

The Shanghai Cooperation Organization and energy cooperation: current status and development prospects

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Abstract - The article examines the state and prospects of energy cooperation within the Shanghai Cooperation Organization (SCO) in terms of SCO' goals and objectives, possible formats of cooperation and stages of its development.

Index Terms - regional energy markets, energy cooperation, inter-state energy links, energy strategy.

I. INTRODUCTION

Regional economic cooperation in general and between countries - participants of the SCO, in particular, is an important mechanism to improve national development strategies of these countries and realize the tremendous potential for countries' economic development in terms of deepening integration in Eurasia. Infrastructure development is a foundation that ensures the desire of member states for economic development through enhanced cooperation. The development of energy infrastructure is vital for overall economic growth and prosperity.

Regional cooperation and energy cooperation both allows to a group of countries jointly to solve problems of energy security, sustainable energy development, environmental protection and improvement of investment attractiveness of fuel and energy complex today, but, most importantly, for the future development.

II. PREREQUISITES OF ENERGY COOPERATION WITHIN THE SCO

Countries participating in the SCO are endowed with different status. The structure of states - members of the SCO includes Kazakhstan, Kyrgyzstan, China, Russia,

Tajikistan and Uzbekistan. India, Iran, Mongolia, Pakistan have the status of observer states. Finally, the Republic of Belarus and Sri Lanka have the status of dialogue partners. It is easy to see that the SCO as a regional organization is characterized by a favorable geopolitical position, as well as the presence large energy potential in some countries, on one hand and rapidly growing demand for energy resources - on the other. Thus, the development of regional cooperation in the SCO' energy sector is due to the need to:

- overcome the negative impact of uneven distribution of energy resources among the member countries by increasing the integration of energy markets;
- optimization of existing energy infrastructure among SCO countries and the optimum solutions for future infrastructure development. Cooperation in the energy sector, stimulated by the availability of new attractive energy markets in China, Pakistan, India and Iran for energy producing countries in the region, along with new opportunities and directions of oil and gas transportation, and also growing interest by investors from China, Russia and other countries to the energy sector of the SCO.

SCO member states express their interest in the successful development of medium-and long-term cooperation programs, which resulted in:

- countries with export energy potential (Russia, Kazakhstan, Uzbekistan and Iran also) would obtain additional opportunities for access to foreign markets;
- countries with sufficient hydropower resources, but no stocks of fuel (the Kyrgyz

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Republic and Tajikistan) will ensure the access to foreign markets for export of electricity from its hydro power plants to allow them to receive financial capacity to pay for imports of hydrocarbons to meet seasonal (winter) energy shortages;

- transit countries (such as Afghanistan and Mongolia) will receive substantial funds from the energy transit services, and Mongolia could become an alternative transit route for energy export from Russia to China, as well as itself will export coal, and possibly electricity to China;
- China will get access to oil and natural gas resources of Kazakhstan, as well as to natural gas from Uzbekistan and Turkmenistan (perhaps, in the future, this possibility acquire India and Pakistan);
- the Central Asian countries are interested in exporting electricity and natural gas to South Asia markets;
- Countries with energy potential, are interested in additional opportunities for access to financial resources of China.

III. CHALLENGES TO THE DEVELOPMENT OF ENERGY COOPERATION WITHIN THE SCO

We have to note that although the priority of cooperation between countries of post-Soviet space in the energy field is declared in most official documents for the development of national energy policy of the CIS members states which are the SCO members, their official documents and the relevant control figures are determined without taking into account similar plans and forecasts of states - partners. For example, according to calculations made by ERI RAS, the volumes of energy trade between Russia and the CIS countries, approved the official Energy Strategy of Russia until 2030 [1], in the case of realization of neighbors in the CIS program for energy conservation and alternative energy sources development, are overestimated in 1,5 - 1,8 times at the end of the forecasting period.

During last decade in CIS energy industries there were some negative trends which require a rethinking of approaches to cooperation and immediate actions in a number of common challenges, not only for current but also for long-term energy policy in the CIS - EurAsEC format, as well in the SCO format.

Towards these objectives, there are three critical aspects:

- the instability of government institutions in several SCO member states, observer countries and dialogue partners;
- contradictions between some countries, which affect all aspects of cooperation in the region of the SCO in any field;
- uneven economic development and limited economic potential of a number of countries participating in the SCO;
- lack of effective regional intergovernmental institutions dealing with energy issues and considering this area as a key aspect of political and economic development.

IV. FORMS OF COLLABORATION AND COOPERATION IN THE SCO ENERGY SECTOR

The Shanghai Cooperation Organization was created as a league of collective security. But gradually it began to dominate the issues of trade and economic cooperation.

Within the SCO framework, several conceptual initiatives were declared in order to formulate general principles of interaction among organizations in the economy and energy spheres. China acted with a broad initiative offered the format of a free trade zone and its subsequent development in this direction. China's proposal could not be accepted by other countries - SCO partners because of different levels of competitiveness of the economies of the former Soviet Union and China. Moreover, the countries - members of the SCO, Russia and Kazakhstan (including the Republic of Belarus) had establish a Customs Union, with one of most important goal - to

counter the expansion of cheap goods from China to CIS markets.

As an attempt to give further impetus to cooperation in the energy sector in the framework of the SCO was launched several years ago as a proposal to establish a SCO Energy Club.

This idea was launched during the International Conference "Central Asian Energy Market: Trends and Prospects." in late 2005, In June 2006 the Council of Heads of governments of SCO member states in Shanghai, an initiative of the official creation of an Energy club within the SCO was made by Vladimir Putin. June 29, 2007 in Moscow the first meeting of ministers responsible for development of fuel and energy complex in the framework of the Shanghai Cooperation Organization (SCO) was situated.

The participants exchanged views and agreed on the desirability to enhance energy cooperation for energy security of SCO member states and the necessity of comparing the national policies of SCO member states in order to its further harmonization.

At the same time the leaders of the five delegations (the Republic of Kazakhstan, Kyrgyz Republic, China, the Russian Federation and Tajikistan) have supported the establishment of the SCO Energy Club, a non-governmental advisory body on energy and have agreed with its regulations [2].

According to the Regulations approved, the Club should bring together representatives of both state agencies and big business and information-analytical centers working in the energy sector. The supreme body of the Club will be the High Level Group (HLG). In addition, as observers in the Club can enter two representatives of observer countries of SCO. Chairman of the HLG Energy Club will work on the principles of rotation. This person has to have a status of the national coordinator of the level not lower than the Deputy Minister of the State which presides in the SCO during current year.

It is expected that the Club will discuss the interaction of the SCO member states, as well as companies - producers, transit countries and consumers on international markets. One of the most important activities will be the implementation of information exchange in the field of energy between government, business and financial communities of SCO.

It should be noted that there are other points of view on the tasks and functions of the SCO Energy Club. Thus, Kazakhstan, endorsing the idea of the Club, offers to provide this structure with more rigid form. For its part, Kazakhstan initiated the idea of development and implementation of the Asian energy strategy.

According to the Kazakh side [3], within the SCO Energy Club and the implementation of the Asian energy strategy must address the following questions:

1. 1. Development of a mechanism of saturation of the SCO domestic market by energy resources. Expanding export opportunities for their supply to third countries.

Its implementation requires:

a) joint development of the SCO countries' joint fuel - energy balance (FEB) by the competent authorities.

This balance will determine the assessment of energy demand and energy production, potential volumes of export and transit flows. Its implementation will facilitate coordinated transit and export policy of energy supply for SCO domestic and foreign markets;

b) developing an optimal scheme of transportation of energy resources in the SCO framework, the creation of new transport systems and reconstruction of existing infrastructure designed to increase export flows of energy resources of the SCO.

It is advisable to prepare at the intergovernmental level:

- an agreement, which must define the most pressing transportation routes of energy resources and specific measures for their development.

In the area of electricity market development:

- a program of electricity grid construction, which involves the creation of a number of large interconnections of transmission lines to transport electricity within the SCO and to third countries.

In the area of the common oil and gas market:

- a program to create a modern SCO member states oil and gas infrastructure, providing the joint construction of new and reconstruction of existing oil and gas pipelines.

2. 2. Formation of the agreed principles of tariff, tax and customs policies in the energy sector in the countries of the SCO.

In the area of tariff policy it is appropriate:

- to develop a common methodological approaches for tariffs calculation for the energy transit (electricity, oil and gas) and prepare appropriate agreements;
- to optimize the railway tariffs for the supply and transit of coal in the SCO and to third countries and prepare an appropriate agreement, which will define common approaches to the formation of tariff policy.

In the area of tax policy it is appropriate:

- to take measures to simplify the current tax system in the energy sector, improving its flexibility and adaptability;
- to unify the list of excisable goods.

In the area of customs policy it is necessary:

- to develop appropriate legal documents, simplifying the procedure of customs registration of energy supply within the SCO and to third countries (including the transfer of electric energy in the mode of parallel operation of electricity power systems based on volume balance-overflow).

3. 3. Take steps to unify and harmonize national legislations in the field of energy.

Implementation of the above-mentioned intergovernmental agreements for formation of the energy market requires the adoption of measures to unify and harmonize national legislations. In this area it should be amended to:

- Customs codes of simplification of customs control of energy supplies;
- Tax codes of a flexible tax policy in the field of energy, and to adopt appropriate legislation to carry out the agreed tariff policy of the SCO states in the energy sector.

4. 4. Creating a financial-industrial groups and joint ventures for the production and transit of energy resources, production of necessary equipment.

In the area of common electricity market:

- a) Functioning of international water-energy consortium;
- b) the joint construction HPP in Kyrgyzstan and Tajikistan;
- c) the development of cooperation of energy and machine-building enterprises of CIS countries;

In the area of the common oil and gas market:

- a) establishment of an international oil and gas consortium;

The activities of the consortium will facilitate the effective development of oil and gas complex of the SCO countries, concerted customs, tariff and tax policies, the creation of modern oil and gas transporting infrastructure;

- b) creation of joint ventures for production of oil and gas equipment.

5. 5. Creation of energy exchanges within the SCO.

Creation of a common energy market requires the creation of energy exchange, a database which must reflect the information on supply and demand of energy resources, peak and

reserve capacity, the price of energy sold. The structure of the energy exchange should be included electric power, oil, gas and coal exchanges.

Functioning of this exchange will help to cover the energy demand of consumers, the establishment of a normal market, the competitive environment, the formation of equilibrium prices for energy resources and the definition of price targets defined by the market for the foreseeable future.

Manner and form a stock exchange should be reflected in the relevant agreement.

6. 6. Formation of a unified information space of the SCO in the energy field.

It is expedient to establish an appropriate site on the activities of branches of the energy sector of the SCO in the Internet. This site should contain formal statistical, analytical, scientific information on creating a single energy space within the SCO and other integration associations.

The presence of a common database would enhance the coherence of the SCO countries in matters of establishment and further development of the common energy market. For the creation of this site will need to take an appropriate agreement.

7. 7. Carrying out a coherent environmental policy.

At present an environmental problem is air pollution, water resources, the accumulation of hazardous and toxic wastes. Further development of the SCO energy complex entails increasing anthropogenic pressure on the part of its business on the environment.

Addressing key issues in the field of ecology is possible by:

- creation an appropriate legal framework for environment protection the, including environmentally oriented business taxation in energy, and the harmonization of national environmental and energy legislation;

- involvement to the fuel and energy balance of renewable energy sources to reduce the negative impact of energy activities on the environment and the conservation potential of non-renewable energy resources for future generations;

- improvement of monitoring of environmental pollution by energy utilities;

- modernization of energy facilities;

- reduction of environmental emissions of harmful substances and greenhouse gases;

- introduction of environmental insurance system.

Implementation of these directions, according to the Kazakh side will contribute to the effective functioning of SCO Energy Club and the formation of a common energy market, which will be the basis for sustained economic growth in these countries in the future.

It should be noted that many provisions of the Asian energy strategy echoes the Concept of a common energy market of the EurAsEC and the Concept of cooperation between the countries - participants of CIS in the sphere of energy [4,5]. Currently, decisions on the Asian energy strategy is not adopted, primarily due to the fact that the SCO countries, primarily Russia and China, are not yet ready for such format of energy cooperation within the SCO framework. Uzbekistan has its own particular position on the issues of energy cooperation as well.

China is largely assumes the investment component of energy cooperation within the SCO framework, especially in the development of energy infrastructure in the region. In 2009 loan worth 10 billion dollars for the Member States of SCO was announced, which was highly appreciated by other members of the organization. After that, China had a target to study these funds through close contacts and consultations with other member countries of the organization. Money will be spent primarily on projects of transport, energy and communication within the SCO, as well as

projects to improve people's welfare and economic development of other members of the organization. Thus, walk-shaped forms and mechanisms for financing of various programs, including the interstate energy sector were started.

V. DIRECTIONS AND ENERGY INFRASTRUCTURE DEVELOPMENT PROJECTS IN THE SCO FRAMEWORK

To date, we can state the fact of existing of a number of projects and programs of energy cooperation and energy infrastructure development in SCO countries - members with varying degrees of preparedness and readiness. Among them are [5]:

- Kenkiyak-Kumkol (Kazakhstan - China); The pipeline from Kazakhstan to China (10 billion m³ of gas per year); Cascade hydropower capacity of 21 MW on the river Khorgos on the Chinese border with Kazakhstan;
- Construction of Moinak HPP with 300 MW capacity in Kazakhstan;
- Three large coal mines and thermal power plants in Mongolia, and the associated 500-kV transmission lines in China;
- North - South electricity line 350 km in Tajikistan;
- Construction Yavan 150 MW HPP on the river Zeravshan in Tajikistan;
- Uzbekistan-China gas pipeline (up to 40 billion cubic meters of gas) for the transit of Turkmen gas to China;
- Cooperation between China and Uzbekistan in the field of exploration and development of oil and gas fields;
- Deliveries of gas from Uzbekistan to China (up to 10 billion m³ per year); Deliveries of natural gas and electricity from Russia to China; Russian oil to China (ESPO);

- Cooperation between Russia and Central Asia, Russia and China in nuclear energy;
- Cooperation of the SCO countries in the field of energy efficiency and developing of alternative energy sources.

It is important to note that most of these projects is discussed and agreed on a bilateral basis, which is now a priority not only within the framework of the SCO, but also in other organizations in the former Soviet Union

VI. CONCLUSION

Today, the countries of the former USSR has a serious challenge to rethink and change current practices for the "concept" of interstate cooperation in the energy sector and to develop jointly a new, more effective model that promotes the comprehensive development of all member countries, through a real interstate integration in the post-Soviet space in this area.

First, it requires significant enhancement and fundamental strengthening of coordination within and between the structures of the CIS, and SCO, which has a chance to become an effective blocks. It is obvious that the main format to solve these problems at an early stage should be the Eurasian Economic Community. The role of the SCO should be reduced to ensure political China's support for integration processes in the post-Soviet space. The role of Russia (the largest Russian energy companies and financial institutions) as a country - the "leader" of integration within the CIS - EurAsEC should be achieved through entering of Russian economic agents in the assets of "problem" of energy companies of CIS -, EurAsEC followed by taking on responsibility for operational management and strategic development of these assets. This scheme would relieve the tension of the problems of non-payment during energy trade between the Central Asian states and, consequently, restore the parallel operation of power systems of CIS countries

Secondly, in order to avoid CIS, EurAsEC and SCO duplicative projects at an early stage it is

expedient to force full integration within the CIS and EurAsEC, and at a later stage - integration within the SCO. As a result, this should ensure consistency and synchronization of efforts within the CIS, EurAsEC and SCO to achieve decisive progress in the comprehensive development of energy markets in the region.

In modern conditions the requirements for the decisions validity on issues of interstate cooperation in the energy sector rose sharply. Recently in post-Soviet space have been a number of events whose consequences have led to serious economic and political losses. Nevertheless, the analysis of the situation shows that the "window of opportunity" is not closed and there are grounds for the implementation of identified within the CIS, EurAsEC and SCO interstate nature of the objectives of energy. The task should follow a scientific community in studies of Eurasian energy prospects, is not only to detect and describe the problems, describe their characteristics and to prevent their existence decision-makers, the public, the scientific community. Today, it is important to provide details of what to do to overcome these problems, how to do it, when, what opportunities (resources) are needed for this, and what are the consequences of any action, what could be the alternative scenarios, the ability to compromise and adapt to new situations. In this regard, the development of regional energy cooperation within the CIS, EurAsEC and SCO must be sustained and comprehensive analytical support for decisions made by stakeholders to generalize here your main ideas and contributions.

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