhury,
Energy Managers Hall of Fame 2025

CHAPTER HIGHLIGHTS

❖ Official Launch of Logo & Website

Successfully **unveiled the AEE Pune Chapter logo** and launched the new chapter website — marking the formal establishment of our chapter and enhancing visibility for members and stakeholders.

❖ Leadership Engagements

Hosted an insightful **Round Table with the President of AEE International**, Mr. Kaushik Bhattacharjee, bringing global perspectives on energy efficiency and sustainability to local members.

❖ Regional Collaboration

Pune chapter received the Mr. Ayush Adhikari and Mr. Hemant Bhandari from Nepal Chapter during their India visit. In a semi-formal meet over the lunch, there was good interaction between both the young chapters and exchange of thought regarding promotion of energy efficiency and professional development in line with AEE's goals and objectives.



❖ Member Networking & Community Building

Member meetings – November 2025



Active engagements helped cultivate a strong professional community — encouraging collaboration, peer learning, and support among energy professionals in Pune and beyond.

❖ Role in organizing Net Zero Conference

AEE Pune Chapter is actively involved with other AEE chapters in India in preparing for events such as the **Net Zero Conference 2025**, fostering a unified and impactful platform for energy and sustainability discourse.

EVENT REPORT

Initiation of EnConTechWeek (14 Dec to 21 Dec 2025)

AEE Pune Chapter initiated and volunteered to organize a regional event 'EnConTechWeek' during energy conservation week 14 Dec to 21 Dec 2025. A weeklong series of knowledge exchange sessions presented by each chapter in the region were conducted. This will be an annual discourse. A Panel Discussion was conducted in the concluding session on 21 December by Pune chapter.

Panel discussion – Ways to reach Net Zero

We had an engaging exchange of insights in the panel discussion. The distinguished panel consisted of Dr. Rahul Walawalkar (Founder & President, NETRA), Mr. Jayant Shiradkar (Principal Consultant, Galaxy Inc), Mr. Vinay Mulay (Director, Greenflame Pvt Ltd), Dr. Dada Shendage (Associate Director, H2E Power Systems Pvt Ltd) and Mr. Vinit Kulkarni (Co-Founder & CEO, Greenovative Pvt Ltd). The discussion was moderated by Mr. Vinay Gadikar (President, AEE Pune Chapter).

Dr. Rahul Walawalkar opened the session by sharing insights on Net Zero and battery storage policymaking. He highlighted how effective policies can accelerate the Net Zero transition by promoting sustainable mobility and integrating renewable energy through energy storage systems.

Mr. Jayant Shiradkar highlighted how the systems like ISO 50001, ISO 14064, ISO 14068 bridge the gap between the NDCs and the industries. These are helping industries make their operation sustainable

in turn helping to align with sustainability goals by the nations.

Mr. Vinay Mulay took a stock of how energy auditing ecosystem is shaped with regulatory mandate and voluntary market. Sighting the IEA reports, he finds energy efficiency alone has capacity to reduce emissions by 30%.

Dr. Dada Shendage marked the contribution of renewable energy in achievement of NetZero targets. He shared the numbers by which renewable energy is replacing conventional energy usage. His remarks about "what should be called as Green Energy" busted the common beliefs of how people perceive clean energy. Along with prevalent renewable energy technologies he shared his interesting experience in development of green hydrogen and its application.

Mr. Vinit Kulkarni shaded light on how technology is supporting the realization of sustainability and NetZero goals at organization level and how that may be helpful on national and global level. With AI capabilities, he finds compliances will be automated, fastened to help achieve the targets in real-time.

Further in the discussion Mr. Jayant Shiradkar helped to understand what different compliances are and how they need to be complied with. Mr. Vinit Kulkarni makes point that technology is getting ready for all type of compliances. Mr. Vinay Mulay shared the upcoming trends in energy efficiency technology and Dr. Dada Shendage projected the development of Green Hydrogen projects in near future.

In an interesting dialogue, the conflicts like Development Vs Emissions, Simultaneous increase in efficiency and increase in gross energy consumption, Efficiency Vs Renewable Energy were discussed.

Participants asked interesting and insightful questions which were addressed by the panel members. Mr. Jayant Shiradkar sir sited that India is achieving Renewable Energy Targets much before the deadlines and making advance commitments.

While concluding, Mr. Vinay Gadikar mentioned that all the areas like Policy, Systems, Energy Efficiency, Renewable Energy, Data Analytics and IOT infrastructure need to complement each other to attain the gigantic task of containing temperature rise within 2 deg Celsius as that of pre-industrial era.

This concluding session was attended by professionals from all the chapters in the region.

Dr. Binoy Choudhury made concluding remarks for the 8-day long EnConTechWeek by congratulating all the Chapter Leaders in the region and appealed to make it an annual event.

KNOWLEDGE CORNER

Case Study: Hybrid Energy Audit for Guaranteed Energy Savings

Overview

A high-rise public utility complex in Riyadh, Saudi Arabia, spanning 1.5 million sq. ft. (80% air-conditioned), consumed 29.3 million kWh annually. Saudi Energy Efficiency Center, (SEEC) initiated energy saving program in year 2020. SEEC (regulator) mandated 10 years of guaranteed energy savings from the ESCO, which made the precision critical. The ESCO had to identify maximum saving opportunities without overestimating energy savings, which was a challenge. COVID-19 travel restrictions limited the on-site activities; so, energy auditors adopted a hybrid approach to overcome these constraints.

Approach: Hybrid Audit

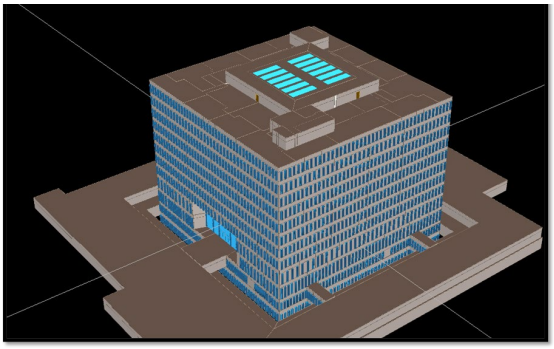
The team combined traditional energy audit methods with Building Energy Modeling (BEM) that included:

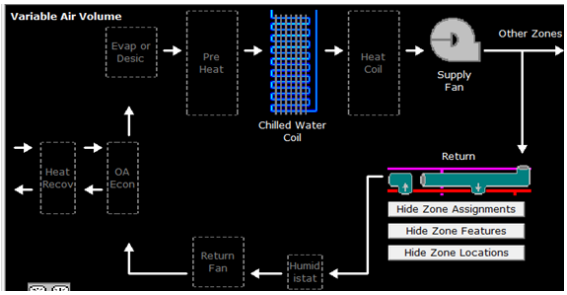
Traditional EA -

- Equipment performance assessment by onsite measurements
- Analysis of historical energy bills

Building Energy Modeling -

- Simulation using construction data, weather profiles, and operational schedules
- Parametric runs to validate baseline and prioritize Energy Conservation Measures (ECMs).





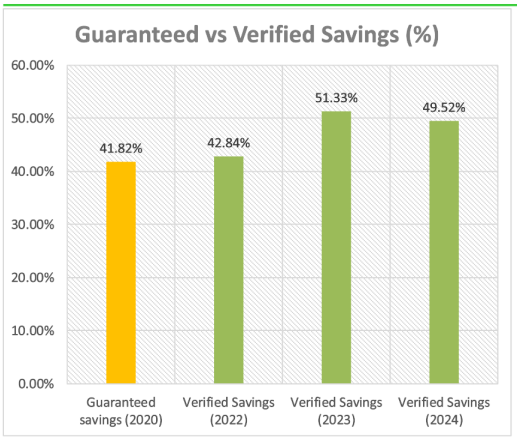
The following Energy Efficiency Measures (EEMs) were identified and were proposed to the regulator with a total projected energy savings of 41.82%.

1. Lighting replacement with occupancy-based controls
2. Pump replacements and VFD retrofits
3. Exhaust fan timer controls
4. Replacement of three old chillers
5. Chiller Plant Manager to ensure optimized operation

The ESCO won the project successfully and implemented the mentioned measures in the following 2 years.

Outcomes

Savings of around 43-51% were achieved in the last 3 years as verified by the regulator.



Hybrid approach provided a high level of accuracy and precision that lowered the risk with respect to financial decisions. Hybrid energy audit approach enabled the auditors to

- Assess the interactive effect of various utilities in the system.
- Review alternate scenarios – simulation with different sequence of EEMs for maximum benefit
- Optimize chiller sizing with precision - considering projected demand reduction due to other EEMs.

Effective Team work of multiple stakeholders such as Regulator, Facility, ESCO, Technology Supplier and the consultants resulted in sustained energy savings with low financial risk. Accurate prediction of energy savings will help to scale up energy saving and sustainability efforts worldwide.

ENERGY NEWS

❖ EU-India FTA and impact on sustainability drive in India

The EU-India Free Trade Agreement will significantly impact the carbon market by requiring Indian exporters to comply with the EU Carbon Border Adjustment Mechanism (CBAM) standards, even without a specific exemption in the agreement.

This pressures India to develop its domestic carbon pricing and monitoring systems to remain competitive. The EU's focus on traceability, quality, and environmental compliance will lead to need for carbon audits, certifications, and supply chain adjustments, potentially impacting industry to be energy efficient and reduce its carbon emissions.

EU may have stringent conditions on exports as other tariffs are expected to reduce under FTA.

India's Green Energy Achievements and Goals

At the World Economic Forum (WEF) 2026, India highlighted that it has achieved 50% of its cumulative installed electricity capacity from non-fossil fuel sources, five years ahead of its 2030 target. The nation is continuing to push for an accelerated transition with a strong focus on solar, green hydrogen, and biofuels.

India achieved 50% of its cumulative installed electricity capacity from non-fossil fuel sources in June 2025, five years ahead of its Paris Agreement commitment for 2030. The country is on track to

reach 500 GW of non-fossil fuel capacity by 2030, with over 260 GW already installed and nearly 50 GW added in the past year.

The government has introduced mandatory energy efficiency star-labeling for more appliances since January 1, 2026, and shifted major industries to a market-based **Carbon Credit Trading Scheme (CCTS)** to drive industrial decarbonization

Energy Factsheets (Till Year 2025)

1. **Non-Fossil Fuel Share:** Non-fossil fuel sources (renewables and nuclear) account for over **51.5%** (approx. **263 GW**) of total installed capacity,
2. **Renewable Energy Capacity:** Reached about **254 GW**, an increase of over 23% in one year, placing India third globally in solar power capacity and fourth in wind and total renewable capacity.
3. **Dominant Source of Power**: Thermal power **(primarily coal)** remains the largest single source, comprising **about 48.5%** of installed capacity and supplying the majority of generated electricity, though its share is declining.

MEMBER ACHIEVEMENTS & RECOGNITIONS

❖ Legends in Energy

Jayant Shiradkar (Legend in Energy 2025) and Vinay Gadikar (Legend in Energy 2024) were felicitated during AEE World at Atlanta USA for their contribution in the domain for energy efficiency and sustainability.

❖ ISO 14064 certification

Chapter members Mridula Kelkar and Vikarm Vartak got certified as Lead Verifier on Green House Gas Accounting based on ISO 14064. This recognizes that they can help organizations as lead verifiers in their decarbonization journey.

UPCOMING EVENTS & ANNOUNCEMENTS

❖ Curtain Raiser for Net Zero Conference 2026

Net Zero India Conference will be organized in Aug 2026. A curtain raiser event is scheduled in April 2026. Further details will be shared on the chapter website and linked in page as we go along.

❖ Chapter Meeting

Members meeting, which is crucial to the professional development and one of the core activity of the chapter, will be conducted in first quarter of year 2026.

ABOUT AEE

The AEE Pune Chapter represents Association of Energy Engineers (AEE)—a global energy-oriented organization based in Atlanta, USA, with over 120 chapters and more than 17,000 certified energy professionals.

The chapter is dedicated to:

- Raising awareness about energy efficiency and sustainability
- Building professional capacity via workshops, seminars, and certifications
- Supporting organizations in reducing energy costs
- A key focus is also contributing toward Net-Zero goals.

Certification Benefits & Professional Growth

- Promotion of globally recognized AEE certifications that enhance career advancement and professional credibility in energy management and auditing.
- AEE certifications such as CEM and CMVP enhance professional credibility across industries and geographies.
- Certification supports progression into senior roles in energy management, sustainability, and ESG.
- You can join an international community of energy professionals for collaboration, mentorship, and career opportunities.

You can gain the expertise to deliver Net-Zero and ESG-aligned projects and play a pivotal role in the green economy.

MEMBERSHIP APPEAL

Are you passionate about energy efficiency, sustainability, and innovation? Whether you're an energy professional, an academician shaping future talent, or a student aspiring to lead in the green economy, AEE offers you:

- Global Recognition – Access internationally acclaimed certifications like CEM, CMVP
- Professional Growth – Enhance your skills and open doors to leadership roles
- Networking – Connect with industry leaders, researchers, and peers worldwide
- Knowledge Sharing – Attend seminars, webinars, and technical sessions
- Impact – Contribute to India's Net-Zero and sustainability goals

MEMBERSHIP

Be part of a global energy movement. Shape the future of sustainable earth.

When you join AEE you gain access to a wide variety of member benefits while participating in an organization that enables your growth and recognizes outstanding professional achievement.

AEE Certifications are globally reputed and facilitate the growth in professional life.

AEE platform hosts enriching events and content like webinars, training, publications for members capacity building

AEE members are opportune to connect with industry peers, experts and leaders.

Link for Membership: https://aeepune.org/index.php/membership.

Chapter Committee and Connect



Vinay Gadikar
President



Jayant Shiradkar
Vice President



Vinay Mulay
Secretary



Prasad Phale
Administrator



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Editorial Team: **Aditi Pathak, Milind Mundlik**

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AEE PUNE CHAPTER: OFFICIAL LAUNCH OF LOGO & WEBSITE



Unveiling of Pune Chapter Logo

Pune Chapter officials welcoming
AEE President for
'Round Table with AEE President'





Roundtable with AEE President



Unveiling of Pune Chapter Logo by AEE President Mr Kaushik Bhattacharjee

AEE PUNE CHAPTER: ACTIVITIES & ACHIEVEMENTS



While receiving ' Legend in Energy' award in AEE World 2025 at Atlanta, USA.

Delegation of Indian Chapters discussing white paper on developments in Asia Subcontinent Region with AEE officials in Atlanta.





Inaugural NetZero Conference at Kolkata, organized by all the chapters in Asia Subcontinent Region