

THE AEMI INITIATIVE: AN OVERVIEW

Context¹

1. ASEAN is facing an energy challenge. Primary demand for energy is set to grow steadily at 4.4% per year up to 2030, in the face of increased economic activity, population growth, rising electrification rates, and expansion of the transport sector. The implication is that energy demand will double by 2030, after having already expanded 2.5 times since 1990. Demand for all hydrocarbons is set to expand: oil by 50%; natural gas by 80%; and coal by 300%, as it replaces gas and oil, notably for electricity generation. According to the Asian Development Bank, even with best scenarios for energy efficiency and renewable energy, ASEAN energy production cannot meet such rapidly increasing demand.
2. This soaring energy demand is combined with a declining energy production within ASEAN. ASEAN oil production is expected to fall by almost one third by 2030, after having declined by 10% per year in the last decade. Also ASEAN's surplus of natural gas and coal available for export will continue to decline, as ASEAN production is outpaced by its domestic demand. Currently, renewables represent only 3% of primary energy mix in ASEAN-5 (Indonesia, Malaysia, the Philippines, Singapore and Thailand) and this ratio is set to fall, as gains from the use of alternative energy will only displace current use of biomass.
3. Moreover, ASEAN's environmental sustainability is set to decline. ASEAN energy-related greenhouse gas emissions are expected to double by 2030, after having increased by 57% during the last decade. This is due in part to the expected 8% annual increase in coal consumption for electricity generation. Moreover, ASEAN energy intensity is lagging world averages. It improved only by 12%, compared to 26% worldwide. Moreover, ASEAN industrial energy intensity has been worsening steadily in the last three decades (decreasing on average by 0.2% per year in 1980-2011). As a result, ASEAN currently consumes more than twice the amount of energy per unit of GDP than the average industrial countries (OECD). End-users appliances (e.g., incandescent light, bulbs, air conditioners; industrial motors) are highly inefficient compared to best available technologies.
4. Finally, ASEAN energy poverty is higher than the world average. More than one fifth of ASEAN population (some 130 million people) still lack access to electricity, and nearly half (45%) relies on traditional use of biomass for cooking (about 230 million people). Lack of access to modern energy services is a serious hindrance to economic and social development, and must be overcome if sustainable and equitable growth is to prevail within the ASEAN Economic Community.

¹Sources: AEMI Group (2013), *ASEAN Energy Market Integration (AEMI): From Coordination to Integration*; Asia Development Bank (ADB) (2013), *Asian Development Outlook 2013: ASEAN's Energy Challenge*; International Energy Agency (IEA) (2012), *World Energy Outlook*; International Monetary Fund (IMF) (2013), *Energy Subsidy Reform: Lessons and Implications*; International Institute for Sustainable Development (IISD) (2013), *A Guidebook to Fossil-Fuel Subsidy Reform for Policy-Makers in Southeast Asia*; The World Bank (2010), *Subsidies in the Energy Sector: An Overview*.

Challenges

5. International organizations (ADB, IEA) propose ASEAN energy market integration as the most efficient way for ASEAN to address its energy challenges. They also recognize that the creation of an efficient ASEAN-level regional energy market is a major challenge, as it requires harmonization of energy pricing and subsidies for energy product and services; rationalization of tariffs and non-tariff barriers; expansion of market connectivity through gas pipelines and power grid; and formulation of a common strategy for energy security. Moreover, for the integrated ASEAN energy market to be socially equitable and environmentally sustainable, member states need to agree common policies to deploy renewable energy; enhance energy efficiency; and secure access to clean energy sources. ASEAN energy market integration therefore involves all of these elements.
6. A group of concerned ASEAN academics held a session at Chulalongkorn University (May 2013, Bangkok) and constituted themselves into the AEMI Group, agreeing to work together to make the case for ASEAN Energy Market Integration (AEMI) within the forthcoming ASEAN Economic Community (AEC). The vision is to allow for the free flow of energy products, services, investment and skilled labor in the framework of the AEC. The approach is consistent with the purpose of the AEC, to transform ASEAN into a single production market with a free flow of goods, services, investment and skilled labor. AEMI is a logical extension of such provisions to the energy sector.
7. The AEMI Group committed to working together to develop the AEMI concept, analyze its rationale, assess its potential benefits, and propose an approach for its deployment within the AEC through 2030. Through their studies, the AEMI Group demonstrated that the development of AEMI is an imperative requirement for the success of the AEC, given the vital role that energy plays in sustaining economic growth and in securing the wellbeing of people. Moreover, if designed properly and implemented efficiently, AEMI has the potential to deliver economic, social and environmental benefits to all ASEAN member states. It could improve energy efficiency, help creation and deployment of renewable energy and address energy poverty across ASEAN.
8. The AEMI Group published a Book: "*AEMI: From Cooperation to Integration*" (2013) distributed to ASEAN Senior Officials, policymakers and academics (in Bangkok, Jakarta, Manila, Kuala Lumpur, Singapore, and Tokyo). The work of the AEMI Group was supported since its inception by Chulalongkorn University (Bangkok, Thailand).

Policy making

9. The AEMI Group was successful in opening a dialogue with ASEAN policymakers on energy market integration. It made the case for the successor of the current ASEAN Plan of Action for Energy Cooperation (APAEC, 2010-2015), to move from regional energy "cooperation" into energy "integration", to take the energy dialogue beyond the current piecemeal bilateral trading arrangements, into fully integrated energy policies within the framework of the AEC. The AEMI Group worked closely with the ASEAN Secretariat and relied on the data and publications from the ASEAN Center for Energy (ACE). It was invited to address the 31st Senior Officials Meeting on Energy (SOME) in Bali (June 2013). The SOME endorsed the AEMI initiative and encouraged the AEMI Group to report back their results on the subsequent SOME.
10. SOME adopted "ASEAN connectivity and energy market integration" as the main theme for the new APAEC and instructed the drafting committee to prepare the document accordingly. This represents a major shift in ASEAN perspective, and a challenge to its policymakers. As a result,

the AEMI Group currently focuses its analytical work on defining an AEMI Blue Print. It has already identified the set of issues that needs to be addressed, with a view to formulating policy recommendations directly relevant to the new APAEC recently adopted by Ministers, and to its deployment through to 2025.

Focus

11. The proper formulation of AEMI Blue Print would provide ASEAN greater energy security, enhanced economic efficiency, and improved opportunities to fight energy poverty and to address environmental problems. The current focus of the AEMI Initiative is to bring together energy experts from ASEAN and beyond, to further develop the AEMI concept and design its Blue Print. Building on the work previously accomplished, the AEMI Group would undertake policy analysis and formulate recommendations for the APAEC (2016-2025) through the period of its implementation.
12. The AEMI Initiative is geared towards enhancing ASEAN energy policy dialogue, and engaging policymakers (e.g., ASEAN Center for Energy, the ASEAN Secretariat and all ASEAN energy bodies), non-government organizations, as well as energy and environment experts from the region and beyond.

Approach

13. The AEMI Initiative will convene a series of thematic Forums to assess ASEAN energy challenges, identify opportunities and challenges in implementing AEMI, and formulate policy recommendations for the new APAEC. These Forums will be designed to engage an interaction policy dialogue between academics, energy practitioners, civil society organizations, ASEAN policymakers as well as international organizations.
14. The thematic Forum will help develop the themes identified for the AEMI Blueprint. These themes include: expanding renewable energy; improving energy efficiency; securing clean energy access to isolated remote areas; tackling energy subsidies while enhancing affordability of energy to the poor; improving market connectivity; fostering clean energy technology; and advancing energy security.
15. Special attention will be given to convening a Forum to assess the impact of small-and-medium-scale renewable energy projects in remote and isolated areas across ASEAN, and to investigate ways to help forge a role for ASEAN in global renewable energy development. In particular, the Forum would assist in developing a survey to be conducted in at least 20 local communities that have recently installed renewable energy sources across a minimum of four ASEAN member states.

Outputs

16. A *Forum Proceeding* will summarize the conclusions from each Forum, highlight the emerging policy recommendations, and outline next steps to further develop them (including surveys at the national level, interactions with ASEAN policy makers, and investigations with national energy entities).
17. An *AEMI Policy Paper* will be drafted on each of the Forum themes, focused on analyzing policy options and making policy recommendations for the deployment of the new APAEC. An *AEMI Website* will be created to e-Publish *AEMI Policy Papers*, post information related to the ASEAN energy, distribute Forum outputs, and receive comments and suggestions.

Support

18. Building on the AEMI work initiated and supported by Chulalongkorn University, Thailand since 2013, the AEMI Initiative is currently funded by the Norwegian Ministry of Foreign Affairs. It is currently housed at the ASEAN Studies Center (ASC), Chulalongkorn University.
19. The AEMI Initiative is jointly coordinated by the ASC and the Norwegian Institute of International Affairs (NUPI). An AEMI Advisory Committee reviews its progress and provides guidance and an AEMI Review Committee advises on its technical aspects.

Partnerships

20. The AEMI Initiative seeks to expand the current AEMI Group, building a broader participation of ASEAN academic institutions and research institutes. It also strives to broaden the AEMI network to gradually include relevant civil society organizations, multilateral organizations, foundations, as well as (neutral) bilateral and multilateral donors. Finally, it also seeks to build linkages with ongoing related international initiatives on green energy and technology, and on access to small scale renewable energy.