

As of 04/02/2025

**The 5th ASEAN International Conference on Energy and Environment
(The 5th AICEE)**

in conjunction with

**The ASEAN Energy Business Forum (AEBF) 2025
and the 43rd ASEAN Ministers on Energy Meeting (AMEM)**

Kuala Lumpur, Malaysia | 15 October 2025

A. Background

As the world grapples with the energy security issues have become even more important for the region. Under the ASEAN Malaysia Chairmanship in 2025, inclusivity and sustainability have become two priority agendas, narrowing the development gap and inequalities in energy transition. On the other hand, the ASEAN Plan of Action for Energy Cooperation (APAEC) Phase II: 2021-2025, regional blueprint on energy cooperation, has a theme and sub-theme in which embracing energy transition is one of the key elements to achieve regional energy security and environmental sustainability. As this document will end soon in 2025, ASEAN has agreed to the new theme of APAEC 2026-2030, “Advancing Regional Cooperation in Ensuring Energy Security and Accelerating Decarbonisation for a Just and Inclusive Energy Transition.”

Therefore, the concerns on energy inclusivity and sustainability call for collaborative planning and action between energy and climate change policymakers, scholars, and businesses, to find common ground and ensure success in both areas. Energy and climate experts sometimes work in their own chambers and have limited interaction with each other. To bridge the chamber and pave the way forward, the short-run target of energy security and the long-run target of sustainability should be reconciled within the framework of the energy transition. During the energy transition, a mixture of fossil fuels and renewable energy that maximises economic growth and minimises emissions might be preferable. The optimal road map to decarbonisation and shift to low carbon energy should also be developed.

B. Objectives

The objectives of the 5th AICEE are twofold: firstly, to provide a forum for knowledge sharing among academia, policymakers, and the business sector on issues related to energy and climate change in ASEAN; secondly, to strengthen interdisciplinary and multi-stakeholder collaboration in ASEAN to accelerate a resilient energy security and transition.

To further accelerate the progress towards a sustainable future, enhance collaboration among various sectors, and bridge the gap between academia, policymakers, and businesses, we are delighted to announce that the ASEAN Centre for Energy (ACE) will be hosting the 5th ASEAN International Conference on Energy and Environment (AICEE) in conjunction with The ASEAN Energy Business Forum (AEBF) 2025 and The 43rd ASEAN Ministers on Energy Meeting (AMEM) in September 2025. These events will offer a platform for academics, practitioners, and stakeholders to network, exchange ideas, and explore innovative solutions to address the challenges of energy and the environment.

This year's AICEE is the fifth edition of the annual flagship conference held by ACE. In the previous edition held in September 2024, the 4th AICEE received 250 abstracts submissions, with 66 accepted presentations, conducted fully in-person. Currently, 33 full papers have been submitted and are under review for publication in the IOP Conference Series: Earth and Environmental Science (forthcoming- June

2025). The 4th AICEE, co-hosted with the National University of Laos (NUOL) was successfully convened with support from the Economic Research Institute for ASEAN and East Asia (ERIA). It was also organised in partnership with Academic Partners, namely, Universiti Teknologi Malaysia (UTM); Japan-ASEAN Science, Technology, and Innovation Platform (JASTIP); Universitas Udayana, Energy Research Institute (ERI) from Chulalongkorn University; National Energy Technology Center (ENTEC); and ASEAN Climate Change and Energy Project (ACCEPT). This collaboration marked a strong foundation for the conference, establishing it as a key reference for future editions.

C. Theme and Topics

The theme for this year's AICEE is "**Sustainable Energy for ASEAN's Prosperity: Innovation, Inclusivity and Regional Cooperation**". This conference aims to facilitate discussions on interdisciplinary and cross-sectoral issues to promote the next cycle of ASEAN Energy Blueprint and energy priorities of ASEAN Malaysia Chairmanship.

This event will present recent research on energy, climate change, and related issues, especially clean energy transition in the context of energy inclusivity and sustainability in the ASEAN region. Some possible **topics** include, but are not limited to:

I. Low Carbon and Emerging Technologies

This topic encompasses the diverse array of technologies aimed at transforming fossil fuel systems and the adoption of low-carbon innovative solutions. It explores approaches to accelerating the adoption of renewable energy sources, such as solar, wind, hydropower, geothermal, and bioenergy, through policy incentives, technology advancements, and investment in infrastructure. Emerging technologies, including nuclear and hydrogen, are positioned to play pivotal roles in advancing low-carbon solutions and driving the transition to a more sustainable energy future. Furthermore, the topic addresses the challenges and opportunities associated with non-renewable energy or fossil energy sources, focusing on their role in the transition and potential mitigation strategies. Key technologies that can offer promising pathways for reducing carbon emissions from fossil-fuel-based energy systems, includes Carbon Capture, Utilisation, and Storage (CCUS), Clean Coal Technologies (CCT), and Co-firing. Lastly, the topic encompasses energy conversion technologies that facilitate the transition, including advancements in energy storage, smart grids, and innovative solutions for efficient and sustainable energy use.

II. Energy Efficiency Technologies and Measures

This topic discusses about energy management that play a crucial role in optimising energy systems, improving energy efficiency, and shaping regulatory frameworks that promote energy-efficient solutions. This topic also encompasses the intersection of energy and digitalisation. It includes approaches to harnessing digital technologies and data analytics to optimise energy systems, improve energy efficiency, and enable real-time monitoring and control of energy infrastructure. The Internet of Things (IoT) in Energy plays a significant role, exploring the application of connected devices, sensors, and data analytics to enhance energy efficiency, automate energy management processes, and enable predictive maintenance of energy infrastructure. Additionally, Blockchain Technology in Energy is a subtopic that discusses the potential applications of blockchain technology, such as peer-to-peer energy trading, transparent transaction records, and grid management. These digital innovations can revolutionise energy systems, ensuring efficient integration of renewable energy sources and enabling energy democratisation. However, it is essential to address cybersecurity and data privacy concerns while ensuring equitable access to digital technologies in the energy sector.

III. Regional Energy Cooperation and Interconnection

Regional Cooperation and Partnerships is another subtopic, emphasising the need for interdisciplinary and cross-sectoral collaborations at the international level, including knowledge sharing, technology transfer, and financial support for energy projects. This topic encompasses the critical aspects of ensuring secure and accessible energy interconnections, such as Trans-ASEAN Gas Pipeline and ASEAN Power Grid. It includes approaches to strengthening the physical and cyber security of interconnected energy systems, fostering regional cooperation and collaboration, and developing robust regulatory frameworks. Additionally, it comprises issues relating to enhancing accessibility to energy infrastructure, promoting equitable distribution of energy resources, and addressing the challenges associated with interconnecting diverse energy grids across ASEAN.

IV. Just and Inclusive Energy Transition

This topic encompasses the recognition of the multidimensional nature of energy transition through the framework of justice and inclusivity. It includes approaches that integrate knowledge and expertise from various disciplines and sectors, such as energy access and affordability, energy employment, education and capacity, gender and social inclusion, and inclusive governance, to address the complexities of the energy transition. Policy and Governance is a critical subtopic, highlighting the interdisciplinary nature of energy policy and governance, and the importance of collaborative decision-making processes to develop effective energy policies and regulations. Another critical focus in this topic is the socio-economic dimension, which emphasizes the importance of creating equitable economic opportunities for all segments of society. Social and economic impacts are a subtopic that explores the interdisciplinary aspects of energy systems, including issues related to energy access, affordability, equity, and environmental sustainability.

V. Energy, Environment, and Climate Policy

This topic encompasses the urgent need for sustainability and addressing the challenges posed by climate change. It includes approaches to reducing greenhouse gas emissions, managing energy consumption, and mitigating environmental damage. Furthermore, it comprises issues relating to pollution control, waste management, and resilience. By implementing effective pollution control measures, ASEAN can mitigate environmental degradation and its impact on human health and ecosystems. Additionally, adopting sustainable waste management practices enables the transition towards a circular economy, minimising waste generation and promoting recycling and resource recovery. The development of green infrastructure, including sustainable transportation systems and resilient urban planning, further supports the energy transition by reducing emissions and enhancing climate resilience.

VI. Energy Investment

This topic encompasses the importance of carbon pricing and green investment as crucial mechanisms. It includes approaches to establishing effective carbon pricing mechanisms that incentivise the reduction of greenhouse gas emissions and promote the transition to low-carbon technologies and practices. Green investment strategies play a vital role in directing financial resources towards climate-friendly projects, such as renewable energy, energy efficiency, and sustainable infrastructure. Additionally, the topic comprises subtopics such as Green Bonds and Sustainable Investment instruments, exploring the role of financial instruments in channeling investments into climate-friendly projects, and Policy and Regulatory Support, discussing the importance of supportive policies, incentives, and regulatory frameworks in fostering green investments.

As of 04/02/2025

D. Timeline

Abstract Submission Deadline	: 30 June 2025
Notification of Abstract Acceptance	: July 2025
Conference Registration	: August 2025
Conference Day	: October 2025
Full Paper Submission	: December 2025
Peer Review Process	: March 2026
Publication	: June 2026 (subject to confirmation with the IOP)

E. Contact

For further information, please contact us at aiceeinfo@aseanenergy.org please or visit our website at go.aseanenergy.org/AICEE

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