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Energy cooperation in Northeast Asia as an impetus for intra-regional integration

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"Despite the numerous advantages that energy cooperation can bring to all countries in the [NEA] region, actual implementation will be a considerable challenge."
(Doh Hyun-jae, Energy Cooperation in Northeast Asia: Prospects and Challenges// East Asian Review. Vol. 15, No. 3, Autumn 2003, p. 103)

Introduction

Vague statements about the impetus for intra-regional integration within Northeast Asia (NEA) have lately been fashioned into more concrete forms of multilateral discourse on the prospects for economic cooperation. Due to a number of political and economic rationales, the energy and transport sectors of NEA economies have gained central importance and are turning to be the focal areas wherein integration initiatives are seemingly at forefront.

In this regard, this article is devoted to the theme of intra-regional initiatives in the energy sector of NEA. This work attempts to show the mosaic character of the ongoing processes that is testament to the complexity of issues associated with the development of international energy projects. Nevertheless, once such projects are started, it would be a giant step forward on the road to the implementation of intra-regional integration initiatives.

1. Issues of prime concern: existing hardships and emerging alerts

While having been activated in the last few years, the discussions on NEA energy cooperation of multilateral concern, in addition to a number of problematic points, have been broadened. Some of them in principal are of complex political-economic nature, like the so-called Asian Premium. Other issues are more of a technological or environmental character like the different countries incompatibilities in those fields.

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The Asian Premium

The prices of Middle Eastern crude destined for the Asian market have been higher than those for the USA and European markets by 0.94 $/b on average over the period from 1991, with an annual average increase sometimes to the tune of 1.5 $/b level.[1]

These higher oil prices – the so-called "Asian Premium" – have imposed an additional burden reaching up to 10 bln on the Asian market, thus wounding the international competitiveness of the Asian economies. The higher crude oil prices are not limited to oil, but have a far-reaching impact on the entire economy.

Since Japan, China and Korea are the largest energy importers in Asia, it is absolutely precise while talking about the Asian premium to consider this tripartite group as having created this problem, suffering from its consequences and extremely motivated to solve it.

Such an abysmal "premium" is caused by a number of contributing factors, principal of which are as follows:

- *Asia's heavy dependence on Middle East crude.* Generally high dependence on Middle Eastern oil is extreme for Japan and Korea. Lesser Chinese reliance can be explained by: (-) specific parameter of Japan's and Korea's refining systems; (-) designed to process heavy to medium gravity sour crudes; (-) desulphurization capacity is 75% of crude capacity; (-) effectively locks in Japan to Middle Eastern supplies. China's refining system (-) designed to process heavy sweet domestic crudes, e.g. from Daqing; (-) limited desulphurization capacity; (-) import of crudes is more diversified (imports from West Africa, the North Sea, South America, Russia, Asia Pacific);

- *robust Asian oil demand growth* and the lack of competition from alternative energy sources (refer to figure 1.);

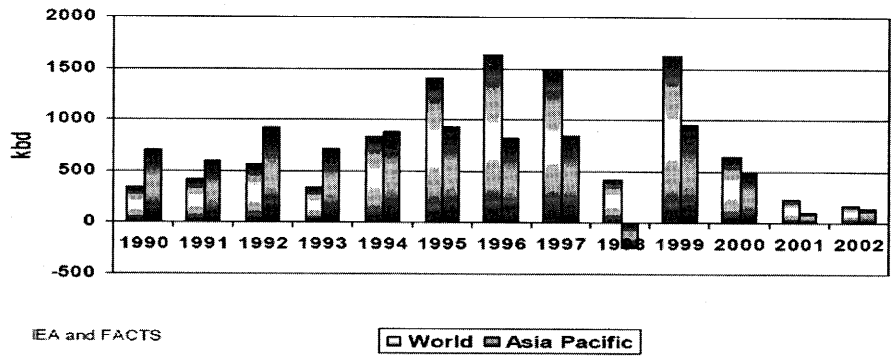

Figure 1. World and Asia Pacific oil demand

Source: Dennis Ang, The Asian Premium. Symposium on Pacific Energy Cooperation. February 12-13, 2003// <http://eneken.ieej.or.jp/en/forum/spec2003/030523p0094p08.pdf>

- *Japan's specific crude oil purchasing policy* comprising: (-) almost total dependence on imported crude; (-) Japanese companies emphasize the importance of a stable supply; (-) 80%~85% of crude supply from term contracts; (-) little room for spot optimization;

- *restrictions* imposed by Middle Eastern producers *on reselling crude* along with price forming practice on the basis: **P** export crude = **P** marker crude +/- **D**ifferential, where marker crudes are: Dubai / Oman for Asia Pacific; Brent Weighted Average (BWAVE) for Europe; and West Texas Intermediate (WTI) for the USA

- *competitive demand* of the European and US crude markets.

This premium has a large influence on the Asian economies. On the whole, the outcome of the issue is that the Asian premium undermines international competitiveness of the countries in the region. It happens due to the Asian Premium that:

- causes additional income transfer from Asian oil consuming countries to oil producing countries (5-10 bln annually);

- relapse of refinery margin since 1999 (recently expanded to minus value of about 1$/b); reduces refinery margin due to demand slowdown and surplus refining capacity since 1997; downs refinery margin due to higher crude oil price since 1999; discourages refinery operation in Japan, Korea, China; and

- affects prices of other energy resources such as of LNG and PNG, in addition LNG price rises through crude oil price. LPG contract price also shows ups and downs like in emergency time – one-way force by oil producing countries.

Since energy prices are established in reference to crude oil prices in Asia, the issue of higher prices is not only limited to oil but also applied to all other energy sources. As NEA is anticipated to enlarge its LNG import, the Asian Premium's influence on LNG price deserves more attention.

In fact, Japan's LNG import prices are determined by the formula, with Japan's average crude oil import price (CIF basis) as the marker. As the prices of LNG for the Asian market are determined on calorific value parity with crude oil, unlike the prices of LNG for the USA and European markets where they are set at levels competitive with pipeline gas prices, LNG for the Asian market has to face the premium problem of its own. Meanwhile, LPG prices have been notified unilaterally by Saudi Arabia to buyers under the system employed by Saudi Arabia at the end of 1994 and LPG consumers in Asia are currently suffering from high prices raised to the level that prevailed at the time of the Gulf crisis. Thus, Asian LNG and LPG price-forming practice also affects regional economics.

What are the measures to reduce the Asian Premium? Given the roots of the problem at hand, one of the logical answers is to reduce term and increase spot purchases, which are less

conservative. More regular spot market players will also ensure higher flexibility of the market. Other plausible consideration is to expand purchases of alternative crudes from the North Sea, North Africa, Russia, South America, and West Africa. In addition, accepting of Dated Brent as a price marker is thought to be helpful.

As had been noted, the Asian premium is of prime concern to NEA countries. Thus, while mulling over the future of the regional energy market it is important to understand, that on the whole, the problem of "premium" is from the underdeveloped character of the NEA energy market. There is enormous demand however there is no coordination between buyers from the region. Due to heavy regulations in the national sectors, there are no set of structures, technology and the system for trade in energy within the region. Consequently, reduction of the Asian Premium pressure is a matter of: - streamlining and expansion of the regions energy industries; - formation of the linkages between energy markets in Asia, Europe and the USA; - development of alternative crude purchases from outside the Middle East, most preferably by means of employment the neighboring resources of Sakhalin and East Siberia; and - development of new energy technologies like liquid fuels (GTL) from natural gas, etc.

Energy technology

LNG has been one of the most rapidly growing fuels. For Asia LNG has a very prominent role. That is to say, Asia appears to be the largest LNG consumer (14.6 and 3 fold bigger than the USA and Europe, respectively) with LNG composing 97% of natural gas consumption in the region (as opposed to 1% and 8% for the USA and Europe)[2]. In the long-run, the future of the Asian economy will be closely linked with development of LNG.

Lately, the global LNG industry has been undergoing very significant changes. These crucial ongoing steps can be described as the "LNG Revolution." Historically, the LNG business and trade has some specific characteristics ("LNG paradigm"[3]). Due to the significant capital costs of LNG liquefaction plant, there must be very large deposits of easily extractable natural gas to supply feedstock. Moreover much of the project has to be generally contracted in long-term sales agreements (10-20 years or more) before projects can receive funding. "Take-or-pay" clauses with some downwards quantity tolerance and destination limitations are also peculiar to the LNG contacts. Nonetheless, as the spot market is developing, the fundamentals of the LNG industry are also gradually changing.

In more recent time, a number of factors have encouraged the interest in LNG. The favorable economics of gas-fired combined with the cycle electricity generation has made gas the fuel of choice for power generation. There also has been a substantial reduction in LNG production costs making this previously uneconomic trade attractive. Due to improvements in engineering

and construction, the cost of LNG terminals and tankers has dropped by as much as 30%.[4] Moreover, both Europe and the USA have become interested in finding additional ways other than by the traditional pipeline supply. But the real force behind the revolution in LNG has been the worldwide restructuring of the gas and electricity industries. The clash between the highly-structured, traditional approach to long-term LNG contracting and the theoretical model of international gas and electricity as a workably competitive commodity markets is the focus of the LNG revolution.

The changes, taking place in the LNG industry, are favorable for energy-thirsty NEA. Buyers in Asia have been making efforts to remove destination-restriction clauses, which were ruled illegally by the EU. In addition, Japanese buyers have made recent deals without such clauses.

New gas-based technologies including fuel cell, methanol, dimethylether (DME), gas to liquids (GTL) as a diesel substitute, might play an important role as new applications. Liquid fuels generally called GTL, are environmentally clean, free from sulfur and aromatics fuels, like LNG. Moreover, since a GTL based project on a relatively small-sized gas field producing 1-3 Tcf of natural gas is economically viable. It is believed to be one of the best measures for promoting a move to obtain alternative liquid fuel and by making use of most of the untapped natural gas resources. Therefore a number of GTL projects have been either placed on-stream or announced one after the other at many locations around the world since the latter half of the 1990s.

GTL is a new natural gas processing technology. Natural gas is first converted into a synthesis gas (mixture of hydrogen and carbon monoxide) then it is transformed to middle distillate such as kerosene and diesel oil, or liquid products such as DME and ethanol. GTL also may be narrowly defined as technology to manufacture petrochemical products (such as kerosene and diesel oil) by utilizing the Fischer-Tropsch process. Growing interest is centering on the technology for using it as a measures of transporting natural gas and/or utilizing it as a non-petroleum alternative fuel.

With regard to NEA, it is especially important, that some of the countries are promptly introduced to the environmentally friendly LNG. Another point is that, due to Sakhalin-II project, in a short-run perspective NEA is to become a region where LNG is being produced and consumed which seems to be important when considering regional energy security. The LNG project in Sakhalin had been questioned for a relatively long time. The reason was that the marketing of LNG in NEA had been questioned. Enormous investment was required for the project development and should have been guaranteed by signed contracts ensuring the selling of LNG. Incidentally, in 2003, project-saving contracts with Japanese buyers were signed, which opened up new opportunities to further regional energy cooperation.

Finance

According to some estimates, the required net foreign capital inflow to NEA for energy infrastructure development is about $7.5 bln a year for several decades to come. The estimated amount is beyond the region's ability. The international financial institutions, namely IBRD, ADB and EBRD; private direct investment in commercially viable infrastructure projects; and bilateral, government-to-government assistance under the most optimistic assumptions can provide 1/3 of the needed sums. The region's financing shortfall would amount to $5.0 bln a year, calculated from the required net foreign inflows of $7.5 bln and possible supply through the existing tools at $2.5 bln.[5]

To make even a start in filling the region's projected $5.0 bln infrastructure financing gap, will require a new institutional arrangement created for the purpose of helping to meet more comprehensively Northeast Asia's future capital transfer and infrastructure investment requirements. A new, sub-regional development bank, the so-called Northeast Asian Development Bank (NEADB)[6], could be the most viable and effective institutional option for helping to cover the financial gap for projected infrastructure in NEA. It should be noted, that while this financing gap is one of the toughest challenges in advancing the regional cooperative scheme, it could also offer a great opportunity to the participants in the capital markets around the world.

Technical problems of energy cooperation

From a technical perspective, pipeline construction may face various challenges of natural-climatic conditions in the territories through which it is proposed pass. Physical technical problems of providing higher reliability and safety of oil and gas transporting structures are of topical importance.[7]

As the major part of the pipeline system planned for construction in NEA is to function in severe climatic conditions of East Siberia and Far East (within the permafrost area), first; design and construction of the structures arranged for operation in the regions with extreme climate conditions is a complicated scientific and technical problem that cannot be solved without particular consideration of actual experience of pipeline maintenance.

Second, extreme conditions require new technical standards for materials and technologies implemented for pipe production and pipeline construction.

Third, to increase pipeline reliability, a new system of criteria for strength, lifetime, durability and safety, as well as standards and rules for design, production and maintenance are needed.

The projected NEA PNG trunk-line is not only to pass through permafrost areas, but also deserts and submarine areas. Consequently, the technology to solve the problem of long-age operation of large diameter and long distance pipeline placed under the sea, lake and desert area

should be jointly developed.

Success of the challenge to overcome these technical and engineering problems will be achieved only through a joint approach. The main technical issues for joint mastering are: analysis of worldwide oil and gas pipeline standards; research on the operational problem in Arctic region; scrutiny of pipeline management, design and operation in submarine and desert areas.

Since NEA has never experienced a multilateral regional cooperation regime, it is essential to implement closer technological cooperation regarding agreements on standardization of pipeline design, construction and operation; environmental and safety standards; cooperation for equipment and material supply and arrangements on technician and laborers.

Environment

The environmental benefit is one of the major rewards that can result from NEA energy cooperation. However, when any specific cross-border energy project is to be launched, sharing of benefits or burdens among the countries involved regarding environmental impacts could be a major issue. In other words, from the initial stages, focus on overall benefits will be kept in mind. On the other hand, when it comes to the actual designing and financial structuring, the sharing of costs and revenues will be the most crucial issue that has to be resolved not only by the countries involved but also by participating financial institutions. The fact that the current effort for the NEA energy cooperation is the first attempt at a multilateral tie in the region implies that it may take time and efforts to resolve the pricing and cost-revenue sharing issues. In particular, the differing economic systems and energy pricing practices in the countries may be a high hurdle to jump politically, and more so as many countries are involved.

NEA is expected to become increasingly sensitive to energy-environmental issues in the future because of its rapid growth in energy demand and the significance of coal usage in this energy mix.

Managing the risk of trade discrimination from environmental issues will involve capacity building with long lead times to achieve more efficient use of energy, and the application of technology to capture and sequester emissions. The demand for energy and emission management technology services, including renewable energy and clean technologies will increase. The response to this increase in demand will assist in dealing with the pressures to moderate emission impacts and protect both international competitiveness and maintain existing markets.

There is nonetheless significant ambiguity within the Kyoto Protocol (KP) mechanism that could limit the capacity of countries to be pro-active in their emissions management. For

instance, emission trading under the KP is not developed and the market for carbon credits is expected to be inefficient until liquidity is deepened. The reliance on Joint Implementation and Clean Development Mechanisms will provide added stimulus to creating new technology and represents a useful source of supply for carbon credits that will potentially ease adjustment costs throughout the region.

The uncertainty of the KP is a challenge for policy makers and businesses in the economies that are both net importers and exporters of energy. The complexity of the task in assessing the impact of the KP on trade and investment patterns through the region is further exacerbated as some economies are signatories to the protocol while others are not.

From a broader regional perspective, further analysis and dialogue are needed to assess the capability of individual economies to meet their commitments in KP. The regional dialogue on energy security will need to expand in terms of its participation and its agenda. There is an added value in the focus on the important issues relating to the environment and the implications of international agreements for country's competitiveness that drive patterns of trade and investment. In light of the importance of these issues, a forum that can exchange information, examine the different perspectives needed, and rigorously assess national interest decisions for both the current and long term, would be valuable.

2. Forms of international cooperation in NEA energy sector

International cooperation can be carried out through the implementation of international projects. The definition of international energy project as "infrastructure project concerned with the production, transmission, distribution, and/or consumption of energy undertaken as an international joint effort by economic agents of different nationalities, which has a significant impact on the welfare of two or more states"[8] seems to be incomplete. In addition to the outlined fields, implementation of the international energy project requires: - clarification of the participants' responsibilities and obligations in the aspects of investment and organizing of the investment process; - development of principles of trade in energy resources between the countries involved in the project; - elaboration of the project's security system; - establishment of system for dispute settlement; and - introduction of mechanism for environmental preservation.

International energy projects have some characteristics that make them different from joint initiatives in other sectors. Among the key of those specific features are:

- the *physical location* of the principal component of the international energy project is of supreme importance. Clearly, assessment of the project's element/ construction/ part worth and concluding whether this is of pivotal significance as opposed to being not is a rather difficult

task. This stage of decision-making process rests on the concept of country risk. The entire environment in the country of the key component location should be scrutinized. Given the complexity of the political and geo-political issues of energy security in NEA, the factor of "physical location" must not be ignored;

- the "joint-ness" involved with accomplishment of the international energy project creates challenges of *juridical* bearing, in particular for ownership rights and chiefly for rights to explore and exploit energy resources, that carry the status as strategic national resources. In this connection, NEA, made up of countries with different economic systems (ranging from market to socialist economies), exemplifies the case even in worse ways. Though the government's role's are rather sizable in the national economies as typified by the high ratio of state-owned units particular to NEA countries, the prudence of market developed or market oriented countries towards "closed" economies does shackle;

- as an *enormous investment* is required for conducting geological surveys, development of the fields and international transportation of the extracted resources, the question of the investment climate in the countries embraced by project, organization of the investment process and investment related to dispute settlement are of crucial importance;

- the *specifics of the domestic energy complexes* might fuel or vice versa hold back progress in the international energy cooperation. That is to say, Japan has no developed national pipelines, so, being in dire need for diversification of its energy resources, the country cannot immediately adjust to natural gas. Extensive investment is needed in the domestic gas transporting infrastructure. Another example is China. There is a huge disparity in the volume of energy demand and supply in the north-west and south-east areas. The former lack infrastructure that impedes not only taking potentially available Russian gas and oil, but also hinders shipping of domestic resources from the less developed north-west to the more economically advanced and energy thirsty coastline regions. Another infrastructure's bottleneck is the railway gauges that are typical to the NEA, which developed its infrastructure during different times and under different economic conditions. Nowadays, some NEA countries because of the remaining low level of economic development cannot accomplish modernization or construction of modern railway networks. Consequently, shipments of energy resources cannot take place by land transportation nor by costly new pipelines;

- the differing *value sets* of the nations bound by the international project is one of the most complicated to define and account for the features which affects all stages of the project's implementation.

Implementation of the international energy project at some stage is always shaped into the forms of investment and/or trade cooperation. Therefore, openness to trade and investment is an

important element in enabling regional energy market to evolve based on global best practice.

At present, world practice of investment cooperation in energy grasps some variety of forms, including concession, its modern variation production sharing agreement (PSA), joint venture (JV) and service contracts risk-involved and risk-free (SA) (refer to table 1.).

Table 1. Risk and reward under different forms of investment

Contract	Foreign contractor	Government
Concession	all risks/ all rewards	reward in function of production and price
PSA	exploration risks/ share in reward	share in reward
JV	share in risk/ share in reward	share in risk/ share in reward
SA	all risks/ no risks	no risks/ all risks

From the legal point of view, the concession contracts, product sharing agreements and other contracts in the area of the development of hydrocarbon fields grant the subsurface user, along with the permissive system, greater freedom when investing the capital and managing the project.

Concession and PSA schemes are more attractive in the government's eyes due to making available the opportunity to receive steady reward for the granted investor rights to exploit definite piece of subsoil without sharing risks of the project with investor.

The concession contract may provide the parties with the highest guarantees for due execution of the obligations assumed by the counteragent, with applicable remedies against unsubstantiated breaches of their rights under the contract, and reimbursement of damages resulting from undue execution or an absolute failure to execute the contractual obligations.

The basic distinctive features of the traditional concession contract include:

1. grant of a permit by the host party to the foreign company for resource production in the territory, transferred into concession;

2. an extended term of the concession (previously, up to 99 years, recently 20-40 years);

3. absence of a provision to return to state ownership unused and non-promising mineral wealth segments before the maturity of the concessions;

4. full and sole control by the concessionaire of all aspects of economic activity within the framework of the concession;

5. practical estrangement of the host state from participation in management of the concession;

6. direct financing by the foreign company of all exploration works, development of deposit etc. within the framework of the concession, and

7. insignificant financial deductions from the concessionaire's earnings in favor of the host state, which were confined, as a rule, to a symbolic fee for the right to develop mineral wealth (royalty), usually, in the form of a fixed production charge.

Introduction of PSA is usually dictated by the government's eagerness to develop subsoil resources, speed up economic dynamics in other sectors begging for government attention, overcoming shortage of funding required for exploration and development of mineral resources, and decreasing the burden of financial support for the JV involved in energy resources exploitation. This policy is designed to transfer exploration risks and funding of exploration and development efforts on new fields to interested oil companies.

There is though been some ongoing modifications of the PSA system, however in essence it means that the produced product is divided into two parts: the first one is a compensatory product used to cover mining and primary processing costs; and the second is the profit portion, which remains after deducting the costs of production royalty (mining tax). The state and a subsurface user share the profit according to a ratio specified in the agreement and subject to negotiations. As for the profit tax, it is levied on the share of the profit transferred to the investor (subsurface user) at a rate established by law. Under the ideal model, only royalty and profit tax but no other taxes such as export duties, import duties on mining and other equipment imported for the implementation of the agreement, are to be collected. The investor is not a value added tax (VAT) payer but rather its bearer. In Russia, for example, initially VAT may be deducted, but it must be reimbursed later on.

The main idea of the scheme is that the investor/contractor/surface user undertakes the initial exploration risks and recovers costs if and when the product is discovered and extracted. Under PSA, the contractor has the right to only that fraction of the resource allocated under the cost product (resource to recoup production cost) and equity resource (product to guarantee return on investment). The investor can also dispose of the tax product (product to defray tax and royalty obligations) subject to authority approval. The balance of the product, if any (after cost, equity, and tax), is shared between the parties (profit product).

PSA and JV are the most accepted forms of investment in the world energy business. Interestingly, while attracting foreign capital to the energy sector NEA countries have been demonstrating varied priorities.

That is to say, until recently Russia had been inclined to develop large scale costly energy projects on PSA basis. However to be precise, if judging numerically, it appears doubtless, that JV exceeds all other cases of foreign capital operating in the energy sector. At the same time, it is important to note, that the future of PSA in Russia is not certain. Hot debates concerning PSA' merits and demerits for the Russian economy have been taking place during the last

several years. Recently, it was decided to amend the legislation on PSA that from now on basically means making the conclusion that new PSA are unfeasible. It was though decided that under the protection of the "grandfather" clause" the two largest PSA projects would run on terms of 1994 (regarding Sakhalin-2) and 1999 (concerning Sakhalin-1) laws. At the same time, perspectives for over 20 other projects included in a list pending approval for development on the PSA basis remain gloomy.

As had been noted, the Russian energy industry is in dire need of capital injection. A number of questions though of vital importance surround the sector, namely, exhaustion of fixed capital, bottlenecks of energy transmission infrastructure, tempo of exploration and geological surveys works which it lags and are far behind exploitation pace, etc. Given the energy sector's significance in the Russian economy, it is difficult to understand what was the decisive argument to alter the laws on subsoil exploitation which finally had been adjusted in a way that allowed the domestic energy sector to count on foreign capital and latter to feel a little more confident about Russian environment.

As for conditions for JV's activity in the Russian fuel-power complex, some restrictive norms remain present. In particular, there is a permissive system envisaging the approval of investor's application to establish any business related to the energy sector through the Ministry of Economic Development and Trade (MEDT).

On the whole, the number of foreign companies operating in the national energy sector is not very big, however their investment in running projects, in particular in Sakhalin does play a very significant role. That is to say, the energy sector accumulate over 40% of the foreign capital operating in the Russian economy while Sakhalin holds over 50% of the foreign investment inflow. Among the most prominent investors are the Japanese Mitsui, Mitsubishi, SODECO, American Exxon-Mobil and Chevron-Texaco, British/ Dutch BP, etc.

Lately, the Russian energy sector gained a focal attention of the government. In order to increase the industry's efficiency and improve the national economy, it has been decided to bring about a revision of the taxation system and amend the licensing regime. The basis of these alterations is the belief that in comparison with other sectors, the energy industry provides higher profits, and also because business is not concerned about the industry's perspectives and does not apply proper investment to extend the production base, improve technology, etc.

Among the major government's claims is the reluctance of energy businesses to carefully abide by the financial and tax discipline. The world wide notorious example of governmental concern is the Yukos' case. In addition, foreign companies, namely consortium of Exxon-Mobil Corp., Chevron-Texaco Corp. and Russian state-owned oil major OAO Rosneft operating in Sakhalin-3 project have been facing the worsening circumstances for the project implementation.

The essence of the latter matter is that in 1993 a consortium won a tender for the license allowing development of the Sakhalin-3 offshore fields. However at that time the license was not issued due to the lack of a legal framework for PSA. In January 2004, the Russian government has announced its decision to organize a new tender, which means that consortium either has to participate in the competition again or just lose the rights to develop the project.[9]

At the same time, Russian energy companies (including state-owned ones) having formed significant alliances with the Russian banks, emerged stronger financially and even capable of developing oil and gas projects overseas. Their interests are stretching from South Asia, the Middle East, former soviet republics to the USA market covering all kinds of energy businesses from exploration works to gasoline stations business.

More recently, the Russian oil industry, especially its upstream segment has entered M&A deals of high value. LukOil, Yukos, Sibneft and TNK were the most active players during 1998-2003 period. The year 2003 was marked with accomplished merges of $6.75 bln between BP and the Russian oil company TNK. At the same time, transactions of this size in the gas industry appear hampered since the sector remains heavily monopolized by Gazprom running nearly 80% of the Russian gas business.

Russian companies acquired numerous upstream and downstream assets in the former Soviet Union (FSU) and Eastern Europe. Yukos has successfully acquired Mazeikiu Refinery in Lithuania, while Lukoil negotiated a purchase of Rafineria Gdanska in Poland. The refining and transportation facilities in Eastern European countries attract Russian majors among other things because of their proximity to the West European market. The European Union newcomers like the Baltic States, Poland, and Romania are the ones that are currently being eyed by Russian oil strategists. Moreover port facilities in such countries like Croatia represent a "door" to the USA market. There are also a number of projects in Central Asia and Caspian region (Kazakhstan, Georgia, Azerbaijan), in the Middle East (Saudi Arabia) and Southeast Asia (in particular, Vietnam).

Obviously, there is a difference in the Russian energy companies' motivation for overseas activity. Since they are not export-oriented, as Japanese, Korean, Chinese businesses might be characterized, expansion of the Russian energy companies' foreign activity links with their aims to pave the way for better access to the respective domestic markets, decrease operational costs by means of closer allocation to the centers of demand, upgrade technology, diversify economic activity, alleviate business risks and avoid excessive concentration in limited number of segments, etc.

Another important conclusion is that interest of the Russian energy business is not really stretching toward NEA. As had been shown before, there is no lack of energy demand in the

region moreover there is no shortage of the resources in Russia. However a combination of factors may provide the lead. First, Russian energy companies are not that financially secure enough (so the government's upcoming reforms in the sector are somewhat puzzling) to develop new fields and create costly energy infrastructure connecting the eastern Russian regions with Asian states. Second, given the strategic meaning of energy to the national security, the government closely keeps an eye on any international initiatives in this field. As the Yukos' project with CNPC proves, the case in point, is that the government's and business' interests may not always be concert. On the Russian side, these are the two decisive arguments, but also that the business counterparts' circumstances should be better scrutinized. As it seems, the most damaging factors to the Russian energy companies' activity in NEA are the absence of due organizational and legal framework, lack of mutual trust and hard access to the oil and gas industries in NEA states.

China's practice of foreign investment treatment is also rather complicated. JV, are set with restrictions on the share for foreign participation, and are in the form of foreign capital presence in China's energy sector. The procedure of foreign investment regulation stipulates that cases of foreign investment in the energy sector exceeding $30 mln need to have permits issued by the State Planning Commission. In addition, the project must be approved by the Ministry of Land and Mineral Resources, which grants mining rights and land using rights. If project includes technical cooperation, permission of the State Economic and Trade Commission is also required. After all these requirements are fulfilled, the project must be given the final go-ahead by the Ministry of Foreign Trade and Economic Cooperation and Ministry of Foreign Affairs.

In addition, Chinese law contains some restrictive norms regulating capital holding rate and managing right of the foreign companies participating in crude oil exploration and development. Until recent times, foreign capital access to the oil-refining and oil-selling industries had been significantly limited. However since joining the WTO, China is proceeding with gradual liberalization in the sectors.[10]

On the other hand, China is actively participating in overseas projects. The primary reason for the increasing motivation is that oil reserves within the national territory including Daqing, Shengli, and Liaohe fields have all become exhausted to varying degrees. The 2002 China Petroleum and Gas Estimate Report states, that the nation's oil resource exceeds 202.1 mln t and natural gas resource totals 38 bln cm. However, land-based proven available oil constitutes only 28%, and proven available gas is only 6%, both are well below the world proven average. The western part of China is especially resource poor.

Given the rather high and growing dependency on the Middle East, China's three major oil enterprises have been actively seeking business opportunities in other areas, such as Australia,

Southeast Asia, and North Africa. This is in accordance with the government's global oil purchasing policy embodied in the Tenth Five Year Plan. At present, China has adopted the business model called "oil sharing," i.e., through China's participation in the stock sharing or direct investment in the construction of foreign oil fields and facilities. By this China each year gets a certain share of the oil output from the oil projects concerned. The advantage of this model is that what China gets is oil, thus obviates the impact of oil price fluctuation.

According to the International Operations at the China Petroleum and Gas Group, there have been 28 survey and oil drilling projects overseas that have been approved by the Central Government. All these projects are implemented with foreign partners. These projects encompass 12 countries on four continents. They have formed the following strategic oil areas: the Middle East and North Africa strategic area centered on the Sino-Sudanese joint oil project; the Central Asia and Russia strategic area centered on China's oil joint project with Kazakhstan; and the South American strategic area centered on the joint project with Venezuela. The range of business at these projects extends from oil, to gas survey, and drilling, to production and marketing, to refinery, to chemical plants and the marketing and sale of these oil-based chemical products. In 2002, China Ocean Petroleum Corp. purchased three oil and gas fields from Australia and Indonesia for $1.2 billion. Recently, China Petroleum and Chemical Corp., has also indicated that it has been purchasing foreign oil field assets.

However, China's overseas endeavors have not been all that smooth. In December 2002, China Petroleum and Gas Group were forced to abandon the opportunity to participate in the bidding at the auction for owning the stock share of the eighth largest Russian oil company, the Slavic Inc. Also, China Petroleum and Gas Group had spent over 10 years repeatedly surveying and studying the feasibility of the oil pipeline stretching from Russia's Angarsk to China's Daqing. But due to Japan's demonstrated interest in a new proposal for an Angarsk - Nakhodka pipeline, the Angarsk - Daqing route as of this date remains uncertain.

Through the 1990s, Mongolia brought about national legislation on foreign capital. As a result, a number of documents concerning foreign investment in the energy sector were developed. More specifically, the Law on the Foreign Investment, Agreements for Prohibiting Double Taxation with 19 countries and the Agreements for Protecting and Promotion of Mutual Investment with 30 countries compounded the framework for foreign investment.

The new Minerals Law of Mongolia, passed in 1997, has greatly improved the legal environment for investors by clearly defining legal rules, simplifying the licensing process and reducing royalty and exploration fees. The Petroleum Law of Mongolia, adopted in 1991, has also provided a favorable legal environment for investors to operate in this field.

Considering the energy sector as a pillar of the national economy, Mongolia offers appealing

conditions for foreign investors. In particular, stable political and regulating terms, one of the most favorable taxation stipulating exemption from corporate income tax, customs tax, excise tax, value added tax, mutually beneficial fiscal terms (PSA), stability of tax environment for 10-15 years (according to the Amendments of the Foreign Investment Law of Mongolia, enacted in 2002) all are tools designed with the aim to develop the national energy sector by making use of foreign capital.

Mongolia has divided its offerings into 22 oil fields. In order to attract investors into these areas international biddings have been announced twice in the early 1990s. Since then, the Petroleum Authority of Mongolia has made a PSA with investors from Canada, the USA, Australia and China concerning operations in 12 oil fields. As a result, 6 fields are currently being explored and exploited.[11]

Thus, as resources possessors of NEA lack national capital to develop and maintain their energy sector, they have been showing their concern about the environment for foreign capital. Since NEA countries are in different circumstances and pursue varied aims, as the described examples point to, they cannot be compared in a straightforward manner. It can be noted, however, that while developing its domestic energy industry Russia seems to have passed the stage of holding much hope on the might of foreign capital and set about setting a policy of national regime toward foreign investment. Capturing the lion's share of migrating international capital, China pursues a policy of selective access for foreigners to its energy sector. As for Mongolia's practice, it is counter to that of the above mentioned countries: that is foreign investment are most welcomed and are regarded favorably. At the early stage of market reforms for this transitive economy with a poor investment rank, this treatment may be acknowledged as a normal phase in the process of its national investment policy evolution.

With regard to another known form of international cooperation in the energy sector – trade, as a regional practice is just being built.

Historically, energy companies, in particular American oil companies, before public talk of a global trade regime ever emerged had been setting about principles of trade in energy. Nowadays, while the WTO is the main engine behind international trade, some "parallel" charters developed on a regional basis, such as the European Union (EU), Free Trade Area of the Americas (FTAA), the North American Free Trade Agreement (NAFTA), the Association of Southeast Asian Nations (ASEAN), etc. and on an industry-by-industry basis, such as the Energy Charter Treaty (ECT) supplements the global system of trade regulation. Given the fact that some nations, in particular, Middle Eastern states and other members of OPEC consider energy as a "weapon of nationalism", OPEC and OAPEC mechanisms are also important to the issue of energy trade regulation.

One of the explicit aims of the ECT is to apply WTO trade rules to non-WTO member nations, excluding provisions that favor developing countries. These rules would apply to all aspects of the energy industry from the exploration and extraction of fossil fuels to the distribution of refined fuels, thus eliminating the possibility of democratic control over resources.

One of the most devastating impacts of the WTO-led regime is the imposition of rules through the General Agreement on Trade in Services (GATS) and Trade Related Investment Measures (TRIMS). These rules would forbid countries from limiting foreign ownership, or favoring local over foreign companies, and would forbid countries from barring trade activity based on health, safety, environmental or human rights concerns.

As had been displayed, NEA countries (excluding the DPRK) have set about to put energy reforms in place. Enacted in different forms and with varying swiftness, they all are aimed at bringing about market principles into the domestic energy sector. It is by no means just an adherence to the general perception of the merits of being deeply incorporated with the world economy, but this is an actual comprehension of the fact that opening up the domestic energy market is the only way to ensure the countries economic performance.

With regard to investment and trade cooperation in oil and gas sector, there are some vectors of emerging links in NEA. The attractiveness of the energy sector to foreign investors and owners of technology could be further developed particularly where regional trade cooperation is cognizant of removing institutional arrangements that exacerbate investment risk in the industry. These include, for example, trade barriers and regulatory price practices that discriminate between domestic and foreign counteragents. These barriers prevent the industry from achieving efficiency and impede the development of energy supplies from geographically proximate sources.

The key to genuine international cooperation in energy is the application of mechanism leading to efficient choices about production and utilization of energy products, as well as for the development of new technologies.

The NEA has a praiseworthy track record of being adept in responding to the dynamic nature of the challenges associated with energy security. However, the period ahead is expected to be difficult because of the conjunction of circumstances with the economies that proceeded with the deregulation of their energy markets, at the same time as the onset of new environmental regulations through the Kyoto Protocol are taking root. Without doubt, in the years to come, the focus of great concern in NEA will be that of the progress in "marketization" of the energy sector and how it should be in concert with the upholding of increasing living standards for the people of the region.

The final issue therefore is how this focus might be developed and maintained, so that the processes of reform within each economy are supported. An open approach to trade and

investment policy and active participation in group arrangements are the key to an efficient regional energy dialogue. Some of the principal points of this dialogue include the energy demand and supply outlooks in the region, the non-discriminatory trading regimes for energy, the design of contracting arrangements that are attractive to both buyers and sellers involved in long-term projects, the evolvement of management of risk in the energy sector, the efficient response from a regional perspective to increasing environmental concerns (particularly those embodied in the Kyoto Protocol), the design of tax regimes (particularly resource rent taxes) and their impact on the exploitation of deposits, and the scope to share information on priorities in research related to energy production and consumption, etc.

3. Elements of strategy for multinational energy cooperation in NEA

The lack of multilateral cooperation in NEA can be explained by historical animosities and contemporary differences in political and economic systems, national wealth, size of populations and territory, military power, language and culture. NEA states pursue varied aims in their energy strategies, have differing motivation for energy cooperation, and unequal opportunities to carry out costs of enlarging energy interdependence and expenses linked with this cooperation (refer to table 2.).

The NEA is unique in that sense of having a lack of cooperative relationship. The last several years, however, have witnessed the intensification of intra-regional economic relations, and an ongoing establishment of partial systems of regional cooperation.

Cooperation in the energy sphere may become the impetus for a regional economic system development. At the time being, however, Russia is not among the significant oil and gas suppliers to NEA, which does not facilitate sustainable intra-regional energy cooperation. Only during the last couple of years important shifts have taken place in NEA and in Russia itself, which might have positive outcomes for intensification of energy cooperation in NEA.

At any rate, learning about other regions' experiences seems to be helpful in building an effective framework for regional energy cooperation in NEA. In this sense, Europe with it's over half-century history of cooperation on energy issues appears as the best model to emulate.

In December 1991, 51 states agreed on the European Energy Charter, the objectives of which are to facilitate energy co-operation, to improve the security of energy supplies, to maximize the efficiency of production, conversion, transport, distribution and use of energy, as well as technology transfer, and to assist the countries from central and eastern Europe and from the Commonwealth of Independent States (CIS) in their transition to a market economy and to stimulate their economic recovery. In 1994 after negotiations, the European Energy Charter Treaty

(Treaty) was adopted.[12] Russia and Japan are involved in the Treaty as members and China as observer.

Table 2. NEA states' interests, motivation and possibilities for energy cooperation

	Priorities of national energy policy	Motivation for enlarging energy cooperation	Possibilities for cooperation	Limitations for cooperation
Japan	3 E: energy, environment, economy; Implementation of Kyoto Protocol with increasing demand for energy; Security of energy supply; Liberalization of energy sector.	Decrease reliance on Middle Eastern energy supply; Spearheading of authentic economic integration in the region; Encouraging activities of national companies	Immense private and state capital; Advanced technology	Undeveloped domestic oil and gas infrastructure; Territorial disputes
China	Supply security of imported energy resources; Development of environmental friendly technology; Improvement of energy efficiency; Transportation of energy resources from the producing west to the consuming east	Ensure import of energy resources in required steady growing quantities; Avoid aggravation of reliance on unsure energy markets; Diversification of energy import; Leadership in economic cooperation in the region; Encouraging progress in underdeveloped northern and eastern provinces;	State capital Enormous in number and cost competitive work force	Excessive regulation; Sparsely developed transporting infrastructure of northern and eastern provinces; Territorial disputes
Korea	Security of energy supply; Privatization and deregulation of energy industries; Connection of the domestic energy supply network with the international; Reform of energy demand management;	Decrease high dependence on Middle Eastern energy supply; Alleviation of vulnerability stretching from the North; Genuine participation in regional economic cooperation	State capital; Technology	North-South tensions; Territorial disputes
Russia	Liberalization and privatization of energy industry; Improvement of management for efficient development of energy resources; Coordination of energy policy between federal and regional government; R&D in energy efficiency and environmental protection; Diversification of energy export	Lessening dependence on the European energy market; Development of energy transporting infrastructure; Improving energy resources supply of Siberia and Far East; Speeding up economy progress in Siberian and Far Eastern territories	State and private capital; Technology; Adequate in number and adequately skilled work force	Poorly developed fields in East Siberia and Far East; Territorial disputes

Mongolia	Liberalization and privatization of energy industries; Incorporation of domestic energy supply network with international system; Upgrade of domestic energy standards to global level	Fuelling economic growth; Incorporation into the international energy and economic community;	Advantageous location; Competitive work force costs	Relatively remote from the main proposed routes of NEA energy infrastructure; Underdeveloped infrastructure
DPRK	Self sufficiency by means of maximum development and utilization of coal, hydropower and renewable energy; Introduction of foreign capital and technology for rehabilitation of energy infrastructure	Energy cooperation is by no means to alter model of the economic system;	Location of geostrategic importance; Very competitive work force costs	North-South tensions; Barely developed infrastructure

The main energy issues addressed in the Treaty are the following: transit, investment protection, trade and energy efficiency, related environmental aspects, and dispute settlement. The major transit obligation is facilitating transit based on the principle of freedom of transit without distinction as to the origin, destination or ownership of the energy and without discrimination as to pricing on the basis of such distinctions.[13]

Under the Treaty, contracting parties are obliged to encourage cooperation in the modernizing, interconnection, development and operation of energy transport facilities, including the mitigation of the effects of interruption to the supply of energy. The Treaty stipulates that energy in transit shall be treated no less favorably than that country's transportation provisions treat energy produced domestically and exported or energy imported. In addition, under the WTO provisions, the most convenient route for international transit is to be used.

Energy imported from any other contracting parties may not be subject to internal taxes or other internal charges in excess of those applied to similar domestic energy carriers. Such energy must be treated like any energy carriers of national origin (the national treatment principle). The transportation charge may differ from the domestic transportation charge only if that pricing decision is based on the economics of transportation and not on the nationality of the energy. Internal quantitative regulations requiring part of the energy supply to be from domestic sources must be avoided. Also, no quantitative regulation should allocate the proportion of energy among external sources of supply.

Based on the model of bilateral investment treaties, the Treaty grants a number of fundamental rights to foreign investors with regard to their investment in the host country. The Treaty also includes an international dispute resolution mechanism.

The Treaty not only requires the minimizing, in an economically efficient manner, of harmful

environmental impacts resulting from all operations within the energy cycle in its area, but it also requires market-oriented price formation to be promoted and environmental costs to be reflected. The Energy Charter Protocol on Energy Efficiency and Related Environmental Aspects (PEEREA) was negotiated, opened for signature and entered into force at the same time as the Treaty, on 16 April 1998. PEEREA provides a mechanism for international cooperation and the exchange of experience and ideas between less developed countries and countries with experience in this area.

In line with the general strategy aimed at integration within ASEAN, some NEA states are also trying to set up a framework for energy cooperation. Thus, during the International Energy Forum held in Osaka in September 2002 the former Japanese Minister of METI, Mr. Hiranuma proposed Energy Cooperation among Japan, China, Korea, and ASEAN (now referred to as the "Hiranuma Initiative"). The goal envisaged attaining regional cooperation on such fields as creation of an emergency network, initiative for the development of oil stockpiling' and initiative for the improvement of natural gas development.

ASEAN has created various systems for regional cooperation in response to changing demands. Using English as a common medium of communication, the private sector, including think tanks and the media, plays a significant role in these systems. In particular, the establishment of a media network has enabled the expansion and deepening of regional cooperation. It must be recognized that the structure of NEA is completely different to the structure of ASEAN. However, if, like ASEAN, NEA takes the role of the private sector seriously and establishes a media network, new forms of regional cooperation will emerge.

To be comprehensive, the dialogue for regional energy cooperation should be built on multilayered basis comprising government-to-government, government-to-business and business-to-business types of cooperation.

Obviously, in NEA establishment of multilayered model for the intraregional cooperation, development of a set of obligations and rules and achievement of agreement on all of that will take time. It is not meant that a framework for energy cooperation in NEA should absolutely not be adopted. Existing cooperative structures relevant to the region include such inter-governmental frameworks as International Energy Agency (IEA), Asia Pacific Economic Forum (APEC) and the United Nations. The IEA, for example, organized workshops on emergency stocks and oil security for China during 2002 and 2003. Another forum is the UNDP Tumen River Area Development Program, which was established in 1991. Energy is emerging as new area on which the program will focus.

However, the efficiency of these international institutions activity is not high due to their broad scale and non-binding character. Another decisive point is that not all NEA nations are

members of the said organizations.

That is to say, from NEA only Japan and Korea are members of IEA, which is an autonomous agency, linked with the Organization for Economic Co-operation and Development (OECD). In its activity the IEA aims at the achievement of the following objectives: - to maintain and improve systems for coping with oil supply disruptions; - to promote rational energy policies in a global context through co-operative relations with non-member countries, industry and international organizations; - to operate a permanent information system on the international oil market; - to improve the world's energy supply and demand structure by developing alternative energy sources and increasing the efficiency of energy use; and - to assist in the integration of environmental and energy policies.

The NEA countries-members of APEC are four, namely China, Japan, Korea and Russia. APEC was established in 1989 to further enhance economic growth and prosperity for the region and to strengthen the Asia-Pacific community.

Basically, energy cooperation between APEC members is managed through the voluntary consensus-based regional forum or the Energy Working Group (EWG). Trade and investment liberalization and facilitation are high on the agenda of the working group. EWG developed a number of important documents and set up workshops for energy security, sustainable development, energy infrastructure development, energy education, energy exploration and development and nuclear energy.

In July 1996, following the Action Agenda adopted by the APEC Economic Leaders at the Osaka Meeting in November 1995, the Asia Pacific Energy Research Centre (APERC) was established as an affiliated body of the Institute of Energy Economics, Japan (IEEJ). The primary objective of APERC is to foster member economies' understanding of future energy supply and demand trends and associated energy policy implications. In addition, the Centre contributes to stronger energy research capabilities in the region and will establish a network among energy researchers and specialists in the APEC zone. APERC also maintains relationships with other regional and international energy research organizations.

APERC conducts joint energy research activities (including the development of a regional long-term energy outlook), carries out a know-how transfer programme for building research capacity, and maintains an energy data network in the APEC region. APERC is guided by the APEC Energy Working Group on Regional Energy Co-operation (EWG) through the Expert Group on Energy Data and Outlook (EGEDO). Its research activities are undertaken by researchers from APEC member economies under a system of research fellowships.

The ground work for regional energy cooperation in NEA has already been initiated. In June 2001, at the First International Conference for Energy Cooperation in NEA hosted by the Korea

Energy Economics Institute (KEEI), a working committee to promote multilateral energy cooperation at the government level in Northeast Asia was proposed by the Minister of Commerce, Industry and Energy (MOCIE) of South Korea.

As a first step toward the cooperation, an intergovernmental meeting was held in Khabarorvsk, Russia in October 2001 attended by 57 participants of government officials and experts from six countries of the region, namely, China, Japan, Mongolia, Russia, DPRK and Korea. At the meeting, a declaration, the Khabarovsk Communiqué, containing the objectives and basic principles of energy cooperation in Northeast Asia was adopted.

The agreed objectives for the energy cooperation are: - to increase the supply of energy from the Northeast Asian region; - to optimize the efficiency of supply and use of energy; and - to minimize the environmental impact of energy projects through improved energy mix.

The basic principles manifested in the Communiqué include: - the recognition of sovereign rights over energy resources; - development of free and fair trade; and -investment promotion and protection and environmental protection.

The Khabarovsk Communiqué also recommended institutional arrangements of a 'senior officials meeting' spanning the six countries, a secretariat, and 'working groups' on the following areas: energy planning, programming and restructuring; emerging energy technology and scientific cooperation; electric power interconnection; interstate transit of fossil fuels; and development of the Northeast Asian Energy Charter.

Subsequently, a preparatory meeting aimed at creating a working committee for the Northeast Asian energy cooperation was held in Seoul, Korea in November 2001, and attended by participants from the governments of Japan, Russia, and Korea and from organizations of United Nations Economic and Social Commission for Asia and the Pacific (UN ESCAP), ASEAN Centre for Energy (ACE), and KEEI. At the meeting, a consensus was reached to create the working committee for energy cooperation in Northeast Asia and the UN ESCAP is to serve as the interim secretariat.

Following all the developments, the would-be First Senior Officials Meeting was held on April 2003 in Vladivostok, Russia at the initiative of Korea. It was intended that this meeting would serve as the intergovernmental institutional vehicle that is critical in moving forward with the implementation of the much desired energy cooperation in Northeast Asia. This meeting was not titled official First Senior Officials Meeting mainly because China and Japan did not attend it. Despite the non-attendance of these countries, the participation of international organizations was enthusiastic including UN ESCAP, ADB, IEA, UNECE and APERC as well as some progress was achieved.

The Collaborative Framework on Energy Cooperation in Northeast Asia is in the agenda of a

regular meeting of senior officials.

In order to identify regional common concerns, interests and benefits of cooperation, and create meaningful measures specialized organization are needed. Through such type of organization, practical discussion on coordination of regulatory framework can be accomplished. The regional dialogue strategic oil stock piling, collusive emergency response program, sea-lane security and oil spill responses are immediate tasks. In this context, establishment of the Northeast Asia Energy Council[14] is considered as a means to concert NEA action at the governmental level.

Government and business type cooperation is understood as organized in mainly the areas where the governments are taking initiative and responsibility, but the business community is setting up activities on: carrying out joint researches and technology development; exchange of views and information; exploration and development of large scale projects requiring huge investment, and appliance of sophisticated equipment, advanced technologies and skilled work force; construction of energy transporting infrastructure; improvement of sea-lane security system; and cooperation on environmental issues, etc.

Currently, coordination of these activities is promoted through voluntary exchange supported by Northeast Asia Petroleum Forum backed by IEEJ (Institute of Energy Economics, Japan) along with other research institutes of NEA (most in coordination with Korean (Korea Energy Economics Institute, KEEI) and the Chinese (Energy Research Institute of China's State Planning Commission) and petroleum industries' representatives of the said countries.

Through the business-to-business level the followings activities and forms of cooperation are envisaged: joint oil purchase, which will bring about stronger bargaining power; joint fleet operation, which will release restrictions often imposed by shipping companies; optimization of petroleum supply system engaged trade on raw resources and products; joint projects in upstream, pipeline, consignment, processing, etc.; and exchange in fields of management, marketing, logistic, etc.

The outlined scheme of the international cooperation may be effective if it is based on the principles of mutual benefits and equal responsibility for observation of the set rules and accepted obligations.

As can seen, regional inter-government framework to support multilateral energy cooperation in NEA is being developed. Yet, it is wishful thinking to believe that the situation might change over night. As a necessary stage to prepare the ground for authentic international cooperation in NEA, the launch of the so-called energy dialogue seems to be sound step. Given the multiplicity of high-level meetings that have already taken place, the goal of such dialogue should be to analyze regional specifics and identify sources of misunderstanding.

At the current stage, a strategy aimed at regional energy cooperation should envisage coordination among specific projects, regional development needs and export opportunities. Furthermore, such a strategy should be realistically coordinated with existing and projected security trends and geopolitical developments. In this respect, the policy environment for cross-border energy projects would be as important as demand projections, market access and delivery technologies. To gain broad support and funding, new projects require firm policy commitments in combining the interests of local communities, regions and industries with those of central bureaucracies, as well as exporters and importers. These current requirements actualize the following recommendations targeted at the development of energy cooperation in NEA[15]: - increase reserves and revise projections for energy production and trade; - making regional oil trade the first priority and a confidence-building device; - planning of broader domestic use of gas, including large-scale GTL production; - development of technology and R&D links in the energy sector; - usage of the existing transportation corridors for new pipelines; - introduction of LNG markets; - making the investment attractiveness of cross-border projects the key priority; - setting promotion of competition and environmental safety as the prime targets; - consideration of regional financing mechanism for energy projects; and - appliance of the U.S., the EU, G8, the WTO and APEC mechanisms and expertise in promoting energy cooperation in NEA.

Without a doubt, the establishment of a regional energy framework in NEA might be affected by consequences of varied degree of resource endowments which make bilateral cooperative relationship especially attractive within some pairs of countries (for example, between Russia and Japan for resource trade and capital and technology). This kind of pair-wise preferences may be one of the difficult issues to resolve. However, existing multilateral projects (like tripartite Kovykta gas pipeline) might encourage countries to work out multilateral cooperative schemes. In NEA coexistence of complementarities and competitive relationships regarding energy resources is likely to be one of the most hampering factors to the idea of cooperative energy framework development. Of course, it is not a matter of idea, the actuality is that mutually beneficial and effective cooperation is possible only on the basis of regional multilayered cooperative scheme.

There is no doubt that the NEA energy cooperation has huge potential for mutual economic and environmental benefits, and will also play a positive role in alleviating political tensions in the region.

Conclusion

Cooperation in the energy sector can be developed in various different forms. One of the simplest is perhaps, on the one hand, trade exchange with products, being shipped by tankers or

railway. While on the other hand, of the most sophisticated schemes, envisages joint investment in exploration, exploitation and transportation, complimented by a trade exchange intermediated by pipelines.

Without doubt, the construction of pipelines ideally serves for the sake of effective development and leads to profound international cooperation. Joint development of energy resources and construction of oil and gas pipelines will permit land routes for energy supply to countries that have depended almost entirely on marine transport for imports. The interconnection of energy supply systems will further promote efficient energy trade and improve facility utilization.

Energy cooperation projects, moreover tends to promote market efficiency and accelerates liberalization processes in the region. In the course of implementing mutual projects, each country's energy system and policies are likely to meet international standards and improve energy market transparency. At present, as the majority of NEA countries, move away from their traditional energy security strategies, and consider privatization, competition, and the opening of national energy markets as an essential step toward guaranteed energy supply, development of intraregional cooperation seems to be in particular timely and beneficial.

Not only that, but regional energy cooperation creates a chain of economic effects that lead to both national and cross-border encouraging traits. The benefits of which, arise from freed capital and labor force migration, optimized trade exchange, eased formalities and ironed out disparities between nations' regulations and standards, etc. In a nutshell, all sides could gain advantages and benefits that may emerge from the economy of scale and international division of labor.

Of course, to make all these impetus work in actuality, organizational and legislative frameworks for multilateral cooperation should be established. Moreover, should it be done, it ought to be a positive step toward realization of the aspiration for regional integration.

In fact, energy can and should become the key cooperative catalyst for all countries to harmoniously coexist, as in the case of Europe. The formation of the European Coal and Steel Community in 1951 certainly eventually paved the way for the strong ties that exist within the EU today. Similarly in NEA, energy can, and should act to encourage, a positive cooperative spirit; that is, a catalyst for stronger regional ties, peaceful coexistence and prosperity for NEA.

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