March, 2026

THE ENERGY PULSE

Insight to Efficiency & Sustainability

Issue no.: 002

MESSAGE FROM CHAPTER PRESIDENT



Dear Members,

Welcome to the second edition of the Chapter Newsletter. As we move further into 2026, we have interesting developments to share along with the technical treat.

In this edition we are honored to feature a keynote message from the **AEE President 2026, Rickson Chude**, emphasizing this year's presidential theme – 'Building Leaders, Advancing Impact'. We also feature message from **AEE President 2020, Sameer Zawaydeh**, elaborating challenge of energy crises due to ongoing regional war in the middle east.

We shall have a technical deep dive with a featured write-up on the **ESCO model for pump replacement** in industrial premises. This case study offers a practical roadmap for achieving significant kWh savings with minimal upfront capital.

We present the firsthand report on **AEE Trade Mission 2026** - the expedition in south America (Ecuador and Peru) by AEE members. It was perfect blend of sustainability study, exploration of new geography, collaboration and expansion by formalizing new AEE chapter in the region.

Energy News section covers a roundup of the latest regulatory updates, current challenges and market trends affecting our local energy landscape.

Our chapter's strength lies in the sharing of knowledge. Whether it's through a technical white paper or a trade mission report, we are committed to providing you with the tools to lead the charge in de-carbonization and efficiency.

I want to thank our contributors and our dedicated board for making this newsletter a reality. I hope these articles spark new ideas for your current projects and encourage you to stay active in our upcoming chapter events.

Enjoy the read!

Vinay Gadikar,

Chapter President AEE Pune Chapter

MESSAGE FROM AEE PRESIDENT 2026



Dear AEE Pune Chapter Members,

It is a pleasure to connect with the Association of Energy Engineers community in Pune. The growth of the AEE community here reflects the demand from corporations for skilled energy professionals who can deliver innovative solutions to manage utility costs, enhance operational resiliency, and comply with environmental policies.

Today, I am thrilled to introduce the 2026 AEE Presidential Theme: **Building Leaders, Advancing Impact.** This theme embodies the future of our profession and the goals we will pursue together. It is built on three pillars: **Leadership, Connection, and Service.**

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MESSAGE FROM AEE PRESIDENT 2020



Greetings to my friends at the AEE Pune Chapter in India. On the 28th of Feb 2026, the world woke up to the start of a new war. This has caused a new energy crisis that will have an impact for decades. Countries will move rapidly to stop relying on imported energy to avoid fluctuations in international oil prices. Currently, oil prices have increased from $60 USD/barrel to approximately $120 USD/barrel in two weeks. This means that oil-importing countries will have to pay double their annual budgeted amounts for energy, which will negatively impact national budgets, and countries will have to cancel their projects that require capital investments.

(*Continued on page 2…)*

MESSAGE FROM AEE PRESIDENT 2026

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Leadership: Strong leaders are essential for guiding chapter operations and creating value for members. As a newly established chapter, the Pune Chapter has a unique opportunity to shape the next generation of energy leaders in the region. In 2026, we will focus on building AEE's leadership pipeline, encouraging members to step forward into chapter and regional leadership roles.

If you're thinking about getting involved, it's normal to wonder if you're ready, but rest assured, you are not alone. Leadership in AEE is a team effort, with support from fellow volunteers and the wider network. This year, I am committed to working with the AEE Board and staff to provide extra resources, training, and mentoring opportunities, helping new leaders thrive, grow their impact, and leave a lasting mark on our community.

Connection: All humans seek connection, and as AEE members, we are part of a vibrant, global energy ecosystem. To advance our mission for a sustainable energy future driven by certified energy professionals, we must build strong partnerships across industry, government, and academia, bringing together expertise, resources, and innovative solutions to tackle today's complex energy challenges. To support this, AEE is developing a platform that makes it easier for members to connect, share their expertise, and collaborate across chapters and regions. That said, every AEE Pune chapter member should see themselves as an ambassador, contributing, whether by inviting speakers, volunteering, or connecting with sponsors, to make chapter activities more impactful.

Service: With knowledge and skills comes the power to make a meaningful difference. Energy professionals have a unique opportunity to give back to their communities by sharing expertise, mentoring students or early-career engineers, and contributing to local projects. In 2026, I plan to spearhead the launch of the AEE Week of Service, a dedicated time for chapters worldwide to engage in activities that benefit communities, inspire future energy leaders, and demonstrate the positive impact of our profession. By participating in these efforts, members can make a tangible difference while highlighting the value of AEE in society. But don't wait. You have the power to make a difference now.

In closing, I encourage each of you to get involved, embrace leadership opportunities, and bring your expertise and enthusiasm to your chapter. Together, we can build a strong, connected, and service-oriented community that leaves a lasting impact.

Best regards,

Ricson O. Chude, P.E., CEM, CEA, CMVP
2026 President, Association of Energy Engineers

MESSAGE FROM AEE PRESIDENT 2020

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While national budgets will be strained during the next months of the war, this pressure is the catalyst for redirecting capital away from imported fuels and towards capital projects that are implemented immediately, such as solar PV projects and efficiency retrofits, avoiding the reduced economic power of citizens because of paying more for the cost of energy, which will lead to less spending and shrinking of economies.

Energy engineering talent is in high demand to find brilliant ideas and solutions for energy conservation, efficiency, and adopting more renewables. I encourage you all to take bold steps forward to contribute with your talents and knowledge to help your countries face these exceptionally turbulent times in the energy markets and increase their resilience against fluctuations in international oil prices.

Your actions in directing capital investments towards energy management project implementation, awareness, and training will yield very high returns because of the high cost of energy. It will determine the prosperity of future generations and be an example taught in energy management books for the next 50 years.

Be safe and God bless.

Samer A. Zawaydeh,
2026 President, Association of Energy Engineers

EVENT REPORT: AEE TRADE MISSION 2026

AEE Trade Mission 2026: Uniting Global Sustainability and Indigenous Heritage in South America

Trade Mission 2026 was organized by the Association of Energy Engineers (AEE) to Ecuador and Peru during 7 to 21 Feb 2026. This expedition was a perfect blend of rigorous sustainability studies and deep cultural immersion, allowing participants to explore ecological marvels while forging vital international partnerships.

Here is a look at what the delegation accomplished during this unforgettable journey:

Environmental Conservation in the Galapagos

The adventure commenced in the Galapagos Islands, serving as a dynamic, living laboratory for ecological preservation.

- **Santa Cruz Island:** While exploring the island, members visited the local renewable energy center to learn firsthand about the archipelago's unique energy sources and uses.

- **Charles Darwin Station:** This technical visit was complemented by observing the incredible conservation efforts at the Charles Darwin Station, reinforcing the critical link between sustainable energy practices and habitat preservation.

Strategic Expansion in Peru

Upon arriving in Peru, the mission shifted its focus toward collaborative growth and strategic expansion.

- **New Chapter Launch:** In Lima, members held a pivotal meeting with local AEE professionals. This gathering celebrated the official expansion of AEE operations through the opening of a vibrant new chapter in the city.

- **CETPRO Energy Audit:** Acting on the recommendation of the newly formed Peru chapter, the AEE delegation conducted a comprehensive technical walkthrough energy audit for a local CETPRO facility, identifying opportunities for energy optimization.

Indigenous Wisdom and Resilient Design

Venturing beyond the urban centers, the mission sought to understand the traditional sustainability practices preserved by the indigenous communities of Peru.

- **The Amazon Rainforest:** Traveling into the heart of the Peruvian Amazon at the Tambopata National Reserve, members explored the flora and fauna and ascended a 42-meter canopy tower specifically designed to measure the impacts of climate change on the rainforest.

- **Sacred Valley & Cusco:** The expedition then moved through the Sacred Valley and Cusco, where participants witnessed the ancient, harmonious agricultural practices of the Incas.

- **Machu Picchu:** This cultural immersion culminated in a visit to Machu Picchu. There, the site's mortar-free, highly earthquake-resistant stone architecture served as a breathtaking masterclass in resilient, sustainable design. Members also completed a memorable hike on the adjacent Huayna Picchu mountain.

Ultimately, the AEE Trade Mission was a resounding success. By opening new chapters, collaborating with local organizations, and learning from both modern climate science and enduring indigenous wisdom, AEE continues to champion a sustainable future across the globe.

Vinay Gadikar, Participant of Trade Mission 2026

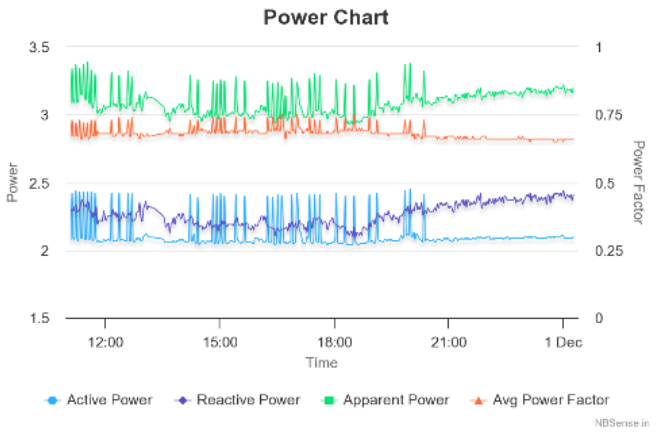


KNOWLEDGE CORNER

Case Study: Pumping system ESCo Project



Scenario: An Energy Audit findings surfaced certain Energy Saving potentials in the facility. The priority based on payback and simplicity of the project was defined and hence the pumping ESCo project was initiated. Various pumps in the industry are catering to the operations such as water transfer, cooling tower water supply, cooling water supply to machineries. 4 Pumps selected for the project implementation.



Approach: A general selection of pumps in the system is based on the requirement of Head and flow of the system. Defining these parameters in project phase is a challenging job. It involves number of calculations and considerations To arrive at required head and flow parameters. With this the next step would be selection of for desired head and flow.



Pump selection is the major factor for the energy saving in the Pumping system. Balance between the maximum output needs of plant as well as the normal working conditions of plant is critical. Have to accommodate the increasing demand of the plant with the expansion plans.

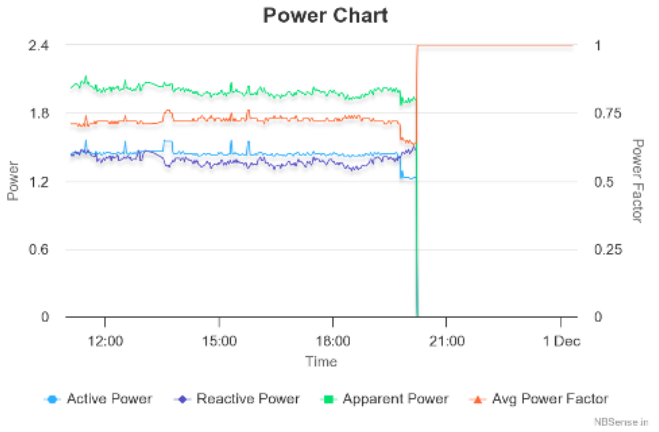


Initial Pumping Power : 13 kW
Power after implementation: 5.5 kW
Saving : More than 50%

In this particular the additional challenging was to convert the surface pumps with submersible pumps. It was challenging to have clients for installing submersible for these regular applications.

The Baseline consumption definition and continuous monitoring of the power consumption after implementation is a challenging job. So it was decided have an energy monitoring system employment MFM energy meters for individual pumps to get a clear idea about consumptions prior to implement and post implementation.

The operating hours of the equipment are linked with the production. Increase or decrease in the production quantity actually changes the operating





hours of equipment, hence it is required to have a baseline for operating and production as well. EMS system also helped in determining the working hours of the pumps and compare those with the baseline working hours.

Freezing the computation Methodology of energy savings and cost savings is a critical step. Once these are finalized and documented in ESCO contract EMS system feeds with the necessary input for computation of both.

- With each step executed precisely and committing the savings accurately ensures the success of ESCo by achieving the desired outcomes.

Swapnil Gaikwad, Power Tech Energy Solutions

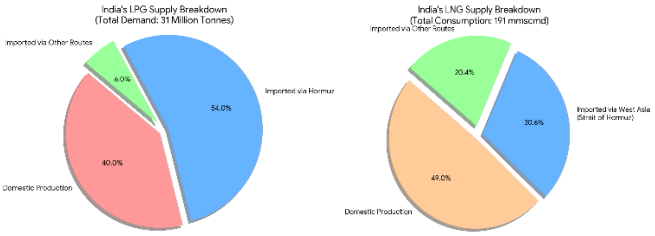


ENERGY NEWS

❖ **Energy Security: India's Strategic Reserve Buffer**

The Update: India's Strategic Petroleum Reserves (SPRs) are currently at approximately **64% capacity** (3.37 MMT), providing a buffer for roughly **9.5 days** of crude consumption. To strengthen this, the government is moving forward with Phase II expansions in **Chandikhol, Odisha (4 MMT)** and **Padur, Karnataka (2.5 MMT)**.
Source: Vajiram & Ravi - India's Strategic Petroleum Reserves (March 24, 2026)

❖ **India is increasing the LPG and LNG imports from African countries and South America**



Present LPG and LNG sources (Before Hormuz Closure)

India is dependent on strait of Hormuz for LPG (54%) and LNG (30%). However, India is exploring the option from African countries and South American countries.

Source: TOI and AEE Pune chapter analysis

❖ **New Policy & Regulation: India's Draft National Electricity Policy 2026**

The Update: The Ministry of Power has released the **Draft NEP 2026**, which targets a massive increase in per capita electricity consumption to **2,000 kWh by 2030**. Key pillars include an 11-fold expansion of nuclear power to 100 GW by 2047 and the introduction of multiple electricity suppliers to foster competition.
Source: IBEF - New Draft Electric Policy 2026 (January 22, 2026)

❖ **Geopolitics: The Closure of the Strait of Hormuz**

The Update: For the first time in history, a military conflict has led to the **complete closure of the Strait of Hormuz**. This has removed nearly **20% of global oil supplies** from the market, hitting Asian importers particularly hard and creating an unprecedented geopolitical supply shock.
Source: Federal Reserve Bank of Dallas - Closure of the Strait of Hormuz (March 20, 2026)

❖ **Emerging Tech in Conservation: Sodium-Ion & Solid-State Batteries**

The Update: 2026 marks a commercial turning point for alternative battery chemistries. **CATL** is mass-producing its "Naxtra" sodium-ion platform for EVs, while the first production motorcycles featuring **all-solid-state batteries** (with 400 Wh/kg density) are reaching customers this quarter.
Source: Highstar - Next-Generation Batteries 2026 and Beyond (January 30, 2026)

❖ **Innovation in Energy: AI Factories as Grid Assets**

The Update: A major collaboration between **NVIDIA, Emerald AI**, and leading utilities (AES, NextEra) was announced at CERAWeek 2026. They are pioneering "AI Factories" designed to act as flexible grid assets, using software to orchestrate onsite generation and batteries to support grid reliability.
Source: NVIDIA Investor Relations (March 23, 2026)

Vinay Mulay, Secretary AEE Pune Chapter

Net Zero Conference
2026

Sustainability – Collaboration – Sharing – Showcasing

Stay tuned to be part of grand annual event organized by AEE Chapters

Upgrade yourself with exposure to recent developments in the **Sustainability** domain

Collaborate with fellows from different parts of the globe

Share your success stories – help others to succeed

Showcase your capabilities on the global stage

Get the most by choosing to be part of the Organizing Committee.

Click here for interest form – https://forms.gle/GN6xFqEpBvXUVb4k9

COLLABARATIONS & PARTNERSHIPS

A two-hour awareness session for 3rd year engineering students on `**Indian Energy Scenarios and Government Policies**' was conducted at MIT Kothrud premises. This awareness was a parry of *Bharatiya Chatra Sansad (Indian Students Congress)*. The above topic was explained by Vinay Mulay and Vikram Vartak in detail to make the students aware of how the various government policies were shaped right from independence of India and how these policies impact the industry.



Prasad Phale had taken lead for organizing this event and he explained the students about the foundation and role of AEE and about AEE Pune chapter.

Dr. Neha Lokhande, Associate professor, Department of electrical and electronic engineering MIT World Piece University had taken lead in making our awareness program a success.

Vikram Vartak, Student Chapter Committee



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 32,000 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.

AEE Quick Facts

- 18,500+ members' global network
- 32,000+ active certifications in 144 countries
- 114 Professional & 45 Student Chapters

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

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

MEMBERSHIP

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, trainings, publications for members' capacity building

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

Step 1 - To be member of Association of Energy Engineers go to the link: https://aeepune.org/index.php/membership.

Step 2 – To join AEE Pune Chapter fill in the Membership Interest Form - https://forms.gle/rZGyNirNNqwTCkxV8

Chapter Committee and Connect



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AEE TRADE MISSION 2026



Commencement of AEE Peru Chapter

Lima – Capital of Peru







AEE Trade mission members at Machu Picchu – Seasonal Capital of Incas in 15th Century



Walkthrough Energy Audit of CEPTRO facility with AEE Peru Chapter Members