

## ASEAN ENERGY MARKET INTEGRATION (AEMI)

1. The *ASEAN Energy Market Integration* (AEMI) project builds the case for energy market integration across ASEAN in the framework of the forthcoming *ASEAN Economic Community* (AEC). It develops the rationale for such an approach, assesses the benefits it would deliver, designs its architectural structure, and draws a strategy to deliver it by 2030. The ultimate purpose is to formulate a *Blue Print* for AEMI and develop a strategy for its gradual implementation through 2030, as a realistic step towards building the broader *Energy Market Integration* (EMI), already embraced by the East Asia Summit (EAS) nations.<sup>1</sup>

### A. CONTEXT

2. Primary demand for energy in ASEAN is set to grow steadily at 4.4% per annum to 2030 in the face of increased economic activities with 5.2% growth per annum, population growth, greater electrification rates, and expansion of the transport sectors throughout the region<sup>2</sup>. The implication is practically a doubling of energy demand during that period, a significant increase in vulnerability to energy imports (particularly on Middle East oil), as well as a doubling of ASEAN contribution to global carbon emissions.<sup>3</sup> These developments are also set against a background where notable segments of the population across ASEAN are still lacking access to energy, and are becoming increasingly vulnerable to climate change adversities.

3. Such prospects have raised serious concerns about the availability of conventional sources of energy to meet such a growing demand, as well as about the implications on the environment in the region and beyond. ASEAN leaders and policy makers fully recognize that access to secure, sustainable and affordable sources of energy will be essential to achieving their growth objectives and to securing the well-being of their people. Energy security has therefore emerged at the top of the political and social agendas. There have been increasing calls on ASEAN to take urgent steps to address the situation, essentially through measures to curb energy demand, increase and diversify supply sources, and strive to accelerate the transformation of energy markets (improve energy investment climate, strengthen regional cooperation in sharing best practices).<sup>4</sup>

4. ASEAN leaders have adopted a number of initiatives to address these energy challenges, and have directed their Ministers of Energy to cooperate in delivering them.<sup>5</sup> The energy component of the nascent ASEAN economic community (AEC) recognizes that the “secure and reliable supply of energy including bio-fuel is crucial to support and sustain economic and industrial activities”.<sup>6</sup> It pledges to accelerate regional collaboration, by specifically taking action to: (a) develop the interconnected oil and gas pipelines through the *Trans-ASEAN Gas Pipeline* (TAGP) and the *ASEAN Power Grid* (APG) Project; (b) finalise the *ASEAN Petroleum Security Agreement* to enhance oil and gas security in the region; (c) strengthen renewable energy

<sup>1</sup> The East Asia Summit (EAS) countries include the ten ASEAN member countries, namely Brunei, Cambodia, Indonesia, Lao PDR, Malaysia, Myanmar, The Philippines, Singapore, Thailand and Vietnam, as well as six ASEAN Dialogue Partner countries, namely Australia, China, India, Japan, the Republic of Korea, and New Zealand. The EAS was established in 2005.

<sup>2</sup> “*The 3<sup>rd</sup> ASEAN Energy Outlook*”, ACE, IEEJ and ESSPA, 2011

<sup>3</sup> “*World Energy Outlook 2012*” International Energy Agency (IEA).

<sup>4</sup> Numerous publications notably by the Economic Research Institute for ASEAN and East Asia (ERIA); ASEAN Center for Energy ACE; International Energy Agency (IEA), Asian Development Bank (ADB) and World Bank Group (WBG).

<sup>5</sup> ASEAN: *The 45 Year Evolution of a Regional Institution*, Philip Andrews-Speed, University of Westminster, 2012.

<sup>6</sup> *ASEAN Economic Community Blueprint 2015*, signed by ASEAN leaders in 2007, Articles 53-55.

development<sup>7</sup>, such as bio-fuels, in view of the limited global reserve of fossil energy and the unstable world prices of fuel oil; and (d) promote open trade, facilitation and cooperation in the renewable energy sector and related industries as well as investment in the requisite infrastructure for renewable energy development.

5. More recently, ASEAN Ministers reiterated their support to enhancing energy security, accessibility and sustainability and agreed 26 strategies and 91 actions towards these objectives.<sup>8</sup>In their latest meeting last year, they strengthened the environmental dimension of their cooperation and pledged “to minimize any harm to the environment, ecosystem, nature and society aiming reduction on global climate change”.<sup>9</sup> Nevertheless, despite such resolutions and efforts for more than three decades, there is a lag in effectively delivering more cohesive ASEAN energy markets, and a sense that the political will for doing so is lacking. Actions undertaken on from a national perspective, and bilateral agreements struck sporadically are all piecemeal endeavors which do not add up to the cohesive, effective system needed to deliver secure, affordable and sustainable energy efficiently used and deployed throughout the region.

6. On their part, leaders of the East Asia Summit (EAS) and their Energy Ministers embraced (since 2007) the ASEAN energy agenda, and took it a step further. Beyond ASEAN’s projects of greater cooperation and joint connectivity, EAS adopted a more efficient approach and ambitious agenda to address the region’s energy. They pledged to establish an open and competitive energy market across the region, and further identified the creation of such an *Energy Market Integration* (EMI) across the region as one of their major priorities (2007). EMI thus elevates the agenda to addressing energy policy issues across EAS members – including trade liberalization, investment environments, energy pricing reform, removal of trade and investment barriers, liberalization of the energy markets, as well as developing energy infrastructure. It also requires cohesion in the governance and regulatory environments across EAS energy markets.

7. Work has started on EMI, fueled by an emerging consensus that a successful EMI would enhance energy security and environmental viability across the region and undoubtedly yield significant economic benefits to all involved.<sup>10</sup>Several actions have been taken in the direction of EMI and several are being planned for the near future and beyond.<sup>11</sup>Nevertheless, analysts recognize now that the realization of EMI across the sixteen EAS nations is a considerable undertaking, one that will likely take several decades to accomplish and one that is probably best started at sub-regional level.<sup>12</sup>

8. The question is whether ASEAN can afford to wait until EMI is fully established across the EAS area. Postponing such issues would run the risk of undermining ASEAN growth prospects, increasing energy costs for consumers and businesses, and weaken ASEAN competitiveness and quality of life. Given the lead time necessary to agree a common course of action and to adjust energy systems, ASEAN members need to start addressing this challenge in advance of the creation of the AEC in 2015. The major tenor of the AEMI project is that while increased cooperation across ASEAN constitutes a positive development, elevating the approach to energy market integration would be more effective in addressing the looming energy challenge.<sup>13</sup>

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<sup>7</sup>ASEAN leaders pledged to ensure that ASEAN development would be “sustainable through, among others, mitigating greenhouse gas emission by means of effective policies and measures, thus contributing to global climate change abatement.”

<sup>8</sup> See *ASEAN Plan of Action for Energy Cooperation* (APAEC) 2010-2015, adopted by ASEAN Ministers of Energy in 2009. Actions included are: the ASEAN Power Grid; Trans-ASEAN Gas Pipeline; Coal and Clean Coal Technology; Renewable Energy; Energy Efficiency and Conservation; Regional Energy Policy and Planning and Civilian Nuclear Energy.

<sup>9</sup>*ASEAN Green Connectivity*, Joint Ministerial Statement of the 30<sup>th</sup> ASEAN Ministers of Energy Meeting, Phnom Penh, 2012.

<sup>10</sup> A number of policy investigations and academic papers, notably those commissioned by ERIA as part of the project on *Energy Market Integration in the East Asia Summit Region*.

<sup>11</sup>*Energy Market Integration and Economic Convergence: Implications for East Asia*, Yu Sheng and Xunpeng Shi, ERIA 2011.

<sup>12</sup>*Energy Market Integration in East Asia: a Regional Public Good Approach*, Philip Andrews-Speed, 2011.

<sup>13</sup> The case for energy market integration at the pan-Asian level was made in the feature chapter: *Asia’s energy challenge* of the recently released *Asian Development Outlook 2013*. Asian Development Bank.

## B. OBJECTIVES

9. Given the vital role that energy will continue to play in sustaining ASEAN economic growth and in securing the well-being of its people, it is imperative that the AEC has access to energy that would be<sup>14</sup>:

- (a) *Secure*, so that producers and end-users across the AEC (households, industry) have uninterrupted access to energy products and services to cover their needs and sustain their growth;
- (b) *Affordable*, so that it be offered at a reasonable price to households, and an economically competitive price to SMEs and industry;
- (c) *Sustainable*, so that energy across the AEC is mindful of environmental protection (including climate change), and accessible to a vast majority of people in support of inclusive growth and social cohesion.

10. In this perspective, the objective of the AEMI project is to build the case for the establishment of an *ASEAN Energy Market Integration (AEMI)* within the AEC framework. The AEC provides for arrangements and agreements that transform ASEAN into a single market with free flow of goods and services, labour and investment, so that resources can flow into their most productive uses within ASEAN. AEMI would require extending the scope of such arrangements and agreements to the energy sector – with free flow across ASEAN of energy products and services as well as investments in the energy sector, as a means to achieving access to secure, affordable and sustainable energy sources, efficiently used and deployed within the AEC.<sup>15</sup>

11. Such an AEMI would represent a gradual approach towards the full realization of EMI through its expansion to dialogue partners in East Asia.<sup>16</sup> AEMI would be geared towards building a competitive, secure and sustainable energy market across the AEC. As such, it would create a framework for a more efficient sharing of energy resources, diversifying its sources, and efficiently securing energy availability to citizens and businesses across the AEC, thereby transcending the need for piecemeal bilateral negotiations.

12. The work on AEMI would build on the ongoing current initiatives within ASEAN.<sup>17</sup> Indeed, the region has long pursued energy market integration, with the first energy agreement signed between Thailand and Lao PDR in 1966. Since then, several initiatives have been conducted within the ASEAN structures. The major energy infrastructure project is the greater Mekong Sub-region (GMS) program, including Thailand, Vietnam, the Lao PDR, Cambodia, Myanmar as well as two southern provinces of China. With the continued support of the Asia Development Bank (ADB), it is expected that all GMS countries will be interconnected by 2020. Moreover, the AEC blueprint emphasizes regional cooperation in the field of energy, notably to establish interconnections through the ASEAN Power Grid and the Trans-ASEAN gas Pipeline projects.<sup>18</sup>

13. Creating an integrated energy market is a difficult process which can take several years, as the experience in the EU notably indicates. Nevertheless, within the context of East Asia, the ASEAN region has a far better chance today of making good progress towards AEMI in the framework of the AEC. Nevertheless, given the challenges that would need to be addressed, it will be necessary to elaborate in some detail a strategy and stepwise pathway to achieving AEMI by 2030. The project would identify the sequencing of these steps, on the grounds of their interdependency, the net benefits they can deliver, and the ease of their implementation.

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<sup>14</sup> Criteria already adopted in a number of ASEAN Ministerial declarations.

<sup>15</sup> Refer to a similar definition at for EMI, covering the EAS countries in *Energy Market integration in the East Asia Summit region: Review of Initiatives and Estimation of Benefits*, ERIA, 2010.

<sup>16</sup> This suggestion was developed and formulated in Philip Andrews-Speed, 2011 (Ibid).

<sup>17</sup> For a review of initiatives towards integrating the energy market in East Asia Summit region refer to *Energy Market integration in the East Asia Summit Region: Review of Initiatives and Estimation of Benefits*, ERIA, July 2010.

<sup>18</sup> For a full review of ASEAN current initiatives in the energy sector, refer to *development of ASEAN Energy Sector, ACE, 2013*.

## C. COMPONENTS

14. The **first** component of the project is to investigate the **rationale for AEMI**, and identify the potential benefits it would deliver to ASEAN members. The component would essentially:

- (a) Map out throughout ASEAN the energy market situation, indicating the extent and nature of the expected “energy gap” by 2030, and the potential sources of supply to address this challenge;
- (b) Establish whether AEC could deliver an efficient economic integration in the absence of an underlying integration of its energy markets, i.e. in the absence of AEMI;
- (c) Assess the benefits to ASEAN from full energy market integration under AEMI as part of the AEC agenda, from the economic, social and environmental perspectives, relative to the current approach characterized by disparate projects and actions.

15. The **second** component would identify the **key building blocks for AEMI**, namely those cohesive energy policies and actions that would gain from being elevated beyond the national levels, and folded into AEMI at the AEC level, for greater efficiency and leverage. The component would essentially investigate AEMI value-added relative to the current coordination approach, which would help determine the type of policies and structures that would belong to AEMI’s building blocks. It would investigate in particular the building blocks needed for AEMI to:

- (a) Allow for a more efficient flow of energy across ASEAN
- (b) Create the enabling environment for investments in energy infrastructure projects (e.g., construction of pipelines for gas transmission, infrastructure for electricity transmission, and introduction of standardized smart electricity grids)
- (c) Enhance ability to generate promising new technologies for alternative sources of energy and supporting their early-stage experimental deployment.

16. The **third** component would spell out the **strategy for the emergence of AEMI**. This component would:

- (a) *Assess the institutional and governance dimensions for the creation of AEMI and its efficient operation. Based on best practice around the world, it would identify (both at the national and AEC levels) some of the operational and structural aspects needed to establish an efficient internal energy market under AEMI, and identify actions to be enacted at the AEC level to support them.*
- (b) *Analyse the geo-political economy dimensions for the creation of AEMI and its development. This would provide a better grasp of geo-political considerations of energy market integration, and a better understanding of the dynamics at work. It would further elaborate a strategy and stepwise pathway for achieving AEMI by 2030 and identify the sequencing of such steps, on the grounds of their interdependency, the net benefits they can deliver, and the ease of their implementation along the path towards AEMI. This would also provide a Road Map for the adoption of AEMI through ASEAN decision-making structures.*
- (c) *Review lessons from international experience from attempts around the world to create cohesive energy markets, within economic unions or beyond. It would focus on lessons learned from the EU, NAFTA, Mercosur, and initiatives conducted in Central Asia.*

17. The work on AEMI will be developed in close cooperation with the ASEAN Secretariat, who supports the project and has pledged to provide guidance throughout its various phases. The ASEAN Secretariat will also act, in due course, as the “link” between the project and the “decision making officials” within ASEAN.

18. The **Annex** provides a preliminary overview of the *Background Papers* needed to support the work on these three components. These will be discussed during the *Brainstorming Session* on May 10, in order to better define them and identify contributors for writing them.

## D. METHODOLOGY

18. The project methodology would be to build on existing quantitative analysis and projections, tap into the vast amount of information already available on energy markets and prospects in Asia, and use the data provided through different surveys of energy markets across ASEAN<sup>19</sup>. Where relevant, the research will revisit some of the publications on the *Energy Market Integration (EMI)*, with a view to analyzing quantitative results in the case of ASEAN. Moreover, the research methodology will be based on analysis of relevant lessons learned from global experience towards energy markets integration, particularly those in the framework of the creation of economic communities. These will primarily include the experience and the numerous analyses conducted for the EU, NAFTA, Mercosur, and relevant experience in Asia.

19. Overall, the innovation of the research supporting the AEMI project lies in three areas: (a) its focus on ASEAN energy challenges, rather than the pan-Asian or the EAS region energy challenge as in most other analyses and publications; (b) its developing the rationale for supporting the economic market integration (under the AEC) by an underlying energy market integration (under AEMI); (c) its striving adopting a multi-disciplinarily approach, bringing together the economic, environmental, social and political dimensions.

## E. PROJECT PHASES AND TIMELINE

20. **March -July 2013:** The initial phase of the project is conducted under the auspices of the *ASEAN Studies Center*, as well as the *Faculty of Economics, Chulalongkorn University* and the *Energy Research Institute (ERI) at Chulalongkorn University*. The work is developed by a *Group* of academics from these institutions, joined by a member from the *Energy Studies Institute, National University of Singapore*. An *Advisory Panel* oversees the work of the *Group* and the progress of the project, and currently includes Professors Chayodom Sabhasri, Dean, Faculty of Economics; Suthiphand Chirathivat, Director, ASEAN Studies Center; Bundhit Euaarporn, Director, Energy Research Institute; and Dr. Thierry Lefevre, Director, CEERD.

21. **Interim step in May.** The *Group* seeks to expand to a number of academics and practitioners in ASEAN universities, institutes and think tanks. The *Group* will conduct consultations with academics, policy makers, practitioners, ASEAN institutions and civil society organizations, to gauge interest in the approach and get suggestions for its design and implementation. To start this process, a one-day informal *Brainstorming Session* will be held at *Chulalongkorn University on May 10, 2013*, with a number of academics from across ASEAN (a dozen or so) to help formulate the AEMI vision and identify the research needed to develop it.

22. **August 2013:** an *AEMI Forum* will be held on *August 27-28, 2013*, at Chulalongkorn University, under the auspices of the *ASEAN Studies Center*, the *Faculty of Economics* and the *Energy Research Institute*, Chulalongkorn University. The objective is to discuss the AEMI vision, broaden the support for it, and agree on a way forward. The *Forum* would include 50-60 participants from among ASEAN experts, academics, policy makers, officials, as well as practitioners from the private and public sectors and the civil society. The *Forum Proceedings* would be published by the *ASEAN Studies Center*. Another prospective outcome of the *Forum* would be a short *statement* regarding the rationale for AEMI, along with a proposal to design the *AEMI Blue Print* in collaboration with a number of ASEAN academics and policy makers.

23. **September 2013- August 2014:** Based on the outcome of the *Forum* and its proceedings, and pending further funding for the project, the *Group* would draft *AEMI Blue Print*. A follow up *AEMI Forum* would be convened in *August 2014* to consider the draft *Blue Print*, which once finalized would be addressed to various energy decision making entities across ASEAN.

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<sup>19</sup> These notably include data from the 3<sup>rd</sup> *ASEAN Energy Outlook (2011)*, ACE; in several ERIA publications (2010-2012) about Energy Market Integration (EMI) in the East Asia Summit Region, as well as data from the “World Energy Outlook”, IEA. The IEA is presently conducting a comprehensive analytical study of the energy outlook for the ASEAN region as a special report in its forthcoming 2013 annual World Energy Outlook (WEO) series. The ADB has dedicated a feature chapter on “Asia’s Energy Challenge” in its *Asian Development Outlook, 2013*.

## ANNEX

### **THE AEMI PROJECT: OVERVIEW OF BACKGROUND PAPERS**

#### **BRAINSTORMING SESSION**

*Chulalongkorn University*

*9am-5pm, May 10, 2013*

1. A number of *Background Papers* (10-15 pages each) would be prepared to inform the *AEMI Forum* discussions (August 2013) and to help focus its Agenda. These short papers would not attempt to proceed with any original research or quantitative analysis at this stage, but rather build on the various publications and on easily available data sets. They would provide: (a) a brief synthesis of the current state of knowledge; (b) highlight the major challenges at work; (c) propose the elements of a way forward to address them, from a policy and operational perspectives, and (d) recommend the steps that need to be taken to convert the background paper into a publishable academic paper.. As such, they would initially serve as “briefing notes” to the various segments of the discussions at the *AEMI Forum* in August 2013, before subsequently being further developed into full-fledged publishable academic papers, in time for the *AEMI Forum* in 2014.
2. The objectives of the brainstorming session are for participants to: (1) vet the concept of AEMI and the approach to developing it; (2) revisit the components needed to meet the objectives of the project; and (3) help define the content of the supporting *Background Papers*.
3. This *Annex* offers an attempt to define the issues that would need to be addressed within each component of the AEMI Project, as defined in the main text of this document (and reproduced below in italics for ease of reference). It also provides, under each component, a few additional elements that could also be included in the *Background Papers*, for consideration and discussion by participants to the *Brainstorming Session*.

#### **A. Rationale for AEMI**

**OBJECTIVE:** *The first component of the project is to investigate the rationale for AEMI, and identify the potential benefits it would deliver to ASEAN members. The component would essentially:*

- (a) *Map out throughout ASEAN the energy market situation, indicating the extent and nature of the expected “energy gap” by 2030, and the potential sources of supply to address this challenge;*
- (b) *Establish whether AEC could deliver an efficient economic integration in the absence of an underlying integration of its energy markets, i.e. in the absence of AEMI;*
- (c) *Assess the benefits to ASEAN from full energy market integration under AEMI as part of the AEC agenda, from the economic, social and environmental perspectives (including climate change), relative to the current approach characterized by disparate projects and actions.*

4. The paper would examine the case for the creation of AEMI, arguing from the economic, social and environmental perspectives, including climate change. It would outline the potential benefits from the free flow of energy products and services across the AEC, notably in terms increased efficiencies in leveraging synergies, and in building on complementarities. It would also revisit the rationale and analysis of the benefits from the broader EMI for East Asia Summit countries, with a view to focusing the analysis on the narrower scope of AEMI, and drawing relevant conclusions for ASEAN. It would notably build on the analyses and papers produced by ERIA to assess the benefits of EMI, as well as those produced in the context of the discussion of energy integration within the EU.<sup>20</sup>

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<sup>20</sup> EU experience: *Energy 2020: A Strategy for Competitive, Sustainable Sources of Energy*, European Commission, 2010.

## ***B. Key building blocks for AEMI***

***OBJECTIVE:*** The *second* component would identify the ***key building blocks for AEMI***, namely those cohesive energy policies and actions that would gain from being elevated beyond the national levels, and folded into AEMI at the AEC level, for greater efficiency and leverage. The component would essentially investigate AEMI value-added relative to the current coordination approach, which would help determine the type of policies and structures that would belong to AEMI's building blocks. It would investigate in particular the building blocks needed for AEMI to:

- (a) Allow for a more efficient flow of energy across ASEAN
- (b) Create the enabling environment for investments in energy infrastructure projects (e.g., construction of pipelines for gas transmission, infrastructure for electricity transmission, and introduction of standardized smart electricity grids)
- (c) Enhance ability to generate promising new technologies for alternative and clean sources of energy and supporting their early-stage experimental deployment.

5. The paper would identify AEMI requirements for enhancing the potential for technological innovation. In particular, it would examine building blocks for AEMI that would allow: (a) scaling up technological advances to realize efficiency gains at the production and transmission levels (particularly for the grid) and to generate clean energy technologies; (b) pooling efforts to develop technology for renewable energy, to provide the investment basis to support them, and to allow for access to broader markets to commercialize them; (c) supporting the creation of alternative and clean sources of energy and their commercialization, so as to increase energy security and protect the environment; (d) creating efficiency gains from moving small scale energy generation from local to regional and subsequently cross border the large scale use of renewable energy within AEMI and (e) creating the critical mass for potential use of the Clean Development Mechanism (CDM) and tap into Carbon Trading Markets, as part of the contribution to address environmental concerns.

6. The paper would investigate the case for defining “energy efficiency indicators” that could be applicable through AEMI, and the impact of these notably when used by national governments for public transportation, buildings, public procurement contracts. This could also provide a useful instrument for regional and local authorities, municipalities and cities to use consistent energy efficiency indicators to monitor the use of energy, develop innovative “smart cities”, and introduce additional environmentally friendly energy saving measures where these do not already exist (e.g., recycling). Such energy efficiency indicators and standards would also help national public authorities to measure their efficiency relative to their objectives.

7. The paper would explore innovative market-based instruments to stimulate higher energy savings in the context of AEMI and review international best practice in adopting policy instruments towards this purpose. This would include incentives used to fund energy-efficient technologies and practices, innovative taxation and pricing approaches, and ways to encourage investments in the development of new efficient technologies.

8. The paper would consider the rationale for ASEAN to constitute its own emergency stocks of oil and gas reserves in the framework of AEMI. At the international level, countries members of the *International Energy Agency* (IEA) are required to maintain total oil stock levels equivalent to at least 90 days of the previous year's net imports<sup>21</sup>. None of the ASEAN is a member of the and thus do not hold access to such a reserve dedicated to IEA member states. The research would investigate if their current national reserve stock levels are sufficient, and if there is a case in building an ASEAN reserve, modeled over the own held by the IEA, and determine which conditions would trigger the release of such reserves.

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<sup>21</sup> As of July 2009, IEA member countries held a combined stockpile of almost 4.3 trillion barrels of oil. Among ASEAN dialogue partners, only Australia, Japan, New Zealand and South Korea are members of the IEA.

### ***C. Strategy for the emergence of AEMI***

***OBJECTIVE:*** The ***third*** component would spell out the **strategy for the emergence of AEMI**. This component would:

- (a) *Assess the institutional and governance dimensions for the creation of AEMI and its efficient operation. Based on best practice around the world, it would identify (both at the national and AEC levels) some of the operational and structural aspects needed to establish an efficient internal energy market under AEMI, and identify actions to be enacted at the AEC level to support them.*
- (b) *Analyse the geo-political economy dimensions for the creation of AEMI and its development. This would provide a better grasp of geo-political considerations of energy market integration, and a better understanding of the dynamics at work. It would further elaborate a strategy and stepwise pathway for achieving AEMI by 2030 and identify the sequencing of such steps, on the grounds of their interdependency, the net benefits they can deliver, and the ease of their implementation along the path towards AEMI. This would also provide a Road Map for the adoption of AEMI through ASEAN decision-making structures.*
- (c) *Review lessons from international experience from attempts around the world to create cohesive energy markets, within economic unions or beyond. It would focus on lessons learned from the EU, NAFTA, Mercosur, and initiatives conducted in Central Asia.*

9. The paper would review, from a political economy perspective, efforts deployed in the course of the last three decades or so to bring in more cohesion within the ASEAN energy markets. It would examine the dynamics that would explain the lag between the political discourse and the effective action in that field during the last 30-40 years, and draw conclusions so as to serve as lessons in shaping AEMI agenda moving ahead. In this respect, the learning from progress on delivering the GMS would be most relevant.

10. The paper would consider the geo-political and strategic incentives, as well as the sequencing for transitioning into AEMI, and assess the political challenges in adopting AEMI. It would outline a strategy and action plan to deliver it through 2030. This would include spelling out a *Road Map* indicating the next steps and time-table for the adoption of AEMI and its full implementation as part of the AEC