

Russia's Energy Strategy in the Northeast Asian Region and New Korea-Russia Cooperation: Focusing on the Natural Gas and Hydrogen Sectors

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I. Introduction

This study attempts to identify new directions for energy cooperation between Korea and Russia, focusing on the areas of natural gas and hydrogen. In particular, we derive new directions and tasks for energy cooperation between the two countries, reflecting changes in the international energy environment, such as climate change and decarbonization, which are in full swing at the global level.

To this end, this study is consisted of the following four parts. Part II examines the geopolitics of energy coming into the 21st century and Russia's new energy strategy. Part III conducts an in-depth analysis of the energy cooperation strategies of China and Japan, major

Northeast Asian countries, with Russia, and Part IV comprehensively evaluates Korea's energy strategy and Korea-Russia energy cooperation. In conclusion, Part V presents new plans for Korea-Russia energy cooperation.

As a side note, after carrying out this study, the policy environment for energy cooperation with Russia has significantly changed. Russia's war against Ukraine is expected to change the landscape of global energy and its geopolitics in profound ways. In the midst of these significant changes, it is hoped that this study will serve as a meaningful reference for analyzing and forecasting the global energy dynamics surrounding Russia.

II. The Geopolitics of Energy in the 21st Century and Russia's New Energy Policy

There are three changing factors that directly or indirectly affect energy geopolitics and the new hegemony in the 21st century. The first is geopolitical factors. This is closely linked to the change in the status of the US in the global energy market with the development and emergence of shale energy, and to changes in US foreign policy, especially in the Middle East. The second factor is related to the share of renewables among energy sources and changes in eco-friendly technology. These technological advances and the growth of alternative energy markets are triggering the emergence of new energy actors. The last factor is climate change issues. A new awareness of climate change is bringing about drastic changes in global energy-related investment and finance.

Amid these changes, Russia is struggling to pursue a sustainable energy policy. Within the Energy Strategy to 2035, Russia presents the following major challenges, taking into account the changes in the global energy landscape caused by the COVID-19 pandemic, such as: (1) geographical transformation of the Russian energy production complex, (2) increasing share of energy exports to the Asia Pacific region, (3) securing technological independence in the energy sector, and (4) preparing a strategy to promote the “Hydrogen Economy,” etc.

In particular, Russia's hydrogen energy policy focuses on finding new energy markets in Northeast Asia to replace the shrinking European market while responding to the transition to green energy. Essentially, it aims to prepare a cooperative strategy to respond in a timely manner to the global green energy transition, and to increase exports to the Asian market in all energy fields, including oil, gas, and LNG.

III. China and Japan's Energy Strategy toward Russia

Since 2014, China has been strengthening energy cooperation with Russia in all directions in the face of Western economic sanctions against Russia. Japan, Russia's traditional energy partner, has also substantiated cooperation based on years of experience and excellent capabilities.

The main characteristic of China and Japan's natural gas cooperation with Russia is that it is building a solid foundation for cooperation in the three aspects of network, finance, and technology, which are indispensable for energy cooperation. In addition to close communication with Russia at the summit level, China is strengthening its energy cooperation platform with Russia by recently opening the China-Russia Energy Business Forum. Japan is also continuing its efforts to strengthen the Russian energy business network of related organizations, including the Japan Oil, Gas and Metals National Corporation (JOGMEC),

with the establishment of an intergovernmental high-level energy advisory committee.

Furthermore, both China and Japan are building a value chain that connects not only energy trade and capital input in energy cooperation with Russia, but also the joint advancement and development of related industries. To this end, China and Japan are very interested in strengthening their capabilities and expanding cooperation with Russia in terms of production technologies and production management.

In particular, China is strengthening its so-called “finance + energy” cooperation with Russia based on its strong capital raising capabilities. The Sino-Russian de-dollarization partnership is also expected to contribute to facilitating energy cooperation between the two countries. In the background of Japan's vitalization of energy cooperation with Russia, there is systematic financial support from JOGMEC and the Japan Bank for International Cooperation (JBIC), etc.

China and Japan are expected to further deepen technological cooperation with Russia in response to decarbonization. This is because, for the development of the hydrogen industry, it is necessary to develop fundamental technologies for hydrogen production, storage, and transportation. In addition, the demand for cooperation for high-efficiency and low-carbon technologies such as low-carbon LNG production based on Carbon Capture, Utilization and Storage (CCUS) technologies is expected to increase.

IV. Evaluation of Korea's Energy Strategy and Energy Cooperation with Russia

Korea's energy cooperation with Russia has been an area of great interest since the early days of diplomatic relations between Korea and Russia. However, looking at the overall situation so far, energy cooperation between the two countries has had nearly no remarkable achievements other than the Korea Gas Corporation (KOGAS) introducing natural gas from Sakhalin. Cooperation between the two countries in the field of gas remains at the level of commercial relations based on purchases and sales. In this regard, we propose a plan for Korea-Russia cooperation that reflects changes in the new energy market.

In order to strengthen energy cooperation between Korea and Russia, it is necessary to promote strategic cross-investment between the two countries in order to link the value chain of production and consumption. Russia is pursuing an integrated strategy that establishes the entire value chain from mining, refining, and sales of energy resources, while linking it with the development of a specific region.

In this process, Korea can secure an opportunity to strengthen energy cooperation with Russia through complementary investment as a partner in building a value chain rather than simply purchasing LNG. In addition, given that Russia is currently pursuing a plan to produce blue ammonia and hydrogen using natural gas, hydrogen cooperation can be expected

as a derivative field of natural gas cooperation between the two countries.

V. Seeking New Ways for Korea-Russia Energy Cooperation

The great energy transition currently underway at the global level is a major challenge for both Korea and Russia, and can provide opportunities and possibilities to open new horizons for energy cooperation between the two countries.

In this sense, this study presents new plans for Korea-Russia energy cooperation. This includes signing a “New Energy Partnership” cooperation agreement, vitalizing and strengthening the governance of energy cooperation with Russia, finding ways to cooperate in the area of energy in traditional and new fields, devising ways to cooperate in energy-related and other industries, and developing new cooperative measures in response to major transitions in the energy sector.

This study, in particular, emphasizes the need for technological cooperation between Korea and Russia in connection with the development, utilization, and transportation of hydrogen and renewable energy, which are future clean energy sources. At the same time, this study suggests the need for the two countries to establish a comprehensive energy cooperation model that connects the energy sector and related industries such as shipbuilding, maritime infrastructure, etc.

In conclusion, this study emphasizes that strategic consideration and political will at the government level for energy cooperation with Russia will act as a key factor for the development of bilateral relations with Russia and the future of the Northern Policy. **KIEP**

References

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