

Establishing energy cooperation in Northeast Asia: Implications from the experiences of the European Union

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Abstract

It is increasingly considered appropriate to deal with international energy issues, such as achieving energy market stability and energy supply security and countering climate change, on a regional or even global level. The large energy-importing countries in Northeast Asia – China, Japan and South Korea – have also begun discussing establishing cooperation on energy issues although some obstacles are in place. Based on the experiences of the European Union, strong top-down imposed cooperation helps creating a strong framework that ensures ongoing integration, but is less effective at achieving results for more specific issues. Therefore, establishing energy cooperation in the Northeast Asian countries should start bottom-up, although top-down cooperation should be aimed for at the same time. By focusing on some more concrete topics first, the cooperation that is established on the basis of these topics could then be used as a basis for further cooperation. Some topics that could have this function are technology transfer on energy efficiency, joint stockpiling, transportation safety, and external policy to enhance bargaining power towards supplier states. Looking at the experiences of the EU, it is more likely that cooperation will be established on other topics than security issues. Therefore, especially technology transfer could play a large role in establishing energy cooperation in Northeast Asia.

1. Introduction

The Northeast Asian countries have recently begun to feel the need to cooperate in the field of energy. As in all energy-importing countries in the world, fears have risen over security of energy supplies; and the issue of climate change that is strongly linked to energy consumption is an issue that cannot be dealt with by single countries alone. However, differences between the energy mix and energy strategy employed by China on the one hand and Japan and South Korea on the other hand, lack of trust between the countries for historical reasons, and the lack of a well-established framework that could facilitate cooperation, make that establishing cooperation on energy issues in the region

¹ This article is the result of research carried out by the author during an internship at the Institute of Energy Economics Japan from March to July 2007. The contents of this article represent the author's findings, and do not necessarily express the view of the IEEJ.

is far from straightforward. In order to make an assessment on what kind of energy cooperation could be achieved in the Northeast Asian region, this paper takes a look at European energy cooperation in order to assess what could be the implications from the case of the European Union (EU).

2. Energy cooperation in Northeast Asia

2.1 Energy supply and demand in Northeast Asia

The Northeast Asian energy market accounts for about 20% of energy supply worldwide, making the region one of the three largest energy markets in the world, together with the United States and Europe. Narrowly defined, Northeast Asia comprises China, Japan, and Korea,² and together these three countries account for around 70% of Asian oil demand.³ As the region is home to some of the fastest-growing economies in the world, energy demand in Asia is forecasted to increase faster than in the rest of the world, accounting for around half of the world's increase in energy demand by 2020, with China alone accounting for as much as 25% of the additional energy demand.⁴

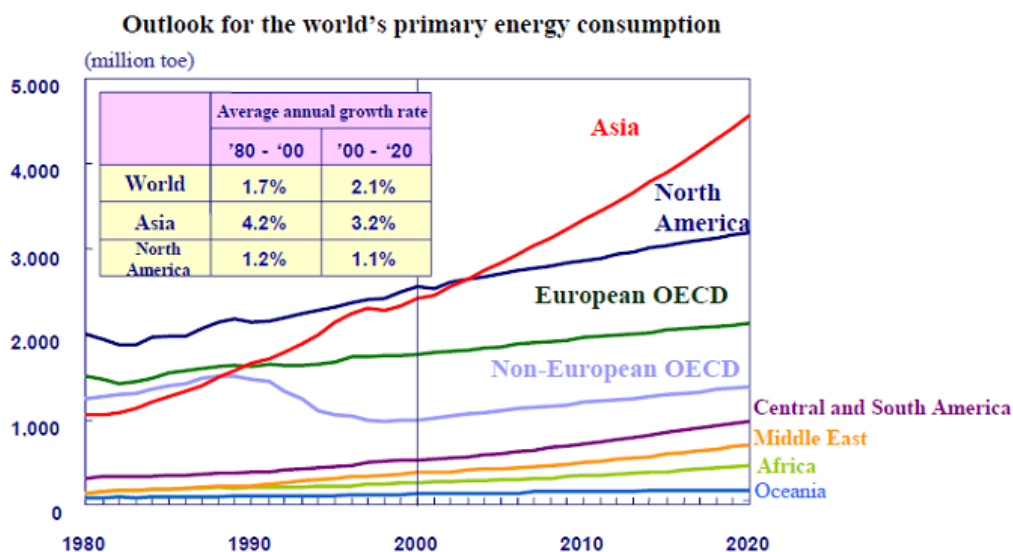


Figure 1: Projection of the world's primary energy consumption⁵

² When this paper refers to Korea, the Republic of Korea or South Korea is meant; the Democratic People's Republic of Korea or North Korea is not addressed in this paper.

³ APEC energy database, <http://www.iej.or.jp/egeda/database/database-top.html>.

⁴ Masahisa Naitoh, *Long-term Energy Perspective and Challenges for Japan and Asia*, WEC Asia Pacific Regional Forum, June 27 2005, <http://eneken.iej.or.jp/en/>.

⁵ Naitoh, *Long-term Energy Perspective and Challenges for Japan and Asia*.

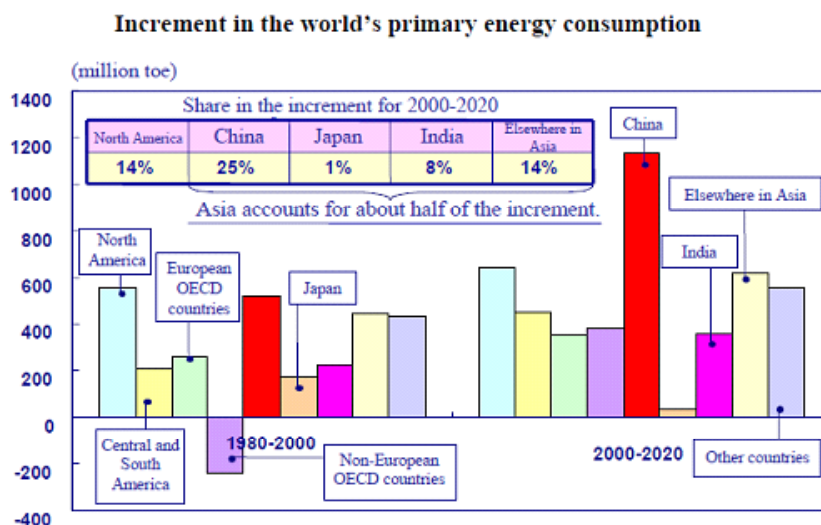


Figure 2: Increase world's primary energy consumption per country or region⁶

Therefore, the relative importance of the Northeast Asian market is likely to increase further, even though Japan and Korea are expected to show only very little growth in energy demand. This means that the dynamics of the energy market will not only be very important for Northeast Asia but that developments in the region will also have great influence on the world energy market.⁷

2.2 Measures taken to address energy challenges in Northeast Asia

Like other major energy importing countries in the world, the countries in the Northeast Asian region have recently started to worry about securing enough energy to fuel their economies. These worries are the result of a combination of the recent oil price spikes, increasing energy nationalism in the supplier states and under-investment in the upstream energy sector, and expected strong worldwide growth of energy demand, which is likely to have a tight energy market as a result. Therefore, the Northeast Asian countries have started to adapt their national energy strategies to the changing environment and are paying more attention to achieving energy supply security.⁸

⁶ Masahisa Naitoh, *Long-term Energy Perspective and Challenges for Japan and Asia*, WEC Asia Pacific Regional Forum, June 27 2005, <http://eneken.ieej.or.jp/en/>.

⁷ Ken Koyama (ed.), *Co-existence Scenarios of North East Asian Energy Consuming Countries*, Institute of Energy Economics Japan, July 2006, <http://eneken.ieej.or.jp/en/>.

⁸ See, for instance, METI, *New National Energy Strategy (Digest)*, May 2006, <http://www.meti.go.jp/english/>; MOCIE, *Toward 2010: Energy Policy*, <http://english.mocie.go.kr/language/eng/main.jsp>; and National Development and Reform Commission People's Republic of China, *The Outline of the Eleventh Five-year Plan for National Economic & Social Development of the People's Republic of China*, <http://en.ndrc.gov.cn/>.

Additionally, the national energy strategies are increasingly concerned with environmental issues,⁹ since the emission of greenhouse gasses during energy consumption is responsible for climate change and environmental pollution.¹⁰

But not only on the national level in Northeast Asia attention is given to increasing the security of energy supplies and countering climate change and pollution. Also the formation of some sort of energy partnership is considered to be useful to achieve these objectives by both policy-makers and researchers.¹¹ The main argument for dealing with these issues within a cooperation framework is that the main threats to energy supply security originate outside the energy-importing countries and it could therefore be more effective to deal with these threats multilaterally and coordinately. Such a partnership would have to enhance energy supply security for all countries in the region and ensure at the same time that the growing energy demand of the developing economies in the region does not result in fierce competition for energy resources, which might lead to a diminishing security situation. Furthermore, coordinated action to fight climate change is considered more useful than countries addressing this issue on their own, as it is a global problem. This partnership would thus function as an addition to the countries' national energy strategies.

A number of specific topics are specifically mentioned to be useful to be addressed coordinately. As all Northeast Asian countries are strongly import-dependent for oil, it is argued that cooperation could enhance the joint bargaining position of the countries in the region¹² to enhance security of supplies to the whole region: "Cooperation between the Northeast Asian countries will provide us with bargaining power, leading to advantages for all Northeast Asian countries."¹³ Furthermore, the energy supply security situation of all Northeast countries can also be increased by

⁹ See, for instance, National Development and Reform Commission People's Republic of China, *The Outline of the Eleventh Five-year Plan for National Economic & Social Development of the People's Republic of China*, <http://en.ndrc.gov.cn/>; and METI, *New National Energy Strategy (Digest)* May 2006, <http://www.meti.go.jp/english/>.

¹⁰ Nicholas Stern, *Stern Review Report on the Economics of Climate Change*, October 2006, <http://hm-treasury.gov.uk/>.

¹¹ See, for instance, Ken Koyama (ed.), *Co-existence Scenarios of North East Asian Energy Consuming Countries*, Institute of Energy Economics Japan, July 2006, <http://eneken.ieej.or.jp/en/>; METI, *New National Energy Strategy (Digest)*; and IEEJ, *The 27th Policy Recommendations 'The Establishment of an International Energy Security System'*, May 2006, <http://eneken.ieej.or.jp/en/>.

¹² IEEJ, *The 27th Policy Recommendations 'The Establishment of an International Energy Security System'*.

¹³ Masahisa Naitoh, quoted during conference on *Energy Security of Northeast Asia, the role of Japan and the US*, on April 4, 2007.

creating a joint stockpile mechanism,¹⁴ and by enhancing the safety of transportation of energy to and in Asia.¹⁵ In the area of dealing with climate change, an issue often mentioned as being a suitable topic for cooperation is technology transfer from the more developed countries to the lesser developed countries, in order to help them increase energy efficiency and conservation, and use energy in a cleaner fashion.¹⁶

2.3 Constraints to energy cooperation in Northeast Asia

Cooperation, however, is not a straightforward strategy in a region with much distrust based on historical experiences, and when a huge variety among the countries is in place in income level, energy mix employed and technological advancement. Therefore, there are great challenges to be overcome before such cooperation is established in Northeast Asia. Firstly, energy security is generally considered to be of such importance that it touches upon the sovereignty of countries and giving up some of this sovereignty can prove to be something that countries are not willing to do, or otherwise only on a very limited scale. Therefore, taking action on this on a multilateral basis would require strong trust between the members of the cooperation framework. It might take years of intensive diplomacy and trust building before even the slightest bit of such cooperation is in place. The greatest challenge for establishing cooperation in the region, according to some, is to ensure stable relations between Japan and China.¹⁷

A second reason for cooperation being difficult is that the relations between the countries in Northeast Asia are not without obstacles. Relations can first of all be quite problematic for historical reasons and their present-day follow-up. An often-mentioned example in this respect is the issue of the Japanese prime-ministerial visits to the Yasukuni shrine, where, much to the anger of China and Korea Japanese war criminals are enshrined. The choice to visit the shrine is therefore always a delicate one. Secondly, disputes over land and over energy resources between the different countries in the region exist. Japan and South Korea both claim the Dokdo or Takeshima Islands in the Sea of Japan, and China and Japan both claim the Senkaku or Diaoyu Islands in the

¹⁴ Tomoko Hosoe, 'Japan's Energy Policy and Energy Security', *Middle East Economic Survey*, vol. 48, no. 3, January 2005; and Kensuke Kanekiyo, *Siberian Oil Pipeline and Its Implication for Northeast Asia*, IEEJ, June 2005, <http://eneken.ieej.or.jp/en/>.

¹⁵ Kensuke Kanekiyo, *Siberian Oil Pipeline and Its Implication for Northeast Asia*, IEEJ, June 2005, <http://eneken.ieej.or.jp/en/>.

¹⁶ IEEJ, *The 27th Policy Recommendations 'The Establishment of an International Energy Security System'*, May 2006, <http://eneken.ieej.or.jp/en/>; and Kanekiyo, *Siberian Oil Pipeline and Its Implication for Northeast Asia*.

¹⁷ For instance, in Ken Koyama (ed.), *Co-existence Scenarios of North East Asian Energy Consuming Countries*, Institute of Energy Economics Japan, July 2006, <http://eneken.ieej.or.jp/en/>, this factor was considered to be the branching point for scenario's on energy coexistence of the Northeast Asian countries.

South China Sea. Also a number of gas fields in the East China Sea are disputed by China and Japan. These are the Chunxiao or Shirakaba and Tianwaitian or Kashi gas fields, where China has recently begun exploration, to the distress of Japan that is afraid that China is drilling for gas that is legally Japan's. A third issue is China's strong economic development which has led to an equally impressive increase of energy demand, as shown in figures 1 and 2. This growth in demand leads to fears in Japan that their energy market with a growth of demand of around zero will become less and less attractive for suppliers.¹⁸ And finally, China is often accused of having an 'aggressive' importing strategy,¹⁹ for example because of its dealings with the Sudan, where China blocked UN military actions in the country that would be sent to create a solution for the violence in the Darfur area. All of these reasons contribute to distrust in the relationships over energy issues in the region.

A third reason why energy cooperation can be difficult to establish is where Japan and Korea share many characteristics of their energy mix and energy strategies, China has a very different energy mix and energy security strategy in place. When countries' energy mix deployed differ largely, it can be difficult to discover an area in which all countries share the same objectives and could leverage bargaining power.

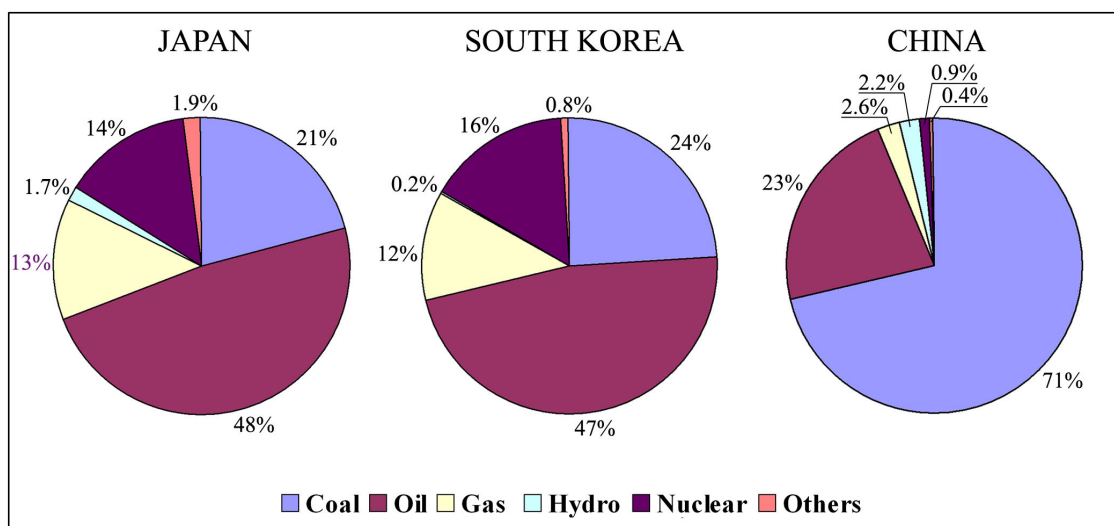


Figure 3: Primary energy supply of Japan, South Korea, and China²⁰

As seen in figure 3, Japan's and Korea's energy supplies are dominated by oil that

¹⁸ Jan-Hein Christoffels, 'Japan: nieuwe agenda voor energieveiligheid', *Internationale Spectator*, vol. 61, no. 7/8, July/August 2007, pp. 362-366.

¹⁹ METI, *New National Energy Strategy (Digest)*, May 2006, <http://www.meti.go.jp/english/>.

²⁰ Based on data from APEC Energy database, <http://www.ieej.or.jp/egeda/database/database-top.html>.

accounts for a little under half of their primary supplies. Also the share of coal, gas, and nuclear energy as a part of total energy supplies are comparable in size. And almost all of the gas supplied to both countries is in the form of liquefied natural gas (LNG). China's energy mix, however, is dominated by coal, which makes up 71% of the primary energy supply, and the country has only a small share of gas: around 3%. The differences in energy mix deployed have as an implication that there is another major difference between the energy supply security situations of Japan and Korea on the one hand and China on the other hand: the rate of self-sufficiency. Self-sufficiency is around 18% for Japan²¹ and Korea and around 90% for China, if nuclear energy is included in the self-sufficiency rate. The main reason for this is that China possesses a large amount of natural resources, especially coal, while Japan and Korea are very resource poor. Although there are also some similarities between primary energy supplies of the Northeast Asian countries, such as a high import-dependency for oil, these differences are likely to make cooperation more difficult.

A final reason why energy cooperation could be very hard to establish is because there is no strongly developed framework for establishing cooperation. Some regional partnerships, such as ASEAN+3, EAS and APEC, have been created in East Asia, all of which consider energy to be part of their objectives for cooperation, but there is no clear framework between the Northeast Asian countries only, although there are ties between China and Japan and Japan and Korea in the form of bilateral energy dialogues. Furthermore, Japan and Korea are IEA-members, while China is not. This situation makes it difficult to find the right framework for cooperation on energy issues in the region.

Thus, establishing energy cooperation between the Northeast Asian countries is considered to be useful in order to increase the security of energy supplies and to more effectively counter climate change. But, because of the differences in energy mix and energy strategy between the countries, the historical problems in the region and the lack of a strong cooperation framework, this is unlikely to be a straightforward process. Still, even though many difficulties have to be overcome, from another region in the world – the European Union – that already has overcome some of these difficulties, lessons might be learned in order to see what could be the way forward for cooperation among the Northeast Asian countries.

3. Energy policy of the European Union

²¹ IEEJ, *Fiscal Year 2005 Energy supply/demand*, March 2007.

3.1 History of European cooperation

European energy cooperation has taken place for more than fifty years; the European Union has its roots in cooperation over energy resources, namely in the European Coal and Steel Community. After the devastations of the Second World War, six European countries – France, Germany, Italy, Belgium, The Netherlands and Luxembourg – decided in 1951 that in order to make sure the continent would not see another war, they should cooperate on these vital resources. In 1957, this union was consolidated through the establishment of the Treaty of Rome that marked the official birth of the European Economic Community. Since then, the EU has known tremendous success as it has been able to achieve a unique degree of cooperation on a wide number of issues. Also the number of members has increased enormously: the Union now has 27 member states and at least two more are expected to join in the future.

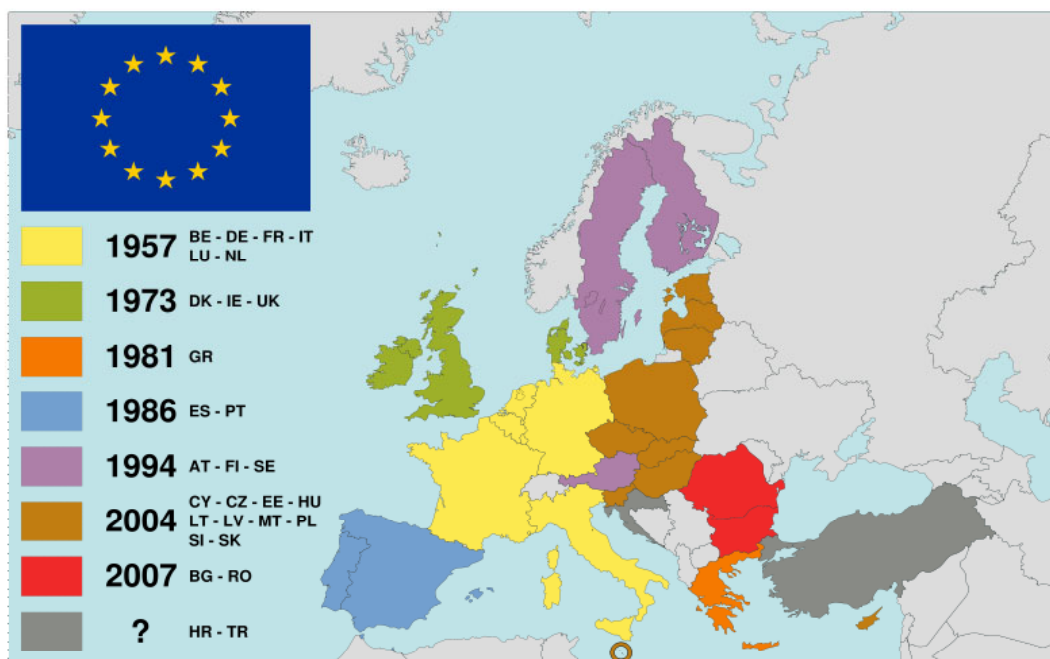


Figure 4: The process of enlarging the European Union

The European Union is first and foremost an economic community. This has been the case since the Treaty of Rome, which aimed at economic integration of the European countries through ensuring the free movement of goods, services, people, and capital. Economic policies, which aim at the creation of this single market, thus form the main body of EU policies: the European Community. In addition to this first pillar of EU policy, two other pillars have been added over the years: Common Foreign and Security

Policy, and police and judicial cooperation. Where the European countries can see the advantage of economic integration, it is considered rather undesirable to give up sovereignty in the fields of politics and law, thus resulting in an EU that is far more developed economically than politically. Next to promoting economic development on the continent, other factors have contributed to the process of European integration. It is often argued that the peoples of Europe share similar cultures and a similar history, which facilitated trust building and the forming of the Union. And at the beginning of European integration, an important aim was to prevent another war on a continent from happening. This spirit made sure there was great momentum for integration, which was further spurred by the rise of Russia as a common enemy and the forming of NATO as a security community under leadership of the United States, which made it easier for the European countries to focus on economic cooperation.

The uneven development of the three pillars is reflected in the difference between the decision making processes within the pillars. Within the Community, most policies are decided on by a qualified majority voting system that gives countries a voting weight that is relative to the number of inhabitants and to their importance within the EU. Furthermore, the European Commission, which represents the main executive body of the EU, has a clear mandate to enforce the decisions that have been made within the Community. Within the other two pillars, however, policies must be agreed on by unanimity to become effective. This means that all countries have to agree on a certain decision in the European Council, the main decision-making body of the EU, where every member state has only one vote. Making economic EU policies thus usually involves a less complicated decision making process than deciding on political or judicial issues, that often involve tough negotiations between the member states. This is especially the case in areas that member states consider to be crucial to their national interests. Although the degree of development of the policy areas thus varies widely, general trends over the past fifty years show that the more the EU member states integrate, the more difficult it becomes for the member states to make their own policies. And, the more pervasive EU policies become, the more necessity there is for further integration. This latter trend is called the *(neo)functionalist* advancement of integration.²²

3.2 The development of a common energy policy for Europe

²² The central argument of (neo)functionalism, is that integration puts an ongoing process of integration in motion, through *spill-over* effects. The most important theorist of neofunctionalism is Ernst B. Haas.

Within this complex entity of European cooperation, a common energy policy for Europe has been developed, although a coherent energy policy framework has not been established until recently. In March 2006 the European Commission published a Green Paper on energy which called for the development of an 'Energy Policy for Europe'. During the 50 years of European integration, a wide variety of energy-related policies had been added to the European Community and attention shifted according to the urgency that was felt to achieve certain goals at certain times. An important factor that influenced the attention that is given to energy is the situation on the world energy market. At times when the energy market was tight, attention to energy security increased. Although the EU has some energy reserves, the area as a whole is heavily import dependent. Currently, import dependence is around 50%, but it is expected that as European energy sources will reach their peak soon and demand will continue to rise steadily with around 1% or 2% per year, the EU's import dependence will rise to around 70% for gas and around 90% for oil.²³ This means that with the current tight situation on the energy market, energy has captured attention of policy makers and it is likely to remain a topic often discussed in European Council meetings.

At other times, however, energy issues, although never completely out of sight, were given far less attention on the European level. While the origins of the EU are in the European Coal and Steel Community, in the years following the Treaty of Rome, energy was barely mentioned within the EU framework. Following the oil shocks of the 1970s, attention was renewed and all over the world measures were taken for enhancing energy security, such as the establishment of the International Energy Agency. Some policies were also put into place on the EU level, but most security enhancing measures were taken by the member states on the national level. These measures proved quite successful and attention of the EU countries shifted to other aspects of energy policy: to energy market liberalization and to diminishing pollution as a result of energy consumption. Against the background of the liberalization of a number of national energy markets, and the wider economic integration of the EU member states, the energy market was rediscovered as an area where further integration of the member states' economies could take place and in 1988 the European Commission proposed the establishment of the Single Energy Market. Recently, attention to energy on the EU level shifted back to security of the energy supplies, as a result of the recent oil price spikes and increased resource nationalism. Especially the Russian gas cut-off to the Ukraine, which is the major transit country to Western Europe, on January 1st 2006, had

²³ European Commission, *Energy. Let us overcome our dependence*, 2002, http://europa.eu/index_en.htm.

a large effect on the spirit within the EU. Therefore, it is not a coincidence that the European Commission issued the Green Paper on energy in March 2006, in which is called for the development of a coherent EU level energy policy framework.

3.3 Policy for the single European energy market

The current EU energy policy embodied by the March 2006 Green Paper addresses three objectives: competitiveness, security and sustainability.²⁴ It gathers previously installed EU energy policies and identifies the areas that are should be developed further. The first objective, *competitiveness*, aims at further integration of the national energy markets to allow for more competition within the EU.

Achievements	Problems
<ul style="list-style-type: none"> - Single European energy market for electricity and gas (July 1 2007) - Convergence of taxing and pricing policies - Environmental standards - Price transparency - Guidelines for state aid - Commission functions as ‘watchdog’, with authority to punish countries 	<ul style="list-style-type: none"> - Many bottlenecks in interconnections national energy grids - Many large national energy companies have often not yet ‘unbundled’ - Member states still promote their national energy companies

On July 1st 2007, the single European energy market for electricity and gas was formally realized. From that date on, all European consumers have the legal right to choose their electricity and gas producer from anywhere within the EU.²⁵ In order to realize this internal market, measures have been taken to remove trade barriers, such as converging taxing and pricing policies, setting environmental standards, ensuring price transparency, and issuing guidelines for state aid.²⁶ Furthermore, the European Commission was appointed as ‘watchdog’ to guard the functioning of the internal market and was given the authority to punish countries that do not comply with the liberalization measures. Thus, countries saw some of their power over their energy

²⁴ Commission of the European Communities. *Green Paper. A European Strategy for Sustainable, Competitive and Secure Energy*, March 8 2006, http://europa.eu/index_en.htm.

²⁵ Commission of the European Communities. *Green Paper. A European Strategy for Sustainable, Competitive and Secure Energy*.

²⁶ European Union Summaries of legislation. *Internal energy market*, http://europa.eu/index_en.htm.

markets diminish and their policies converge to guidelines issued on the EU level.

However, in practice the internal market still has many imperfections. The member states' energy markets are still primarily nationally oriented, and there are many bottlenecks in the interconnections between the member states' grids.²⁷ In order to solve these problems, the Commission has identified two areas where improvements are especially necessary for further development of the internal market. The first is that extra investments are necessary for maintaining the national grids and for creating better interconnectivity; the Commission stimulates the member states to make these investments.²⁸ The second area identified for improving competitiveness is that in some member states large national energy utilities have not yet unbundled their control of the infrastructure from their business of selling electricity and gas as was stated in European regulations.²⁹ However, ownership unbundling is opposed by most member states, led by France and Germany. Therefore, the Commission has issued a number of warnings to the member states that have not yet complied with the regulations, but it is unlikely that all EU member states will see full unbundling within their energy sectors.³⁰ Also more generally, many member states continue to promote their national energy companies, instead of stimulating more competition. A notorious example of this was the intervention of the French government by promoting a merger of state-owned Gaz de France, with the French company, Suez, after Suez faced foreign take-over, to create the fourth largest energy company in Europe. Achievements in the area of creating an internal market for electricity and gas are thus quite extensive, but some problems persist; most notably in the areas of interconnection and ownership unbundling.

3.4 EU energy policy for sustainability

The second element of EU energy policy is *sustainability*. Among the sustainable elements of the European energy policy framework are targets for energy conservation (20% by 2020) and the amount of green energy as part of the energy mix (20% of the energy mix by 2020, with a minimum of 10% for biofuels).³¹ Furthermore, technological innovation in the areas of energy conservation and renewable energy sources is stimulated through subsidizing research. Also, the greenhouse gas emissions

²⁷ Commission of the European Communities. *Green Paper. A European Strategy for Sustainable, Competitive and Secure Energy*, March 8 2006, http://europa.eu/index_en.htm.

²⁸ Commission of the European Communities. *Green Paper. A European Strategy for Sustainable, Competitive and Secure Energy*.

²⁹ Commission of the European Communities. *Green Paper. A European Strategy for Sustainable, Competitive and Secure Energy*.

³⁰ Ed Crooks and Sarah Laitner, 'EU urged to force energy break-up', *Financial Times*, June 25 2007.

³¹ European Union Summaries of legislation. *Energy efficiency; Renewable energy*, http://europa.eu/index_en.htm.

allowance trading scheme has been established, which is a trading scheme for allowances to emit a tonne of carbon dioxide during a specific period. If only because of its scale – the EU accounts for about 20% of the world’s greenhouse gas emissions – the scheme is valued very positively by experts.³² A recent achievement in the field of sustainable energy policy is that a target for total EU CO₂-emission reduction has been set. Emissions will be cut by 20% from 1990 levels by 2020, or even by 30% if other developed countries commit to the same goal.³³ All these measures are aimed at making the European Union the leading energy market in the field of CO₂-emission cuts and renewable energy.

Table 2: The sustainability component of EU energy policy

Achievements	Problems
<ul style="list-style-type: none"> - Targets for energy conservation (20% by 2020) - Targets for green energy (20% of energy mix by 2020) - Subsidies for research on energy efficiency and renewables - Greenhouse gas emissions allowance trading scheme - Target for CO₂-emission reduction (20% or 30% by 2020) 	<ul style="list-style-type: none"> - Failure to reconfirm the target for green energy as part of energy mix - Member states issued too many emissions allowances - Division of member states’ contributions to CO₂-emission cuts has not been agreed on yet

Despite the positive reactions to the emissions trading scheme and the optimism of the European Commission that the EU will become the most environmentally-friendly energy consuming region in the world, the reality is still far from this ideal picture. Recently, the European Commission failed to reconfirm the targets for renewable energy to meet 20% of demand by 2020.³⁴ And even though the trading scheme is considered to be a success just because it is in place, in practice it does not work as well as it could; it suffered hugely from member states that issued more emissions allowances than were required, which resulted in a fall in the price of the allowances.³⁵ And with respect to the much-celebrated agreement on the carbon cuts, a general target

³² Anne Eckstein, ‘Experts call EU Emission Trading Scheme a success’, *Europolitics Energy*, no. 714, June 13 2007, p. 16.

³³ Europe’s World, *Dossier Energy: The broad thrust of Europe’s energy strategy*, no. 5, Spring 2007, pp. 108-121, <http://www.europesworld.org>.

³⁴ Europe’s World, *Dossier Energy: The broad thrust of Europe’s energy strategy*.

³⁵ Fiona Harvey, ‘Support for EU carbon scheme’, *Financial Times*, May 29 2007.

has been set, but the division of the contribution of the individual member states has not been agreed on yet. The new EU member states that are relatively less developed do not have to contribute as much as the overall target, but it is unlikely that the rest of the member states will voluntarily contribute more than the agreed target to make up for this. The overall problem with many of these environmental policies is that the EU can only function as guideline provider without much authority to punish member states that do not comply, as the real executive power is in many of these cases in the hands of the member states.

3.5 EU energy security policy

The objective of *security* refers to securing the necessary amount of energy supplies for the European market.

<i>Table 3: The security component of EU energy policy</i>	
Achievements	Problems
<ul style="list-style-type: none"> - Directives for petroleum stockpiles - Transport safety regulations - Directives for a diversified energy mix - External energy policy component: <ul style="list-style-type: none"> o Energy dialogues with suppliers are in place o Integration of neighbor countries and candidate member states into the EU energy market - Statement of solidarity in case of emergency is in place 	<ul style="list-style-type: none"> - Stockpile sharing mechanism in case of emergency is not in place - Few political achievements from energy dialogues with suppliers - Neighbor countries and candidate member states are not yet fully integrated into the EU energy market - Member states promote bilateral relations with suppliers

This aspect of EU energy policy comprises both strategies for emergencies and strategies that aim at increasing the security of energy supply on a longer term. Short-term security strategies include directives for petroleum stockpiles, and transport safety regulations. Strategies that aim at securing energy supplies on the longer term include guidelines for putting a diversified energy mix in place, and the development of an external energy policy that aims at improving relations with the supplier states and transit countries. After the development of a single energy market within the European Union, a common external policy is considered to have become useful for increasing

security of supply to the European market.³⁶ This external energy strategy consists of initiatives towards the energy supplier states and for cooperation with developing countries, and a number of initiatives for the neighboring countries and aspiring member states.³⁷ This latter group is more developed and focuses foremost on the integration of neighboring countries and candidate member states into the European energy market.

The security component is, however, the least developed element of EU energy policy and many problems exist. Although energy security is a topic that is of great concern to all member states, it is also the most difficult topic for establishing cooperation. On the EU level, an energy stockpiling system is in place, but an actual emergency system that defines the working of solidarity has not been developed. Furthermore, the external dimension of EU energy policy knows many problems. Within the energy dialogues with supplier states very few real successes are booked, most agreements do not include clear deals on supply for instance, and the neighborhood countries' energy markets are far from integrated into the EU yet; the EU has even been accused of not taking the neighbor's interests seriously.³⁸ And further development of the EU external energy policy is being undermined by some member states that rather develop their own, bilateral, relations with supplier states. Therefore, also in this area, more solidarity between the member states is called for.³⁹ Despite that some security measures are in place, the EU does not yet have a coherent energy security policy.

3.6 Mixed results of EU energy cooperation

European energy policy, thus, covers almost all aspects of energy policy. In this sense, the achievements of EU energy policy are great, even though many aspects are only covered in the form of guidelines for the member states. However, the development of the different components varies greatly: the objective of competitiveness in the form of creating the internal market is much more developed than the other two objectives. It is argued that this uneven development does not do justice to the current situation for the European energy market, as security concerns cannot be solved by completing the single market alone.⁴⁰ And, as described, the actual achievements in the area of security

³⁶ Clingendael International Energy Programme, *Reaction to the Green Paper Com (2006) 105 final*, September 21 2006, <http://www.clingendael.nl/ciep/>.

³⁷ European Union Summaries of legislation. *Energy. External dimension*, http://europa.eu/index_en.htm.

³⁸ Clingendael International Energy Programme, *Reaction to the Green Paper Com (2006) 105 final*.

³⁹ 'Eastern Europe repeats call for EU solidarity', *World Petroleum Argus*, June 25 2007, p. 4.

⁴⁰ Clingendael International Energy Programme, *Reaction to the Green Paper Com (2006) 105 final*, September 21 2006, <http://www.clingendael.nl/ciep/>.

are quite limited, leaving much room for improvement.

Two main reasons can be identified for the mixed results of EU energy policy. The first is that the policy framework aims at addressing many aspects of energy policy, which means that the framework is very comprehensive, but, therefore, also somewhat unfocused. And sometimes the different objectives are even conflicting. An example is that while in the short term a reasonable price for electricity and gas is desirable for the European consumers, a higher energy price might be an important contributive element for ensuring a more sustainable energy mix in the long term.⁴¹ The Green Paper is thus a first attempt at a coherent energy policy framework, but as over time, according to the urgency that is felt to achieve different objectives, elements were added to the framework, it has become too complex to get focused results.

The second, and perhaps more important, reason is the friction between the EU level policies and the member states' actions. One of the main causes of this friction is that the choice for the energy mix deployed remains a sovereign choice for the member states and will not be interfered with by the EU level. But as the member states have a very different energy mix in place, this makes it more difficult to design a common EU level energy strategy. Furthermore, the EU level framework largely consists of directories for the member states to be carried out, which means that, in practice, the member states still have the executive power. Where EU level policies could have negative consequences for the member states, they will thus try to obstruct the implementation of the EU level regulations or at least try to implement them in a way that is as advantageous as possible. This is for instance the case for the emissions trading scheme, as some member states handed out too many allowances to their companies, thereby undermining the scheme. Moreover, sometimes general objectives are agreed on, but the division between the different member states remains problematic, as is the case with the division of the CO₂-emission cuts target. And also, as EU energy security policy is still far from providing a secure energy supply situation for the member states, many of them rather keep things under their own control by promoting their national champions and fostering bilateral ties with supplier countries.⁴²

Thus, the reality is although some great achievements have been made, especially in the field of establishing the single energy market, the European Union is still far from achieving a coherent energy policy that is implemented by all member states. Therefore, it has been decided that in order to harmonize the member states' energy policies somewhat, an Annual Review of the national energy strategies will take

⁴¹ Clingendael International Energy Programme, *Reaction to the Green Paper Com (2006) 105 final*.

⁴² Clingendael International Energy Programme, *Reaction to the Green Paper Com (2006) 105 final*.

place on the European level, which should make further development of EU energy policy more smoothly. Although it might still take much time and many tough negotiations, according to functionalist theorists it is likely that more integration will take place between the member states in the field of energy eventually.

4. Implications from the EU for Northeast Asia

4.1 Lessons from EU energy cooperation

The European Union has a lot of experience with cooperation on energy issues. From this integration process some implications can be made for other communities that try to achieve energy cooperation. As heavily import dependent regions that aim for achieving a more sustainable energy mix and cutting CO₂-emissions, the EU and Northeast Asia share important policy aims, but the differences between the two regions are more striking. Within Northeast Asia, the differences between the GDP per capita of the countries are much larger. And in Europe, unlike in Northeast Asia, a strongly developed cooperation framework is present. However, besides the characteristics of the community, another factor can also be decisive for establishing energy cooperation: the external pressure of a tight energy market. This factor was a driving force for policy development on the EU level, and, as it is expected that the energy market will remain tight in the near future, this will likely be a strong driver for the Northeast Asian countries to cooperate. Some general implications from the EU for cooperation on energy issues will be made for establishing energy cooperation in the Northeast Asian region.

The main implication from the European case is that in order to establish cooperation, installing a top-down framework can be useful for creating common ground and for building trust between the different countries, but it can also prove to be an obstacle for achieving more specific goals on the short time, as it takes time to install such a framework. Therefore, the Northeast Asian countries could better find specific topics for energy cooperation first. If cooperation on these topics works, in a (neo) functionalist way further integration and trust-building is likely to follow, and it may lead to a continuing cooperation process. However, it should also be noted that this implication mainly follows from a region where a cooperation framework was already present, which is not the case for Northeast Asia. There, still many obstacles for cooperation are present and lack of trust between the countries can be observed. Therefore, while topic-wise bottom-up cooperation can provide a starting point, top-down cooperation should be attempted at the same time, to create a framework and

ensuring trust-building.

A second implication is that cooperation on energy issues should not focus on too many issues at the same time. EU energy policy comprises three large elements that are considered equally important, although over time attention shifts between the three elements. As shown from the case of the EU, this could mean that not all results aimed for are achieved and that sometimes even conflicting policies are adopted. In order to make sure that energy cooperation in Northeast Asia does not suffer from trying to achieve too many goals at the same time, the countries should focus only on some issues that are considered most important to get results for.

The third implication is that for topics where national interests are felt to be strongest, such as security issues, cooperation agreements are less likely to be achieved than for topics that aim at achieving common economic gains and increasing sustainability. Between the national level and the European level often friction was shown; the member states are reluctant to give up their power to the EU level, especially in the area of national security. Within the EU, besides the presence of external pressure of tight energy markets, the creation of the single market was central to overcoming some of this power struggle between the two policy making levels. This proved crucial for the development of energy policy and it continues to be crucial for integrating the neighbor countries' energy markets. In Northeast Asia, however, there is no aim of economic integration and for geological reasons no interconnecting grid or pipeline is present. Thus, sustainability-related topics are more likely to perform this function for integration. Later on, issues aiming at increasing security can be added.

4.2 A starting point for energy cooperation in Northeast Asia

From the experiences of the European Union, it can thus be concluded that in order to effectively increase energy supply security of the Northeast Asian region and diminish climate change at the same time, topical cooperation could provide the Northeast Asian countries with a starting-point for cooperation on energy issues. At the same time, top-down cooperation should be stimulated to remove some of the political barriers for cooperation. But in order to achieve some specific goals, bottom-up cooperation should not wait for these political processes to create a strong cooperation framework first. As described before, a number of issues is often mentioned as providing the Northeast Asian countries with a starting point for cooperation: technology transfer, joint stockpiling, transport safety, and a common bargaining position towards the energy supplying countries. These four topics are explored in order to assess their potential for establishing bottom-up cooperation in Northeast Asia.

4.2.1 Technology transfer

The first issue that was identified as a potential starting point for cooperation is *technology transfer*. The aim of this transfer of technology is to get a more sustainable energy mix and decrease the level of CO₂-emissions in the Northeast Asian region. This technology transfer would take place mainly from Japan to the other Northeast Asian countries, as Japan is the more advanced country in this area. Since the 1970s, Japan has focused on energy efficiency and its energy intensity has been improved by more than 30% over the past thirty years, making Japan probably the most energy efficient country in the world.⁴³ The countries in the region could profit from Japan's expertise; the country is around nine times more energy efficient than China,⁴⁴ and around four times more efficient than Korea.

Especially China, which is a large and inefficient energy consumer, is very interested in learning from Japan's expertise.⁴⁵ Recently, therefore, during a visit of China's premier to Japan, an agreement was reached to strengthen cooperation on energy issues that largely dealt with increasing energy conservation through technology transfer from Japan to China.⁴⁶ Some of the most promising technologies for cooperation are recycling, clean-coal technology, gas co-generation, operation of nuclear energy plants, and high-voltage transmission technology; a number of pilot projects are already in place in these areas. Furthermore, the two countries agreed that Japan's Ministry of Economy, Trade and Industry will train 300 Chinese government employees over the next three years in order to develop a Chinese conservation program.⁴⁷ It is considered unlikely however, that something like a free transfer of technology will take place. It is more likely, that a package deal will be made where Japanese companies get a share of China's market, for selling turbines for instance. And, even though this area seems a very promising one for establishing cooperation on energy issues, there are in practice some problems associated with technology transfer. Of the pilot projects that have been realized, not many have been commercialized yet.

⁴³ Kensuke Kanekiyo, *Lowering Energy Intensity toward Sustainable Development*, IEEJ, February 2006, <http://eneken.ieej.or.jp/en/>.

⁴⁴ Kensuke Kanekiyo, *Energy Outlook of China and Northeast Asia And Japanese Perception toward Regional Energy Partnership*, IEEJ, October 2005, <http://eneken.ieej.or.jp/en/>.

⁴⁵ David Pilling & Mure Dickie, 'Beijing learns from Tokyo's clean energy habits', *Financial Times*, April 13 2007.

⁴⁶ *Joint Statement by Japan and the People's Republic of China on the Further Enhancement of Cooperation for Environmental Protection*, April 11 2007, <http://www.mofa.go.jp>.

⁴⁷ *A Joint Statement by the Japanese Ministry of Economy, Trade and Industry and the People's Republic of China's National Development and Reform Commission on Enhancement of Cooperation between Japan and the People's Republic of China*, April 11 2007, <http://www.mofa.go.jp>.

And, most of the technology is in the hands of the private sector, and as long as the patents and intellectual property rights are not secured, actual technology transfer becomes unlikely.⁴⁸

The EU does not have much experience in the area of technology transfer. For instance, when in May 2004 the EU grew with ten new member states that were much less developed technologically no such projects were undertaken on the EU level. Although candidate countries have to comply with EU guidelines on energy efficiency within the framework of the Community Acquis, the EU does not actively support these countries in their efforts to achieve this. Only within the joint implementation framework of the Kyoto protocol that aims at reducing the amount of CO₂-emissions, some European countries helped some of the less developed countries to diminish their emissions, also outside the EU. Thus, it is difficult to derive any specific implications for technology transfer from the European case. The EU does, however, have some experience with cooperation on sustainable issues in general. One of the main problems in the area of sustainability is that although countries do see the importance and are willing to commit to it, they do not want to carry the burden economically. Within the EU, this was the case for the division of CO₂-emission cut targets and with the carbon emission trading scheme. Also in Northeast Asia this problem is present. China recently also stated that it will keep on promoting economic growth over sustainable development.⁴⁹ This is likely to make cooperation on sustainable issues more difficult.

Thus, it can be concluded that technology transfer is a very promising area for energy cooperation between the Northeast Asian countries, especially since a number of initiatives is already in place. But the general problem of investing in more sustainable energy consumption presents a trade-off over economic development is an obstacle for dividing the costs of cooperation on sustainability-enhancing topics, especially when the difference in income is large. Poorer, less economically developed countries with a low level of CO₂-emissions per capita expect the richer, more polluting countries to contribute more to diminishing emissions. This is the case within the EU, as well as in the Northeast Asian region. But, if this issue can be resolved, as well as the issue of securing intellectual property rights, this area should be a very fruitful topic for energy cooperation in Northeast Asia.

4.2.2 Joint Stockpiling

Secondly, it was argued that *joint stockpiling* could increase the energy security

⁴⁸ Pilling & Dickie, 'Beijing learns from Tokyo's clean energy habits'.

⁴⁹ Richard McGregor, 'China puts growth ahead of climate change', *Financial Times*, June 4 2007.

situation of the region and provide the Northeast Asian countries with a topic for establishing energy cooperation. The attitude to stockpiling Japan and Korea is, however, quite different from the situation in China. Japan and South Korea are both IEA members and thus have an emergency stockpiling system that stores at least an amount of petroleum that is the equivalent of ninety days of the total net oil imports.⁵⁰ In Japan this stockpiling is done by both the public and the private sector, that together hold petroleum stocks that are the equivalent of around 170 days of consumption.⁵¹ Furthermore, the Japanese government recently proposed an idea to Saudi Arabia to consider to keep part of their petroleum inventories on Japanese territory, in exchange for priority access to these reserves in case of an emergency. This strategy has been in place in South-Korea already, where next to the national petroleum stockpiling facilities, also petroleum stocks of Norway, Algeria and Kuwait are stored. China on the other hand is not an IEA member and has only recently started with building up petroleum stockpiles. The country aims to have 30 days of imports worth of stockpiling facilities in 2010.⁵²

Within the EU, a framework for petroleum stockpiling is already in place. According to European legislation, member states must hold stocks of petroleum products that are at least as large as 90 days' average daily internal consumption.⁵³ However, in order to truly boost security, these guidelines need to be complemented not only by statements of solidarity but also by defining the actual working of solidarity. Thus, even though creating a joint stockpiling system sounds like a very straightforward idea for cooperation that can easily create greater energy security, in reality it appears to be very difficult to establish such a system. Even within the EU countries, where much trust is present, no such system is in place, as only a guideline for the amount of petroleum stockpiling has been established, without defining further how this stockpile can be accessed or shared in times of emergency. Thus, it is expected that also in Northeast Asia it will be difficult to establish a joint system. It seems, however, likely that Japan in particular will continue to be interested in cooperation with China in this area to promote technical assistance, as they already have an agreement in place for access to each others stockpiles. Therefore, this could prove to be a topic to establish further cooperation from. But seen that this issue is security related, a clear joint

⁵⁰ International Energy Agency, <http://www.iea.org>.

⁵¹ Ken Koyama, *Japan's New National Energy Strategy*, Institute of Energy Economics Japan, August 30 2006, <http://eneken.ieej.or.jp/en/>.

⁵² 'Iran in talks to supply crude for China's strategic stocks', *Platts Oilgram News*, vol. 85, no. 114, June 12, 2007.

⁵³ European Union Summaries of legislation. *Minimum stocks of crude oil and/or petroleum products*, last update: March 2 2004, http://europa.eu/index_en.htm.

framework is unlikely to be established soon.

4.2.3 Safe Transportation

The third issue identified for cooperation is *safe transportation*. As all the Northeast Asian countries are heavily import-dependent, the safe arrival of their energy supplies is of crucial importance. Also, polluting the environment can occur during transport as a result of leaks or accidents, and also therefore, making sure that transportation of energy resources takes place safely is of great interest to the region. One of the most pressing problems for transport safety for the Northeast Asian region is the bottleneck of the Malacca Strait. In this bottleneck, where almost all of the oil to the region passes through, there is a threat of piracy.⁵⁴ Furthermore, if Russia becomes a larger energy supplier to the region, also the supply from that country could be a topic over which the countries in the region could establish cooperation. However, as the countries do not share a grid or pipelines, the issue of safe transportation is not limited to energy only.

Within the EU, a number of guidelines for safe transportation is in place. The goal of these guidelines is, besides aiming at safety of transport as such, also to improve the interconnection of the national grids in order to ensure proper functioning of the internal market, including making sure enough competition is in place.⁵⁵ Safe transportation regulations within in the EU are thus mainly aimed at maintaining the grids that make up the internal market for electricity and gas. But, even though countries share concerns over safety, as executive power is in the hands of the member states and private companies, some weak spots still exist, especially concerning interconnections between the national energy grids. Also, some countries do not strive for further integration into the single market. As there is no aim for integration of the national energy markets in the Northeast Asian region, this tension between achieving greater transportation safety and promoting national interests is not present. Therefore, especially the issue of the danger in the Malacca Strait can be used for establishing cooperation between the Northeast Asian countries. But, this is not an issue that is important for energy security only and it is, thus, not likely to be at the center of attention for cooperation on energy issues.

4.2.4 Common bargaining position towards suppliers

The final issue identified was the *common bargaining position* towards the energy

⁵⁴ Kensuke Kanekiyo, *Energy Outlook of China and Northeast Asia And Japanese Perception toward Regional Energy Partnership*, IEEJ, October 2005, <http://eneken.ieej.or.jp/en/>.

⁵⁵ European Union Summaries of legislation. *Electricity supply and infrastructure investment*, last update: March 30 2004, http://europa.eu/index_en.htm.

supplying countries. It is often argued that the heavily import-dependent Northeast Asian countries should cooperate to create a bargaining position towards their energy suppliers. This could be especially effective towards the Middle East, where most of the oil for the region is imported from (see figure 5).

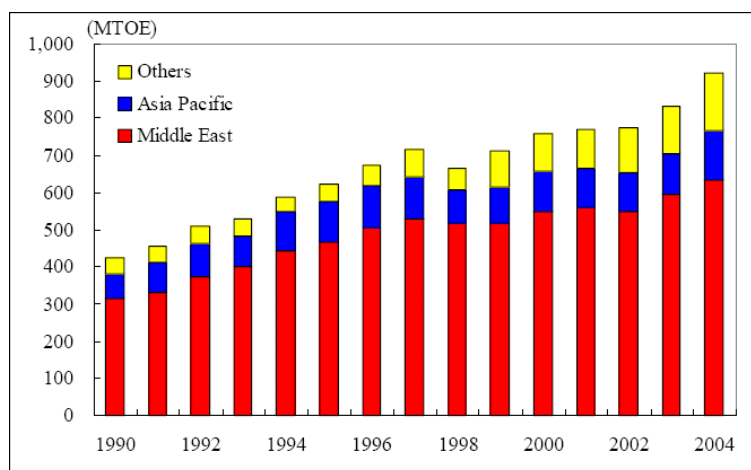


Figure 5: Asian oil imports by region⁵⁶

A more specific issue where a common bargaining position could be useful, is for is the issue of the Asian Premium. This is the issue where the price of a barrel of oil exported from the Middle East to Asia is around 1 to 2 dollars higher than the price for Europe and the US. It is considered useful to cooperate on these issues simply because the three countries would be stronger dealing with these issues together than dealing with them on their own.

A problem with creating a common bargaining position, however, is that not only the Northeast Asian countries employ a different energy mix; their energy supplying states differ too. Although all three countries depend largely on the Middle East for oil, Japan's and Korea's dependencies on Middle Eastern supplies are around 90% and 80% respectively,⁵⁷ but China has achieved a more diversified oil supply, importing large amounts of oil from Russia, Venezuela and from a number of African countries, such as Angola and the Sudan.⁵⁸ This makes it difficult to find a common ground for cooperation.

⁵⁶ BP Statistical Review of the World 2005, in Ken Koyama, *Energy Security Challenges in Asia*, Institute of Energy Economics, April 7 2006, <http://eneken.ieej.or.jp/en/>.

⁵⁷ Masahisa Naitoh, *Long-term Energy Perspective and Challenges for Japan and Asia*, WEC Asia Pacific Regional Forum, June 27 2005, <http://eneken.ieej.or.jp/en/>.

⁵⁸ 'China deepens African footprint', *Weekly Petroleum Argus*, vol. 37, no. 23, June 11, 2007.

In addition to having difficulties with finding a common position towards supplier states, the Northeast Asian countries also have their own energy strategies in place and often pursue bilateral ties with their energy suppliers. The Japanese government has formulated the objective in its *New National Energy Strategy* to increase the ratio of overseas energy resources development by Japanese companies to the entire import of oil to 40% by 2030.⁵⁹ Furthermore, a delegation of Japanese politicians and businessmen has recently undertaken a trade mission to several Middle Eastern countries to strengthen the relations.⁶⁰ South-Korea has fostered ties with the suppliers of the foreign stockpiling facilities on its ground, and it aims to become a regional oil hub.⁶¹ And China has strong ties with the African countries it imports oil from: the country provides these states with large sums of development aid in exchange for oil contracts.⁶² This implies a situation in Northeast Asia where it is not only difficult to agree on a common position, but where even friction between the different national energy strategies and a common cooperation framework exist.

This situation is similar to the situation in the European Union. As the EU is strongly import-dependent, and an internal market has been realized, it was considered useful to create a common external energy policy that should make sure that the EU was ‘speaking with one voice’ to the supplier states. A number of initiatives was set up, such as the Energy Charter Treaty, which aimed at setting up long-term cooperation on issues that increase security of energy supplies, such as protection of investments and transit issues,⁶³ the EU-Russia Energy Dialogue, and the Gulf Cooperation Council, which is a dialogue with the large oil-producing countries in the Middle East. These initiatives are, however, at best symbolic; they often include many statements for increasing security and sustainability, but almost no agreements on how this should be achieved exactly. And the relationship with Russia, the most important energy supplier to the EU, is also more about keeping each other up-to-date than that actual political results are produced.⁶⁴ Russia has always refused to ratify the Energy Charter Treaty, and the EU-Russia Energy Dialogue recently failed to produce any results; not even a joint statement was drafted.

Meanwhile, bilateral relations between energy producing countries and

⁵⁹ METI, *New National Energy Strategy (Digest)*, May 2006, <http://www.meti.go.jp/english/>.

⁶⁰ ‘Tokyo changes track in the Middle East’, *World Petroleum Argus*, June 11 2007, p. 7.

⁶¹ ‘South Korea Eyes Role As Asia’s New Oil Hub’, *Petroleum Intelligence Weekly*, vol. 46, no. 21, May 21, 2007, p. 2.

⁶² ‘China deepens African footprint’, *Weekly Petroleum Argus*.

⁶³ European Union Summaries of legislation. *European energy charter*, last update: January 30 2007, http://europa.eu/index_en.htm.

⁶⁴ Hughes Belin, ‘EU-Russia: “cold peace” rather than a new “cold war”’, *Europolitics Energy*, no. 714, March 13 2007, p. 11.

individual EU member states appear to be more productive. A notorious example in this respect is the development of the Nord Stream pipeline between Russia and Germany. This pipeline bypasses Poland which is distressed and fears shortages of gas when it will be piped directly to Western Europe via Germany. And this is not the only case in which the Russian gas company Gazprom is using the lack of coherent external energy policy by trying to play off the different EU member states; by offering bilateral contracts to countries that are tempted to secure the supplies to their own country, and become a 'hub state' in the face of a lacking robust common external policy. Italian oil company Eni, for instance, mirrors the Nord Stream project when it made a deal with Russia's Gazprom to build a southern gas pipeline from Russia directly to Austria and Italy.

Although bilateral relations appear to be more effective on the short term, cooperation between the EU and third parties such as the EU-Russia Dialogue should not be brushed aside as being irrelevant. Especially the symbolic meaning of the above-mentioned Dialogue is strong and it provides the parties with an official channel for communication. Furthermore, some successes have indeed been achieved on specific topics. An example is the removal of the so-called 'destination clauses' from all contracts with the Algerian national gas producer Sonatrach.⁶⁵ Destination clauses prevent buyers from reselling energy resources outside the borders of their nation, which is disadvantageous for the Single European Market in which energy is supposed to be distributed freely across national borders.

Thus, although establishing a common bargaining position towards the energy supplying countries appears to be a very promising area for cooperation that could have many benefits to the countries in the region, looking at the situation in Northeast Asia and at the experiences of the European Union, it seems very unlikely that cooperation in this area will take place in the near future. Even in the EU, where a strongly developed cooperation framework is in place, countries still prefer to promote bilateral ties. However in the case of the abolishment of the destination clauses the EU would probably not have achieved what it did if cooperation had not been in place. If the Northeast Asian countries can identify a topic that is likewise in their common interest, they might also be able to achieve a comparable result. Perhaps the issue of the Asian premium could function as a starting point for developing some cooperation, but generally it can be said that if the Northeast Asian countries would manage to establish cooperation in this area, it is only likely to happen in a more distant future.

⁶⁵ EU Press release, *Commission and Algeria reach agreement on territorial restrictions and alternative clauses in gas supply contracts*, July 11 2007.

5. Conclusion

Northeast Asian energy cooperation is a topic that is at the forefront of the attention at the moment. Facing a situation of tight energy markets and resource nationalism, the countries in the region hope to increase their energy supply security situation coordinately. Furthermore, they aim to consume energy in a more sustainable manner. However, within regional integration frameworks, such as the EU, countries are likely to keep on promoting their national interests rather than developing a common approach; especially in the case of security-related issues. Therefore, bottom-up, topic-wise integration is likely to be a better approach for the Northeast Asian countries to establish energy cooperation than a top-down approach of installing an extensive cooperation framework first. Nevertheless, installing a top-down cooperation framework on the same time is also necessary for taking away political obstacles. This topical cooperation could lead to a (neo)functionalist process of ongoing cooperation later on.

The most likely topics that could provide a start for this bottom-up approach for cooperation between the Northeast Asian countries concern sustainability, such as the transfer of technology to enhance energy efficiency and develop renewable energy sources. In May 2007, an agreement was reached between the Japanese and Chinese prime ministers to enhance cooperation and facilitate technology transfer from the energy efficient Japan to the very energy inefficient China. Afterwards, more security oriented topics such as stockpiling and safe transportation can be addressed, although especially achieving some level of common external policy is likely to prove very difficult. At the same time, not too many topics should be attempted to cooperate on at the same time, as this might lead to contradictory goals. Generally, it can be concluded that although energy security cooperation appears to have great potential, in practice it is very difficult to establish, even when the states have a long history of integration in place, like in the case of the EU.

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