

Chairman's Summary: Focus on Natural Gas

Susumu Abe

Managing Director, Asian Pipeline Research Society of Japan

1. Goals of Holding the Forum

Due to changes in the global situation relating to energy resources, such as soaring oil prices and long-term energy demand and supply prospects, as well as the escalation of global environmental problems, ensuring a stable supply of energy resources and undertaking reforms of the demand and supply structure are once again high-priority national issues for each country. Consequently, there are active moves to build new national energy strategies centering on energy security and Japan is also considering its new national energy strategy.

Japan, which has an energy self-sufficiency rate of 4% (this only rises to 20% even if nuclear power is included), took the second oil crisis as an opportunity to actively develop technology relating to energy conservation and the environment, achieving the world's highest standards in this field. At the same time, Russia, which has a self-sufficiency rate of 160%, is aiming to become an export hub for oil and natural gas, while seeking to develop resources in Eastern Siberia and the Far Eastern region and cultivate the market for exporting gas to Northeast Asia, with the key aim of strengthening state control of resources. Thus, there is a real contrast between these two countries in terms of resources and energy issues.

In recent years, the plan for developing a unified natural gas production, delivery and supply system in Eastern Siberia and the Far Eastern region has been solidifying and a concept has emerged that involves not only exporting the natural gas produced as it is, but also constructing a gas industrialization region in which natural gas products with a higher added value are produced.

In addition to the exchange of the latest information concerning such matters among experts from Japan and Russia, this forum focused on examining the potential for technological cooperation using natural gas and the mutual interregional advantages of this.

2. Keynote Reports

Alexei Mastepanov, Advisor to the Deputy Chairman of the Board of Directors of Gazprom, gave a speech entitled Prospects for Natural Gas in Eastern Russia, Including Gas Processing and Gasification. He explained the immense vision for promoting development of gas fields in Irkutsk Oblast, the Sakha Republic, Sakhalin Oblast and Krasnoyarsk Krai, and integrating them into the unified natural gas supply system covering Russia as a whole (the Eastern Russia Gasification Program). The Russian government has instructed the Ministry of Industry and Energy and Gazprom to formulate the Eastern Russia Gasification Program, a gas export and environmental development plan, as a development strategy for the gas industry in Eastern Russia, with the phased development of a unified gas production and delivery system in Eastern Russia as a long-term goal. This program is due to be officially adopted at the end of this year. Irkutsk Oblast is a priority target for gas field surveys and the regional gasification plan, and an idea focused on the construction of an export-oriented gas chemical plant near the new gas production center has emerged. It is hoped that Japanese companies, which have the latest technology, will participate in achieving this goal.

From the Japanese side, Shigeru Nozaki, Senior Executive Director, Japan Bank for International Cooperation, gave a speech entitled Prospects for Future Russo-Japanese Energy Cooperation Based on the Sakhalin Project Experience, in which he stated that it would be beneficial for both Japan and Russia if Japan's high level of technological capability, experience and financial wherewithal could be combined with Russia's natural resources, with resources being exported not only to Asia, but also across the globe; moreover, it is likely that this will make a significant contribution to the stability of both the regional and global economies. In addition, he introduced specific examples of cooperation based on loans for the Sakhalin I and II projects and talked about the prospects for

the future, proposing fields in which natural gas cooperation between Japan and Russia could take place and stating his opinion that, in the global LNG (liquefied natural gas) market, which is likely to continue growing, Japan and Russia will be perfect partners.

3. Potential for Cooperation

Discussions during the natural gas session were divided into two sections, one focusing on the current status and potential of regions with links to natural gas, and the other concentrating on technologies for natural gas use and the development of natural gas industry.

In the first session, Kensuke Kanekiyo, Managing Director of the Institute of Energy Economics, Japan, spoke from the Japanese perspective about the current status of and issues concerning cooperation through natural gas in Northeast Asia in the era of high energy prices, pointing out that it is important to think in terms of Northeast Asia as a whole, rather than focusing on the markets of individual countries. He concluded that, in order to do this, it would be effective to clarify which aspects of specific projects would be mutually beneficial and to expand discussions about the roles that each country should play. Takehiro Togo, Senior Advisor at Mitsui Global Strategic Studies Institute and formerly the Japanese ambassador to Russia, analyzed the significance of natural gas from Far Eastern Russia in the energy situation of the Asia-Pacific region from a broad perspective and, taking the example of the current status of the Sakhalin II project, pointed out that the period is approaching when comprehensive cooperation that will contribute to the development of the local economy will be undertaken. ERINA researcher Shoichi Itoh suggested that Niigata, an area with a concentration of advanced technology, could have a role to play as a model region in the fields of energy and the environment in Northeast Asia in the future.

Valeriy Matuyshechkin, Director of the Gasification and Gas Use Bureau at Gazprom, informed those present of the current status of gasification in Eastern Russia and the details of the medium-term plan, as well as giving his honest opinions concerning the problems being faced. Boris Saneev, Deputy Director of the Energy Systems Institute at the Siberian Branch of the Russian Academy of Sciences, gave a presentation concerning the regional potential and effects of and problems relating to gasification in Eastern Siberia. He stated that issues such as the relationship between natural gas demand and the funding required, financing problems and the potential environmental benefits, such as a reduction in CO₂ emissions, must be considered from a comprehensive standpoint.

In the second session, Kazuhisa Marukawa, Vice-President of Toyo Engineering Co., which is currently building an LNG plant as part of the Sakhalin II project, discussed the fields in which technology transfer could be possible, based on his company's abundant international business experience, giving specific examples that included general applied project skills, energy conservation technology, maintenance technology and consideration for environmental protection measures. He pointed out the importance of building relationships of trust among those involved.

Akira Ishiwada, Director of the Methanol & DME Division, Mitsubishi Gas Chemical Inc., gave concrete examples of the effective use of natural gas in chemical products at the company's Niigata plant, including the manufacture of methanol and ammonia from gas from the East Niigata gas field. He also informed those present of the current status of the practical application of dimethyl ether (DME), which is created from methanol and which has recently come to be the focus of attention as a clean fuel. Hirota Shimizu, Councilor, Japan Oil, Gas and Metals National Corporation (JOGMEC: formerly the Japan National Oil Corporation), explained the status of national projects focusing on research and development concerning GTL (gas to liquid), which involves making diesel and kerosene from natural gas. Niigata is being considered as a venue for experimental studies and there is a possibility that Japanese GTL technology will be disseminated to the rest of the world from Niigata.

Pavel Zorin, Deputy Chairman of the Budget Committee of the Irkutsk Oblast Assembly, explained the situation with regard to the Irkutsk Oblast General Gasification Plan, which includes the expansion of gasification and the gas chemical industry in the region using the Kovykta gas field. The idea of incorporating the Kovykta gas field into Russia's unified gas supply system and building an international pipeline to China and the ROK is being considered. Igor Bakhtin, Deputy Director of Gazprom's Eastern Project Coordination Bureau, who has been appointed the coordinator of the Eastern Russia Gasification Program, suggested fields in which cooperation with Japanese companies could be possible, including gas processing projects, gas chemical projects, exports of natural gas from Russia to Japan, the production and export of GTL and DME, and investment by Japanese companies in the Russian energy industry. In addition, he stated that it would be possible to undertake joint research and the exchange of information focused on fields of mutual interest.

4. Towards the Formation of a Network

It is difficult for a single country to resolve energy and environmental problems working alone, so it is essential that each country make use of its strengths, using these to complement each other's weaknesses and aiming to achieve mutually beneficial regional cooperation that promotes harmonious coexistence. We should aim for a win-win situation that aspires to revitalize the regional economy, rather than a zero-sum game with a competitive scramble for resources; it will not be possible to build sustainable cooperative relationships if countries pursue only their own interests.

Ultimately, it would be appropriate to establish a comprehensive international organization focusing on energy and environmental issues, but at present, unfortunately, the relevant countries do not have any clear incentives to act in concert. Accordingly, I believe that it is vital to conduct discussions within a track two-type forum such as this, raising awareness of the value and effectiveness of international cooperation and pursuing a path that aims to translate feasible plans into concrete projects.

Rather than focusing on “partial optimization”, through which individual countries seek to achieve solutions, it would be preferable to pursue the path of “total optimization”, which seeks to achieve solutions via regional cooperation that focuses on mutual complementarities. Accordingly, it would be desirable to clarify the roles that each country should play and consider a regional action plan (grand design) aimed at achieving sustainable development based on development that conserves resources.

At this forum, specific issues relating to international cooperation focused on natural gas, which could become a dominant field in Russo-Japanese energy cooperation, gradually became clear, as did the potential direction of such cooperation. Moreover, the role of national and local government institutions in promoting private-sector cooperation aimed at regional development was reaffirmed. Through ERINA’s continued endeavors, a network of people with links to the field is being built up and, with this forum, we are moving ahead towards the formation of a sophisticated international intellectual network.

Niigata has a history, traditions and culture in which the energy industry has developed in close connection with the local area and many promising competitive companies with advanced technology relating to natural gas are active in the prefecture even today. Before the forum, participants took part in visits to the LNG base of Nihonkai LNG Co.,

Ltd., the Higashi Niigata power station of Tohoku Electric Power Co., Ltd., the Niigata plant of Mitsubishi Gas Chemical Co., Inc., and the Kashiwazaki Kariwa nuclear power station of Tokyo Electric Power Co., Ltd. These visits were very effective in promoting Niigata as a hub with an accumulation of energy-related technology. In considering a natural gas cooperation plan, Niigata’s gas field, LNG base and the trans-Honshu pipeline that delivers gas to the Pacific side of Japan are regional characteristics and factors that will give Niigata an edge.

How will the benefits of Russo-Japanese energy cooperation, which will be the backbone of energy cooperation in Northeast Asia, be returned to provincial areas? This forum also provided an opportunity for this region to consider this question itself. It seemed that interest in this forum is increasing, with the conference participants including experts from related fields from across Japan, and the number of participants from industries with a link to local areas also increased. The forum demonstrated that further effort will be required in order to overcome the many issues pointed out and to move from the stage of discussions aimed at the formation of an international intellectual network to the stage of practical action, so that we can achieve concrete regional exchange and company interaction.