VII. The political economy of ASEAN Energy Market Integration

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Abstract

To date, concerted collective action related to energy has generally been limited to activities where the costs to the individual Governments are either negligible or do not outweigh the short-term benefits. In the meantime, the preference of ASEAN members appears to be for bilateral initiatives, either with other member States or with States outside ASEAN. In order to move forward with energy market integration, ASEAN needs to undertake two separate sets of tasks. The first is to identify which elements of AEMI should be feasible in the current political and economic situation, and then to rank further elements in order of difficulty and importance. The second, and more important, task is to identify what political, economic and institutional changes may be required within ASEAN members, and within the organization of ASEAN itself, in order to allow the more difficult and important elements of energy market integration to be provided. The approach to implementing AEMI is likely to be multi-track – different programmes and speeds for different fuels or types of activity – and involve initiatives by different sub-sets of member States ("2 + X"). Regardless of the approach to be taken to energy market integration, committed and sustained leadership will be required from two or more ASEAN members in order to overcome inertia and maintain momentum.

A. Introduction

The preceding AEMI background papers in this publication have systematically reviewed the benefits and opportunities offered by ASEAN Energy Market Integration (AEMI), and have identified national constraints, examined the governance and institutional requirements, and mapped a pathway to AEMI.

The aim of this chapter is to examine the political economy context of energy market integration in ASEAN in order to build a better understanding of the political dynamics at work, both at the ASEAN level and beyond. Such considerations are necessary in order to align the economic principles and objectives of AEMI with the political reality of energy in ASEAN.

Section B starts with a general analysis of the political economy of energy market integration and ASEAN's capacity for collective action, before examining the progress of ASEAN energy market

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integration to date in section D. Section E outlines the principles that could underpin strategies and pathways to achieve AEMI. Section F provides the summary and conclusion.

B. The political economy of regional energy market integration

The aim of this section is to outline the key political economy factors that may assist or constrain energy market integration anywhere in the world. First, the importance of collective action in energy market integration is highlighted, followed by an examination of the role of actors and institutions, and the importance of trust.

1. Need for collective action

Energy market integration is a process through which a range of infrastructure and services related to energy are provided across a region through collective action. As explained by Andrews-Speed and Hezri (2013) through the lens of regional public goods, the provision of some goods requires a higher level of collective action than that needed for other goods. Those goods that require a lower level of collective action, such as research and development or the construction of emergency oil storage, can be left to those parties that have the greatest desire for, and capacity to deliver the good.

In contrast, those goods that require a high degree of collective action, such as the operation of a regional energy grid or of an oil stock sharing system, can only be delivered reliably if organizations and rules are established to oversee and ensure implementation. This is likely to require the delegation of authority of some elements of energy governance, which in turn may be perceived as a loss of sovereignty.

Many Governments, including those in South-East Asia, tend to regard energy security within the narrow context of national security, thus justifying heavy government control. Such a highly politicized nature of energy constrains the willingness of many Governments to engage in such collective action, or market liberalization of the national energy sectors, however beneficial it may be in principle. This politicization arises from the perceived and actual links between energy supply, on the one hand, and economic development, industrial policy, employment, social stability and national security, on the other hand. For this reason, the national constraints to energy market integration can take on a highly political form, especially those related to the governance of the energy sector and energy supply, both of which can shape the influence and interests of key actors in the sector.

2. Role of actors and institutions

Collective action to deliver a regional public good requires a convergence of interests between different actors (state, corporate and societal). Given the importance of the interests of the different actors, stakeholder analysis can provide a useful tool for identifying the important actors and their perceptions and interests, the resources they have at their disposal and the relationships between them (Reed and others, 2009). However, a focus on actors should not detract from understanding the nature of the environment in which they operate. This environment includes the nature of the resource and technology applied to exploit and use it, and the formal and informal rules of the community within which the actors operate (Aligica, 2006).

These formal and informal rules are referred to as “institutions” in the terminology of New Institutional Economics (North, 1990 and 2005; Williamson, 2000). Analysis of these institutions

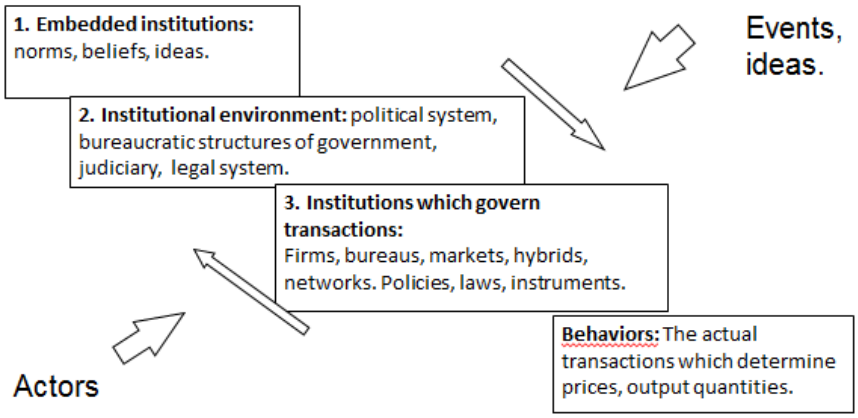
can provide insights into the barriers to collective action beyond those identified by applying public goods theory.

Figure 1 shows that within a particular country or society it is possible to identify the different levels of institution (Williamson, 2000). At the highest level are the "embedded institutions", which include beliefs, traditions and behavioral norms. These tend to change quite slowly, over many decades or centuries.

The next level of institution is known as the "institutional environment" wherein lie the general systems by which the economy, polity, society and the law operate. The institutional environment can change over a few decades or several years, but the pace and nature of such changes may be constrained by the embedded institutions.

At the lowest level are the institutions that directly shape actor behavior and individual economic or political transactions. These include individual laws, regulations and contracts as well as prices set by markets or governments. Institutional change at this level is constrained, to a certain extent, by the institutional environment. If change at this lower level of institution greatly outpaces change in the institutional environment, then the institutional framework may become unstable, and open to sudden and unpredictable change. Stability is maintained by implementing change incrementally and in a coordinated manner.

Figure 1. Schematic representation of the three levels of institution



Source: Adapted from Williamson, 2000.

In the context of AEMI, the study of institutions can provide insights in a number of ways:

(a) The perceptions, preferences and motivations of an actor (whether government, corporate or individual) will be shaped to a great extent by the embedded institutions and institutional environment within which the actor operates. Given the varied histories of the ASEAN members, the nature of the embedded institutions and the institutional environments differ between countries. It is therefore quite understandable

that their approaches to economic development, energy policy and energy market integration are highly varied;

(b) Sudden and radical reform of the institutions that govern a country's national energy sector is unlikely to yield the desired outcomes if the wider national institutional environment remains unchanged. Such a step runs the risk of a collapse of the energy sector and is likely to be resisted by responsible Governments;

(c) In a system comprising several layers of governance ("polycentric governance") there must be a reasonably good degree of fit between higher and lower levels of governance. In other words, in order to gain the support of key actors and to maximize effectiveness, institutions created to govern AEMI should have a reasonably good fit with the relevant institutions at the national level across the relevant countries.

Ostrom (2005) combined the analysis of actors and the wider environment in an institutional analysis and development (IAD) framework in order to illuminate the motivations for collective action. This approach distinguishes an "action arena", which comprises the actors and the specific "action situation", from the exogenous variables, consisting of the material conditions, the attributes of the community and the rules. Vatn (2005) developed a similar framework but integrated "attributes of the community" and "rules – in use" into a single factor "institutions". Such frameworks provide a systematic basis for analyzing actor choices, the interactions between these choices, the outcomes of these interactions and the feedback to actor choices and the wider institutional environment.

3. Importance of trust

It has long been recognized that trust is an important requirement for collective action and this led to the development of the concept of social capital (Coleman, 1988; Collier, 1998). Ostrom (2010) emphasized the importance of trust in managing the global environment, and identified the need for trust in two dimensions – between actors at the level of collective action, and between these actors and the government at a higher level. While the concept of social capital has no direct analogue in international relations, neo-liberalism emphases the potential for building trust between nations, and places great hope on international institutions' ability to create such trust and resolve conflicts. In contrast, neo-realists argue that there are limits to the potential for trust building and cooperation because of the anarchic character of the international system. They therefore focus on self-help to ensure their own survival as well as the primary means to manage and resolve conflicts they encounter (Waltz, 1979).

In the context of the governance of energy and natural resources, neo-realists identify the State as the key actor and place great importance on the need for States to control the access to energy and natural resources for strategic reasons. The liberal perspective highlights the important role of international markets in the production and flow of energy and natural resources, and the need for international cooperation to promote good governance (Dannreuther, 2013).

C. ASEAN's progressive integration

The aim of this section is to provide the general political economy background for the analysis of the political economy of AEMI. Integration within ASEAN and then integration by ASEAN with external actors and regimes are examined, followed by an assessment of the constraints to integration.

1. Internal ASEAN integration

Founded in 1967, ASEAN is a formal regional organization with a secretariat that was established through the ASEAN Declaration (or Bangkok Declaration) in 1967, by five States: Indonesia, Malaysia, the Philippines, Singapore and Thailand (Acharya, 2012). The founding principles were nation-building, economic development, solidarity against communism and collective security.

Today, ASEAN has a much wider political and economic agenda that reflects both internal and external concerns, including trade and investment, and it has grown to include 10 nations. In succession, Brunei Darussalam, Viet Nam, Myanmar, the Lao People's Democratic Republic and Cambodia joined ASEAN, the last only in 1999. In the South-East Asian archipelago, only Timor-Leste and Papua New Guinea remain outside ASEAN, though they have observer status.

The Treaty of Amity and Cooperation in Southeast Asia, signed in 1976, laid down fundamental norms that have subsequently underpinned the behavior of the ASEAN members. These include respect for the independence, sovereignty and territorial integrity of all nations, and non-interference in the internal affairs of one another (Acharya, 2012). These ideas were reiterated in the ASEAN Charter that was adopted in November 2007 and came into force in December 2008. The Charter included a number of other principles, notably Article 2.2., noting "adherence to … ASEAN's rules-based regimes for effective implementation of economic commitments and progressive reduction towards the elimination of all barriers to regional economic integration, in a market-driven economy". The key factors driving the creation of the Charter are: (a) for ASEAN to enhance its "regional resilience"; (b) "for ASEAN to be more competitive as an economic unit" in response to the rapid economic rise of China and India; and (c) for ASEAN members to "maintain and indeed gain political influence in the wider region" (Tay, 2008).

The economic agenda started to appear from the mid-1970s, after the end of the Vietnam War. However, the agenda only really gathered pace after the end of the Cold War and the Asian financial crisis in 1997-1998 as the ASEAN members realized the need for greater regional economic integration and closer integration with world markets. Today, the formally agreed objectives of ASEAN are wider ranging, covering security, trade, investment and cultural goals. In 2003, the member States drew up an ambitious vision through the Bali Concord II and announced that their aim was to establish an ASEAN Community built on the three pillars of "political and security cooperation, economic cooperation and socio-cultural cooperation".[3] They also agreed to pursue closer economic integration by 2020 through the creation of an ASEAN Economic Community (AEC).

Key components of AEC that are relevant to energy are the ASEAN Trade in Goods Agreement and the ASEAN Comprehensive Investment Agreement, both signed in 2009. Together, these two Agreements seek to promote the free flow of trade and investment within ASEAN.

The AEC, together with the ASEAN Political-Security Community and the ASEAN Socio-Cultural Community, form the basis for the emerging ASEAN Community (Acharya, 2012). These ideas were consolidated in the ASEAN Economic Community Blueprint issued in 2007, which set out the measures to be implemented to create a single market for goods, services and capital by 2015.

[3] The 2003 Declaration of ASEAN Concord II adopted by the Heads of State/Government at the ninth ASEAN Summit, Bali, Indonesia on 7 Oct 2003. Available at http://cil.nus.edu.sg/rp/pdf/2003%20Declaration%20of%20ASEAN%20Concord%20II-pdf.pdf (accessed 3 July 2013).

Economic integration has also been driven by firms (state-owned and private) as they trade and invest across the region, and build international production networks that, in turn, may develop into subregional growth polygons (Dent, 2008). Where firms have the capital and find the opportunity and incentive they, with support from banks, are likely to be the main actors in trade and investment. In some cases, state-owned enterprises may have some advantages over privately-owned companies through their lower cost of capital and preferential access to funds from their home country banks. There is also a "political" dimension in doing business in key sectors within ASEAN countries whereby local businesses lobby their politicians to keep overseas competitors out of their local markets.[4]

Before the start of the Asian economic crisis in 1997, civil society engagement with ASEAN was mainly through academic and business networks and associations. Since the economic crisis, civil society organizations and non-governmental organizations have increasingly appreciated the value of engaging with ASEAN. During the same period, ASEAN itself has created a number of forums for engaging with civil society, such as the ASEAN People's Assembly, the ASEAN Civil Society Conference and the Solidarity for Asian People's Advocacy (Chandra, 2006). However, despite these steps, active engagement of civil society with ASEAN policy-making remains limited, both by the limited capacity of ASEAN itself and by the general unwillingness of some member country Governments (Chandra, 2006; Acharya, 2012).

2. Integration with external partners

In addition to taking internal initiatives, ASEAN has become a key actor in building institutions to promote wider regional and supra-regional cooperation. Openness to international trade and investment have long been important priorities for ASEAN members, and this external engagement was further enhanced after the Asian financial crisis in 1997-1998, which drew attention to the need to build external economic cooperation, especially with North-East Asia. In the following years, ASEAN concluded a number of Free Trade Agreements with North-East Asian States (China, Japan, Republic of Korea and Taiwan), as well as with Australia, New Zealand and India.

The 10 ASEAN members and their Free Trade Agreement partners – Australia, China, India, Japan, Republic of Korea and New Zealand – also launched a new economic initiative called the Regional Comprehensive Economic Partnership (RCEP). This is a 16-party Free Trade Agreement first announced in November 2011 as an ASEAN-led initiative aimed at broadening and deepening economic engagements with its FTA partners; negotiations to be completed by the end of 2015.

ASEAN's growing interest in North-East Asia stimulated the formation in 1997 of ASEAN+3 (Japan, China and the Republic of Korea). This grouping started with its focus on financial and economic recovery, but later expanded to cover many fields, including infrastructure, energy, the environment, food, disease control and maritime piracy. Economic links between ASEAN and North-East Asia are deeper than those within ASEAN, with intraregional trade across ASEAN+3 amounting to 55 per cent by 2005. However, this economic integration had been driven by businesses rather than by Governments, especially through the means of international production networks (Dent, 2008).

ASEAN+3 soon led to the creation of yet another, even larger cluster that became known as the East Asian Summit (EAS) with the objectives of (a) facilitating confidence-building and discussions

[4] "DBS Acquisition plan 'political' ", *Jakarta Post*, 2 April 2012. Available at www.thejakartapost.com/news/2012/12/01/dbs-acquisition-plan-political.html (accessed 1 December 2013).

on broad strategic issues that concern the region and (b) developing East Asian regionalism in an inclusive manner (Desker, 2005). At its first meeting in 2005, EAS comprised the 13 members of ASEAN+3 and Australia, New Zealand and India. The United States of America and the Russian Federation joined in 2011. The agenda is mainly to promote strategic dialogue and cooperation in East Asia, including energy issues, but concrete progress is constrained by differences of opinion on the membership, role and objectives of EAS, and on its relationship with ASEAN+3 (Dent, 2008)

In addition, ASEAN participates in the Asia Cooperation Dialogue Pacific Economic Cooperation Council and in the Asia Pacific Economic Cooperation (APEC). It also has bilateral arrangements with other regional organizations such as the Gulf Cooperation Council, MERCOSUR, the Southern African Development Community, the Shanghai Cooperation Organization, and the Organisation for Economic Co-operation and Development as well as a number of United Nations organizations.

3. Constraints on ASEAN integration

The conscious efforts of the past 46 years to enhance regional security, promote economic development and build a sense of regional identity have met with a significant degree of success despite many obstacles, not least of which has been the high degree of diversity among the member nations. The deliberate focus on shared interests, priorities and norms has allowed a shared and distinctive sense of regionalism to emerge. This regionalism is not just inward looking, but explicitly supports external economic and political links (Severino, 2006; Acharya, 2012).

Despite this important achievement, ASEAN has fallen short of expectations in a number of ways. It shown the ability to manage or defuse disputes but not to resolve them. Its capacity for building institutions remains weak and the implementation of policy initiatives is generally slow, except at times of crisis (Severino, 2006; Acharya, 2012).

These apparent defects are understandable for a number of reasons. Most ASEAN members are young nations that only emerged from their colonial past after the Second World War or after the Cold War. Several have weak state capacity and are very sensitive about sovereignty. In such cases, regime survival is more important than collective action with neighbors (Nathan, 2010) and state-building more important than governance (Yu and He, 2011). Decision-making has become more difficult after enlargement from seven to 10 members, not least because of the low state of economic development of the new members and their differing political heritage. The result is a preference for informality and loose arrangements that are not compensated by the provision of sustained leadership by one or two countries (Severino, 2006)

The capacity for collective action is further weakened by longstanding distrust, sometimes dating back hundreds of years, sometimes to the Cold War. Current aggravating factors include unresolved disputes over land borders and maritime demarcation, ethnic unrest in border areas, and illegal migration and smuggling. Relations with major powers outside ASEAN continue to be a source of irritation. China and the Soviet Union played an important unifying role in the early years of ASEAN as the organization was essentially anti-communist at that stage, but at the same time ASEAN did not want to get too close to the United States and the West in general. In recent years, both the United States (with its "Pivot and rebalancing to Asia") and China have been deepening their engagement in South-East Asia, moves that have the potential to undermine ASEAN unity, especially in the context of the South China Sea.

Although bilateral relations between most States have improved over the past 20 years (Ganesan and Amer, 2010), tensions sometimes come to the surface during a crisis (e.g., the Asian financial crisis in 1997/1998. Yet such crises often provide the incentive for renewed efforts to build an economic community (Acharya, 2012).

In addition to these largely political dimensions of inter-State relations, a number of important economic factors act to weaken the desire for, or to constrain, the implementation of economic integration. These include differences in levels of economic development, economic development models and priorities, and attitudes to environmental protection. Uneven development within the ASEAN region is likely to impede regional economic cooperation initiatives due to the variable governance levels among the different member States. Multilateral economic integration may also be undermined by the preference of some member States to develop bilateral economic ties (internal and external to ASEAN) rather than wait on ASEAN's multilateral arrangements (Dent, 2008; Solingen, 2010).

Applying the terminology of international relations, most ASEAN Governments appear to take a realist or neo-realist view of international political and economic relations, and look to ASEAN as a means of safeguarding their sovereignty and preventing external interference in their domestic affairs. This constrains the pace of implementation of ASEAN economic initiatives, and prevents any significant pooling of sovereignty or delegation of authority.

These factors, among others, have contributed to the relatively slow progress towards implementing the AEC. Although the ASEAN Secretariat (2010 and 2012) provides a strongly positive view of progress, other analysts have asserted that these reports exaggerate the speed of implementation, and that progress has been much slower than hoped in a wide variety of fields such as free trade utilization, competition policy and law, customs regimes, investment trade in services and non-tariff barriers to trade (e.g., Dosch, 2013).

D. ASEAN energy market integration to date

The aim of this section is to examine the progress of selected components of energy market integration across ASEAN and at smaller scales within ASEAN, and to identify the obstacles to progress. This account starts with the two most important elements of energy market integration, trade and investment, before examining in turn gas and electricity networks, unresolved maritime disputes, oil stocks, renewable energy and energy efficiency, and energy market integration across the wider region of East Asia.

1. Trade and investment

The free flow of trade and investment lies at the heart of the AEC. This principle should apply equally to trade in energy commodities and services and to investment in energy in order to pursue energy market integration. The two key agreements in this regard are the ASEAN Trade in Goods Agreement (ATIGA) and the ASEAN Comprehensive Investment Agreement (ACIA).

The goal of ATIGA is to reduce import tariffs all goods products to zero by 2015. Today, only four ASEAN members retain import tariffs for energy products such as crude oil, oil products, natural gas and coal, but these are due to be removed by 2015.[5] However, although import tariffs have been

[5] ASEAN Secretariat, ASEAN Economic Community, Annex 2, Tariff Schedules, available at www.asean.org/communities/asean-economic-community/item/annex-2-tariff-schedules (accessed 12 July 2013).

removed by most of the ASEAN members, a wide range of non-tariff barriers were identified by the ASEAN Secretariat in 2007.[6]

Many of these barriers persist today including, for example, state import monopolies and complex procedures for obtaining certificates of origin (Yulisman, 2013). As a result, the prospects for seaborne trade within ASEAN for crude oil, oil products and coal by 2015 are relatively good, but trade in oil and gas by pipeline and trade in LNG will require substantial investment. Despite this progress, some countries have long-standing domestic market obligations written into their production-sharing agreements for oil and gas, and both Indonesia and Viet Nam are reported to be taking steps to limit the exports of coal.[7]

At first sight, ACIA appears to be, as it says, a comprehensive international investment agreement designed to promote the free flow of investment across the region by providing for national treatment and investor protection. However, this appearance is deceptive, as a number of aspects of the agreement provide it with a very regional character, reflecting its origin in the process of ASEAN decision-making and the need to achieve consistency with the values and priorities of ASEAN members (Zhong, 2011).

The scope of application, and the exceptions and the reservations of ACIA provide the host Governments with great latitude in the application of the Agreement and thus capability to undermine the intent of ACIA in many sectors, including energy. With regard to energy, the scope of application includes the extraction of mineral and hydrocarbon resources as well as services incidental to this extraction, but does not include the construction and operation of energy networks and utilities, notable electricity and gas. A number of countries with oil and gas resources have listed the oil and gas industry among their reservations, and the general exceptions are wider than what is generally seen in international investment agreements. Finally, special exemption is given to the new member states, Myanmar, Cambodia and the Lao PDR, Myanmar and Viet Nam. In general, ACIA is a very cautious document (Desierto, 2013) that provides little support for the free flow of investment in the energy sector.

In summary, ATIGA and, to a greater extent, ACIA make only a limited contribution to supporting the development of the AEC in the energy sector and thus to the promotion of AEMI.

2. Gas and electricity networks

The story for network-bound energy also reveals constraints to integration. The ASEAN Power Grid (APG) and the Trans-ASEAN Gas Pipeline (TAGP) have long been seen as fundamental elements for AEMI,[8] and they are also elements of the Master Plan on ASEAN Connectivity (Das, 2013). Progress has been made on both projects, but most implementation has been pursued on a bilateral basis (Doshi, 2013). Little progress has been made to harmonize policies and standards

[6] ASEAN Secretariat, ASEAN Economic Community, Non-Tariff Barriers, available at www.asean.org/communities/asean-economic-community/item/non-tariff-measures-database (accessed 12 July 2013).

[7] "Indonesia eyes coal export curbs, tax", Reuters, 4 June 2012, available at www.reuters.com/article/2012/06/04/coal-asia-indonesia-exports-idUSL3E8H41QS20120604 (accessed 17 July 2013); and "Vietnam clamping down on coal exports as domestic energy needs rise", *Wall Street Journal*, 10 July 2013, available at http://online.wsj.com/article/SB10001424127887324879504578596901530238408.html (accessed 17 July 2013).

[8] ASEAN Medium-Term Programme of Action on Energy Cooperation, 1995-1999, available at www.asean.org/communities/asean-economic-community/item/asean-medium-term-programme-of-action-on-energy-cooperation-1995-1999 (accessed 12 June 2013).

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across ASEAN, or to address third-party access or tariff and taxation issues (Nicolas, 2009; Sovacool, 2009; ACE, 2013). One obstacle specific to TAGP is the continued failure to develop the giant East Natuna gas field for technical reasons. This factor, combined with (a) the stated preference of the Governments of Malaysia and Indonesia to save more of their gas production for domestic use, and (b) the rise of LNG trade, act together to steadily diminish the short-term economic necessity for TAGP (Doshi, 2013).

The TAPG project has been further undermined by a divergence of political and economic interests among key actors such as national Governments, national and international energy companies, and international agencies (Sovacool, 2010). The study by Sovacool (2010) revealed that some parties saw TAPG as a source of revenue, while others viewed it as the provider of energy services. For some, the project would promote integration within ASEAN; for others the priority was integration with external markets. Most importantly, national economic and energy interests appeared to outweigh regional public good considerations (ACE, 2013).

Funding is the ultimate constraint faced by both APG and TAGP. The combination of low end-user tariffs, unpredictable legal regimes and divergent interests provide a strong disincentive to private investors to commit funds to large, transboundary infrastructure projects in the region (Sovacool, 2009; Nguyen, 2013). To assist in addressing this challenge, the ASEAN Infrastructure Fund was established in 2011. More work is needed to build public-private partnerships and to develop national and regional capital markets (Pipoppinyo, 2013).

3. Unresolved maritime disputes within ASEAN

An important component of any regional energy market is that primary energy resources are available for exploitation, subject to national laws and policies as well as international law. This requirement is of particular relevance to ASEAN as the region is importing progressively larger quantities of primary energy (Institute of Energy Economics, Japan, 2011). A major obstacle to this exploitation continues to be the inability of a number of ASEAN members to resolve their maritime delineation disputes or, in the absence of such resolution, establish operational joint development zones. The South China Sea, which is believed to contain abundant oil and gas reserves, is such an example. Having said that, it should be noted that the notion of joint development is not new to the South-East Asian region. There are already joint development agreements in the Gulf of Thailand signed in 1979 between Malaysia and Thailand, and in 2009 between Malaysia and Brunei Darussalam (Schofield, 2011).

4. Oil stocks

Another policy element that has reappeared on the agenda for collective action is the establishment of some form of strategic oil storage and sharing system. According to the United States Energy Information Administration, the Government of Singapore maintains about 32 million barrels of crude oil and 65 million barrels of refined petroleum products in strategic petroleum reserves (Energy Information Administration, 2013). Indonesia, the Philippines and Thailand hold more modest level of stocks, while other ASEAN Governments such as Viet Nam are drawing up plans to build stocks (Risk and Policy Analysts Ltd, 2012).

A revised ASEAN Petroleum Security Agreement was signed in 2009 and ratified in March 2013. It provides for voluntary (not obligatory) measures in times of supply crisis, including emergency energy-saving measures and the sharing of oil or gas. It allows for, but does not oblige member States to construct oil stockpiles either individually or jointly. ASEAN+3 provides a wider framework for joint studies and information-sharing related to oil stockpiles. The sharing

mechanism has never been implemented as supply problems have been solved bilaterally between ASEAN members, with non-ASEAN oil producers or through oil traders (Nicolas, 2009).

5. Renewable energy and energy efficiency

The ASEAN Plan of Action for Energy Cooperation (APAEC) 2004-2009 set a 2010 target of 10 per cent for renewable energy as a share of installed power generation capacity.[9] This target was met and a new target of 15 per cent was set for 2015. National target setting for renewable energy is left in the hands of the member States, and coordination is provided through the Renewable Energy Sub-Sector Network. ASEAN has provided support for the deployment of renewable energy across the region through its ability to attract funding from the European Union, Germany and the Republic of Korea (ACE, 2013).

In the field of energy efficiency, ASEAN has set an "aspirational target" of reducing regional energy intensity by 8 per cent between 2005 and 2015. The main mechanisms it deploys in support of this goal are training, information sharing and sharing of best practice. Japan provides support technology transfer workshops and energy audits. As is the case with renewable energy, national target-setting for energy efficiency is left in the hands of the member States, and coordination is provided through the Energy Efficiency Sub-Sector Network (ACE, 2013).

One of the objectives shared by the strategies for renewable energy and energy efficiency is to promote the development of manufacturing capacity and trade across ASEAN in the relevant technologies and appliances. Progress in this regard has been hampered by a number of factors, such as weak technological capabilities and the lack of national technical standards (ACE, 2013).

6. Energy market integration across East Asia

Energy market integration is also on the policy agenda of EAS. Through the Economic Research Centre for ASEAN and East Asia (ERIA), EAS has supported an intensive research programme on the benefits and opportunities for energy market integration across the region (Wu and others, 2013).[10]

One important initiative within a subregion of EAS is the proposal to enhance energy cooperation in the Greater Mekong Subregion (GMS). The participating States include Cambodia, the Lao PDR, Myanmar, Thailand and Viet Nam, plus Guangxi Autonomous Region and Yunnan province of China. Specific objectives include (ADB, 2009):

(a) Improving access to energy;
(b) Increasing the use of indigenous low-carbon energy and reducing dependence on imported fossil fuels;
(c) Enhancing cross-border trade in energy, notably gas and electricity; and
(d) Enhancing energy efficiency and conservation.

As is the case with ASEAN, one of the core projects for GMS energy cooperation is the development of an integrated regional electricity grid. Following the signing of the Intergovernmental Agreement on Power Interconnection and Trade in September 2003, a Regional Power Trade Coordination Committee was established with the first meeting held in 2004. While significant progress continues to be made in connecting national grids, this has tended to be on a bilateral rather than a regional basis (Zhai, 2010). As a consequence, transboundary grid

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[9] ASEAN Plan of Action for Energy Cooperation, 2004-2009, available at www.eppo.go.th/inter/phil2004/ASEAN-apaec2004-2009.html (accessed 3 July 2013).

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[10] See also www.eria.org/research/energy/.

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connections are often tied to specific individual power plants with power purchase agreements. Although these allow for inter-State trading of electricity, such arrangements undermine the concept of an integrated regional power market (ADB, 2013). In addition, the Memorandum of Understanding to establish a regional power coordination centre had not been signed by all parties as of June 2013. Despite these deficiencies, the active participation of the Asian Development Bank has ensured that the programme of grid interconnection is being supported by capacity-building, feasibility studies and financing.

Cooperation among such a subset of ASEAN members has the potential advantage that challenges and interests are more likely to be shared than across a larger grouping. The inclusion of China in a GMS regional power grid also provides the first concrete energy link between ASEAN and the northern part of the EAS region, together with the new oil and gas pipelines from Myanmar to China. Notwithstanding these limited successes, considerable differences exist between the actors in the Greater Mekong Subregion, not least in political, cultural and economic development. As a consequence of these and other factors discussed above, progress towards achieving the stated objectives has been slower than hoped (ADB, 2013).

E. The way forward

1. Constraints to AEMI

The overall lesson from the analysis presented in this chapter is simple. The general political and economic constraints on ASEAN integration (see section B) are exacerbated by factors specific to the energy sector (see section C), and together these act to constrain progress towards energy market integration. Concerted collective action is generally limited to activities where the costs to the individual Governments are either negligible or do not outweigh the short-term benefits. Such costs may be political or economic. Self-evidently, a supply of external funding can ease participation in certain circumstances. However, such funding will be restricted to public sources unless there are profits to be made. In the meantime, the preference of member States appears to be for bilateral initiatives, either with other member States or with States outside ASEAN.

In the vocabulary of international relations, the core of the problem lies in the tension between the neo-realist outlook of many national Governments and the neo-liberal aspirations and rhetoric of ASEAN energy market integration.

In the vocabulary of economics, tensions exist between the liberal market ideology that underpins the concept of energy market integration and the state capitalist or state corporatist approach of many ASEAN Governments to the governance of their energy sectors. With regard to the latter, the interests of the national Governments and the interests of the state-owned energy enterprises are of critical importance. Relevant state interests include reluctance to pool sovereignty or to delegate authority to a regional supra-national organ, coupled with the view that energy is a national security matter.

State control over, and ownership of the energy sector may be part of the political ideology. Such control also allows a Government to use the energy sector to support other policies related to industrialization, employment, the redistribution of rents and social equity (through subsidized energy prices). There may also be a preference for enhancing the degree of self-reliance in energy supply rather than relying on imports. In some ASEAN members, these state priorities outweigh the incentives for energy market integration.

The state-owned energy enterprises, both national oil companies and energy utilities, form a core part of this policy approach. However, these enterprises have their own interests, and in many countries they have the power to obstruct moves by the Government to reform the sector.

These issues related to state interests and to state-owned energy enterprises are not restricted to ASEAN members, but prevail in all countries where the State has dominated the energy sector.

2. Looking ahead

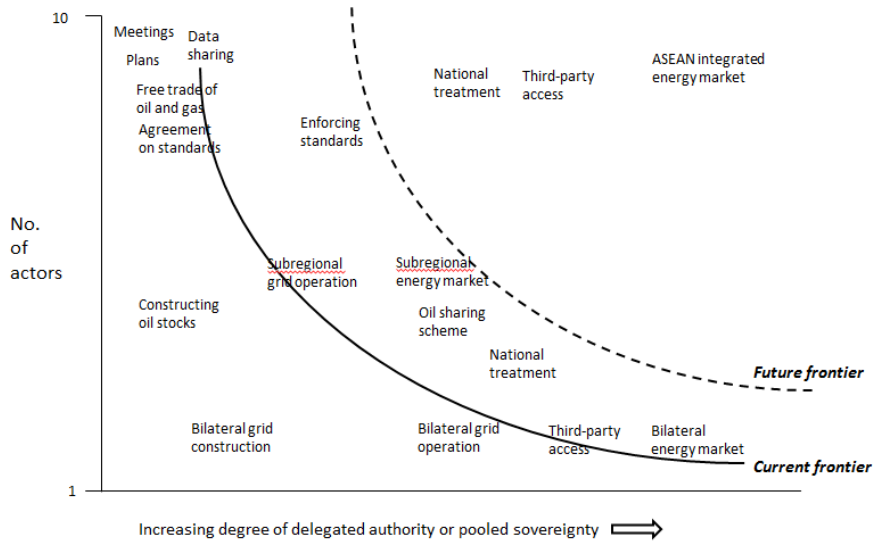
The analysis presented in this chapter and in preceding chapters (e.g. Andrews-Speed and Hezri, 2013; Navarro and Sambodo, 2013) allows two different sets of questions to be addressed:

(a) Identification of which elements of AEMI should be feasible in the current political and economic situation, and then the ranking of further elements in order of difficulty and importance;

(b) Identification of what political, economic and institutional changes may be required within ASEAN members and within the organization of ASEAN itself in order to allow the more difficult elements to be provided.

These two concerns are conceptualized in a single diagram (figure 2), which takes its approach from the diagrammatic tool of production possibility frontier theory. In figure 2, the vertical axis shows the number of actors (Governments) that are required to provide a given element of energy market integration, while the horizontal axis shows, in very general terms, the degree of pooled sovereignty or delegated authority needed to provide a particular element of energy market integration.

Figure 2. Schematic representation of the current and potential future possibility frontier elements of AEMI



The selection of individual elements of energy market integration shown is illustrative, not comprehensive. The solid curve shows the possibility frontier today, while the dashed curve shows the possibility frontier at some time in the future. Those elements that lie to the left of, or below the solid curve are in place today or should be possible today. Those elements that lie to the right or above the solid curve are judged to be too difficult today, and the further they lie to the right or above the curve, the more difficult they are judged to be. Pure energy market integration across the whole of ASEAN will only be achieved when all elements are in place and functioning well.

The examples of market elements show in figure 2 have been selected to illustrate a number of points:

(a) It is relatively easy for all 10 ASEAN members to hold a conference or issue a non-binding plan;

(b) It is easier for a sub-set of ASEAN than for the whole group of 10 to cooperate;

(c) The trade of crude oil, oil products and gas between ASEAN members will soon be free of tariffs, but the trade through networks of these energy products as well as electricity is severely constrained by the shortage of network infrastructure;

(d) It is relatively easy for a group of two or three neighboring countries to construct a transboundary network, but it becomes progressively more difficult to (i) jointly operate the network efficiently and safely, and (ii) create an integrated energy market around that network; and

(e) It is easy for a small number of countries to individually build strategic oil stocks, but it is much more difficult to create and implement an oil-sharing scheme.

The main challenge is to move the possibility frontier to the right in order to allow more elements of energy market integration to be implemented. In some countries, a combination of low-level economic development, limited energy infrastructure, shortage of funds and weak governance capacity are important constraints on their ability to participate in some elements of energy market integration. However, the more intractable constraints are to be found in the political economy factors summarized in section E of this chapter, i.e., the priorities and perspectives of national Governments and the influence and interests of state-owned energy enterprises. These factors constrain the willingness and ability of Governments to undertake significant reform of their energy industries and the liberalization of their domestic energy markets and energy prices, all prerequisites for substantial energy market integration to proceed.

While the full privatization of energy industries and the full liberalization of energy markets are unrealistic objectives for most ASEAN members in the next 10-20 years, steps can be taken to increase the flow of energy investment, commodities and services across the region.

Policy directions for the future are:

(a) Continue with the design and implementation of those elements of market integration across ASEAN that need little or no pooling of sovereignty or delegation of authority, such as sharing of energy data and best practice, capacity-building, constructing cross-border infrastructure, and promoting free trade in oil, gas and coal;

(b) Encourage “Two plus X” actions to implement elements that require significant pooling of sovereignty or delegation of authority. The membership of each can vary depending on the element of the market being addressed. These small groupings can then be enlarged as and when other member States are ready to join. Such groups will need to be able to agree and adhere to technical and regulatory standards, among other requirements, and to have trust in the other parties in the group;

(c) Follow a multi-track "approach". The nature and pace of implementation of the selected collective actions vary between different fuels and different types of activity, and would most likely build on existing subregional cooperative initiatives;

(d) Continue to build an understanding of the need for, and benefits to be derived from energy market integration in order to move the possibility frontier to the right, particularly for trade, investment and infrastructure.

In order to pursue these policy approaches, it will be necessary for ASEAN to enhance its central capacity for research, technical support and administration (Andrews-Speed and Hezri, 2013).

More important is the need for two or more member States to provide sustained and visible leadership and commitment to AEMI.

3. Directions for future research

Future research could focus on:

(a) Improving the empirical understanding of the political economy constraints to energy market integration in ASEAN;

(b) Drawing more detailed lessons from other examples of regional energy market integration; and

(c) Applying a selection of theoretical frameworks to interpret (a) and (b), and to develop a more sophisticated road map for AEMI.

F. Summary and conclusions

Conscious efforts by the ASEAN members during the past 46 years to enhance regional security, promote economic development and build a sense of regional identity have met with a significant degree of success, despite many obstacles. However, notwithstanding this important achievement, ASEAN has fallen short of expectations in a number of ways. It shown the ability to manage or defuse disputes but not to resolve them. Its capacity for building institutions remains weak and the implementation of policy initiatives is generally slow, except during times of crisis. In particular, the reluctance of member States to pool sovereignty or to delegate authority has hampered the development of multilateral binding agreements and the formation of an authoritative supra-national agency. As a result, progress towards the achievement of specific integration programmes such as AEC is much slower than hoped for.

Energy market integration is a process through which a range of infrastructure and services related to energy are provided across a region through collective action. The aims of such integration are not limited to enhancing economic efficiency, but include the delivery of external benefits that have the nature of a regional public good. Collective action to deliver a regional public good requires a convergence of interests and a high degree of trust between different actors.

The general political and economic constraints to ASEAN integration are exacerbated by factors specific to the energy sector, such as the role of state-owned energy companies, energy subsidies and the treatment of energy as national security issue. To date, concerted collective action related to energy has generally limited to activities where the costs to the individual Governments are either negligible or do not outweigh the short-term benefits. Such costs may be political or economic. Self-evidently, a supply of external funding can ease participation in certain circumstances. However, such funding will be restricted to public sources unless there are profits to be made. In the

meantime, the preference of member States appears to be for bilateral initiatives, either with other member States or with States outside ASEAN.

In order to move forward with energy market integration, ASEAN needs to undertake two separate sets of tasks. The first is to identify which elements of AEMI should be feasible in the current political and economic situation, and then to rank further elements in order of difficulty and importance. The second, and more important, task is to identify what political, economic and institutional changes may be required within member States, and within the organization of ASEAN itself, in order to allow the more difficult and important elements of energy market integration to be provided.

The approach to implementing AEMI is likely to be multi-track – different programmes and speeds for different fuels or types of activity – and involve initiatives by different sub-sets of member States ("Two~~2~~ + X"). Regardless of the approach to be taken to energy market integration, committed and sustained leadership will be required from two or more member States in order to overcome inertia and maintain momentum.

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