

Closing Remarks

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Today we were able to conduct extremely content-rich discussions on Japan–Russia energy cooperation, including oil and gas issues, and energy conservation, environmental and electricity issues. We received excellent presentations from the deliverers of the keynote address and reports, and the panelists in the two sessions, as well as challenging questions and comments from the floor. Now, I would like to summarize the address, reports, panel presentations and discussions to the best of my understanding.

Keynote Address

Mr. Nobuo Tanaka, Chairperson of the Sasakawa Peace Foundation (former Executive Director of the International Energy Agency (IEA)) delivered a keynote address, entitled “The Stormy Energy Strategy.”

According to Mr. Tanaka, in the long run global energy dependence on coal and oil will probably continue to fall, while dependence on gas and renewable energy will continue to climb. However, even though global dependence on oil will continue to fall, for some time to come the role of oil as an energy source will remain important. This also applies to Japan. To date Japan has depended considerably on the Middle East for oil imports, and to a certain extent has depended on the Middle East for natural gas (LNG) imports. But geopolitically the Middle East is an unstable region, and there is also the problem of maintaining the sea lanes connecting the Middle East and Japan. Taking this into consideration, it is important for Japan to continue expanding imports from its close neighbor, Russia, of both crude oil and natural gas. Japan and Russia should be able to build a win-win relationship, with the diversification of suppliers from the vantage point of Japan, and the diversification of demand sources from the vantage point of Russia. Regarding natural gas in particular, he said that the construction of a pipeline between Japan and Russia, connecting Sakhalin and Hokkaido, is worthy of consideration.

In the question and answer session, Mr. Tanaka stated that in Japan, while there have been a variety of constraints and business models to date regarding how to secure energy supplies in a stable manner and at low and stable prices, in the future it will be important to further diversify energy supply sources in addition to paying attention to prices and stable supply. With regard to electricity issues in Japan, he suggested that Japan might allow the entry of Gazprom electric power into the domestic electricity generation sector and/or consider the import of electricity generated in Russia.

Keynote Reports

Mr. Keiichi Shima, Director, Japan–Russia Economic Affairs

Division, European Affairs Bureau, the Ministry of Foreign Affairs, explained the progress regarding the “eight points for economic cooperation” between Japan and Russia. The eight points include medical care, urban development, SMEs and business, energy, industrial diversification and productivity, development of the Far East, high technology, and human exchange. He stated that although the extent of discussions and implementation varies across these areas, there has been overall progress.

Mr. Aleksei Karaivanov, Director, Economic Department, Trade Representation of the Russian Federation in Japan, talked about Japan–Russia cooperation as viewed from Russia. He viewed cooperation on the eight points to be progressing, trade between Japan and Russia to be growing, and great potential to exist for further growth. Given that 2018 is the Year of Japan in Russia, he wanted Japan–Russia cooperation to expand particularly in the academic and innovative energy technology fields, but it has not advanced much. He also explained the current situation for special economic zones in Russia.

Mr. Kazushige Tanaka, Director, International Affairs Division, Commissioner’s Secretariat, Agency for Natural Resources and Energy, provided a comprehensive overview of Japan’s energy issues in general. He stated that Japan’s energy self-sufficiency rate is extremely low, being next to last among OECD member countries, and stressed that Japan needs to continue raising the self-sufficiency rate in the future. He said that the basic principle of Japan’s energy strategy to raise its long-term energy supply is “3E+S”, that is, energy security, efficiency, and the environment, with safety as the top priority.

Session A: Energy Resources

First, Mr. Ken Koyama, Managing Director, Institute of Energy Economics, Japan (IEEJ), made a comprehensive, interesting presentation on the subject of “Challenges in Asia and the World Energy Market and the Role of Russia.” He said that Russia needs to continue securing stable overseas markets for both crude oil and natural gas, and that while the Asian market is promising to that end, Russia will likely face serious challenges from the long-term perspective. The current crude oil price is low at around US\$50–60 a barrel, reflecting excess supply, but in the future market rebalancing (equalization of supply and demand) will proceed, and the crude oil price will return to the US\$70 level in the 2020s. However, there is the possibility that from 2030 to 2050 the global crude oil market structure will change greatly, and the crude oil price will continue falling. This is because in the future, for the world as a whole, and not only in Europe and China, there will be a shift from automobiles centered on internal-combustion engines (gasoline and diesel engines) to electric vehicles (EVs). He introduced the results of an

IEEJ analysis in which, assuming that globally 30% of new vehicles sold in 2030 will be zero-emission vehicles, and 100% in 2050, global oil demand will reach its peak in around 2030 and subsequently fall, and along with that the crude oil price will also fall. He said that this poses a serious challenge for oil-producing countries like Russia, which will have to strive for the diversification and improvement of the economic structure away from dependence on crude oil. In the question and answer session, regarding the results of the IEEJ analysis, he added an explanation that the demand for electricity is likely to increase just with EVs increasing, but the forecast for crude oil demand will vary depending on the composition of the primary energy sources of electricity to that end (for example, whether renewable energy or oil-fired power plants).

Next, Mr. Alexey Gromov, Director of the Energy Department, Institute for Energy and Finance, Russia, delivered a report on the subject of “Global Oil Market Trends and Russia’s Energy Strategy” from Russia’s vantage point. Referring to the “Energy Strategy of Russia for the Period up to 2035”, he presented several concrete figures, in addition to mentioning the continued construction of the gas complex together with the production and transportation infrastructure in East Siberia and the Far East. He cited some numerical targets to be reached by 2035, that is, Russia will: increase energy exports by more than 20%; increase the share of energy exports to Asia-Pacific countries to 30–40%; increase crude oil exports by 3–25%, and exports to Asia-Pacific countries in particular by 1.7 to 2.3 times; and increase natural gas exports to Asia-Pacific countries by 5 to 9 times. Looking at the current situation, he said that Russia’s exports of crude oil and petroleum products to Japan have been rising, and the eastward shift of energy export destinations has been progressing. He explained that in Russia there are large gas reserves in East Siberia and the Far East, and they are gearing up to supply it in large quantities to the Asia-Pacific region, including China, using the gas pipelines between Sakhalin, Khabarovsk, and Vladivostok now under construction, and the “Power of Siberia”, the Russian Federation’s largest gas transmission system pipeline. Japan–Russia cooperation is taking place in Sakhalin I, Sakhalin II, and the development of oil in Irkutsk and of LNG plants in Yamal in East Siberia, and cooperation in the establishment of a joint Japan–Russia investment fund has been progressing. For Japan, Russia will be a stable supply source for crude oil and natural gas, and there is great significance in Japan and Russia jointly advancing collaborative development of natural energy resources in the Far East and Siberian regions. Japan–Russia cooperation is a win-win matter, and such cooperation will go on advancing in the future.

Mr. Yoshinori Terasaki, Deputy General Manager, Fuels Department, Thermal & Nuclear Power Division, Tohoku Electric Power Co., Inc., outlined Tohoku Electric Power’s fuel procurement, on the subject of the “Current Situation of Tohoku EPCO’s Fuel Procurement,” and explained future projects for cooperation with Russia. Tohoku Electric Power Co. (Tohoku EPCO) possesses two nuclear power stations (Higashidori in Aomori Prefecture and Onakawa in Miyagi Prefecture), thermal power stations, geothermal power stations, and hydroelectric power stations. Regarding its power source composition, there has been a substitution of nuclear by LNG thermal generation since 2011. Moreover, Tohoku EPCO possesses two LNG terminals (a Japan Sea coast LNG terminal in

Seiro Town in Niigata Prefecture, and a Sendai LNG terminal), and it has been purchasing gas for these terminals from Russia (such as from Sakhalin II), which is close geographically. He said that in procurement, Tohoku EPCO has so far emphasized the three factors of stability, economic efficiency, and resilience, and will continue to secure supply from Russia in the future while adhering to these three factors.

Mr. Daisuke Harada, Project Director, Japan Oil, Gas and Metals National Corporation (JOGMEC) provided a report on the subject of “Japan–Russia Cooperation in Oil and Gas Upstream in Eastern Russia: The Current Status and Prospects Thereof.” Acknowledging that the energy strategy of Russia is based on its eastward shift, he emphasized its favorable significance for Japan’s energy security. According to him, currently Japan’s crude oil imports from Russia exceed 6% of total imports and gas imports are some 9% of the total, and both have leapt up in the last decade. This is because of the eastward shift (the commencement of exports of LNG from Sakhalin II and the coming into operation of ESPO) in 2009. He said that as the transportation costs of Russian crude oil are high and in Asia Russian crude oil is competing with crude oil produced in the Middle East, the Russian government has been providing tax incentives to oil firms. In this sense, he viewed the crude oil supply from Russia to contribute greatly to Japan, which has required diversification of the supply sources from which it procures crude oil. Regarding natural gas, since the commencement of LNG exports from Sakhalin II in 2009, Russia has been supplying Japan with relatively cheap LNG. He said that with the LNG supply from US shale gas increasing, there will be an excess supply of natural gas in the future, and the gas-producing nations will be exposed to fierce price competition. Amongst them, Russia in 2014 agreed a long-term supply contract with China for natural gas from East Siberia via the “Power of Siberia” pipeline. His analysis showed that Sino–Russian gas cooperation, rather than creating the zero-sum game of competition for resources between Japan and China, will further advance the development of East Siberia in Russia using the opportunity provided by the “Power of Siberia”, and has great potential to contribute to the expansion of Russia’s gas supply capacity.

Mr. Kazumasa Miyazawa, General Manager, Russia and Australia Gas Business Division, Energy Business Unit II, Mitsui & Co., talked about “Japan–Russia Cooperation in the Development of Russian Natural Resources.” He explained the case examples of Mitsui & Co.’s initiatives in the light of the potential of Russia’s energy business and the development of Japan–Russia relations. When President Putin visited Japan in December 2016, 80 or so Japan–Russia cooperation documents were exchanged, and Mitsui & Co. concluded seven Memoranda of Understanding with Russia, of which two were related to energy cooperation. According to him, for Japan, Russia is important as an energy supplier, and Sakhalin is one of the most attractive regions for resources, having huge oil and natural gas reserves, lying at a close distance of 1,000 km from Japan, and being a mere 2–3-day voyage by sea for LNG transportation. He explained Sakhalin II is a project for oil and gas development offshore of Sakhalin, has had a total cost of US\$20 billion, and is Russia’s first offshore resource development and first LNG development project, and currently projects for expanding Sakhalin II are in the planning stage, and commencement of

production is planned between the middle of 2023 and the middle of 2024. Mr. Miyazawa also explained the initiatives for the utilization of LNG shipping fuel in Vladivostok and for a gas master plan with the government of Sakhalin Oblast.

Mr. Satoshi Sakai, Senior Advisor, Europe/Russia Oil & Gas Business Department, Mitsubishi Corporation, evaluated the “Energy Strategy of Russia for the Period up to 2035” on the subject of “Oil and Gas Exports by Russia to the Asia-Pacific Region.” He said that in the draft strategy a forecast is shown of exports of crude oil and gas expanding to 2035, and the bulk of the increase in exports is assumed to be to Asian countries, starting with China. Regarding crude oil, differing from the assumption of Managing Director Ken Koyama as to when global and particularly Asian demand will peak in the future, Mr. Sakai said it will be from the 2030s on. Regarding gas, he stated that Russia’s energy strategy assumptions may not be unrealistic because of consistently rising global and Asian demand. However, he expressed a fundamental doubt as to whether Russia could increase its supply capacity for crude oil and gas production. Regarding crude oil, as Russia’s domestic transportation costs are high and currently the export price is being held low with government assistance, he questioned whether such assistance will be maintained for a long time and said the reduction of transportation costs will be a must. Regarding gas, he pointed out as challenges for Russia the fact that currently there is excess supply globally and price competition will continue for some time, and the fact that the form of transactions is shifting from long-term to short-term and spot transactions. For the latter, in the planning of LNG production which has no guaranteed purchase based on long-term contracts, he doubted how much capital Russian gas firms can invest. He said that Russia, with the emergence of US shale gas as a competitor, is facing significant challenges.

Mr. Hiroshi Ishikawa, Director and Plant Manager, and Mr. Atsushi Takada, Deputy General Manager, Customer Service Department, both of Tokyo Boeki Engineering, Ltd., talked about the loading arm system for LNG, and in particular about its safeguard system. The loading arm is connected to an LNG or oil tanker and carries out cargo handling, thus playing an essential role in the transport of LNG and oil. They explained that when, during cargo handling, the loading arm exceeds the range of movement of the arm via the unexpected movement of a vessel, or an emergency situation arises such as a fire, earthquake or tsunami, it automatically disconnects from the vessel without any leakage of liquid or gas from within the arm.

Session B: Energy Conservation, the Environment, and Electricity Generation

Mr. Magomed-Salam Umakhanov, Head of Innovation Development Department, Russian Energy Agency, explained the potential for the development of the renewable energy sector in line with the “Energy Strategy of Russia for the Period up to 2035” and the prospect of the expansion of Japan–Russia cooperation. He said Russia boasts abundant hydrocarbon energy reserves, and at the same time is making efforts to reduce CO² emissions via the development of renewable energies such as solar and wind power electricity generation. However, to that end, he emphasized that

cooperation with overseas partners, particularly Japan with its high technological level, is vital. As an example of Japan–Russia cooperation, he raised the largest wind electricity generation plant in the Russian Far East, which was installed in Ust-Kamchatsk in Kamchatka Krai with the support of the New Energy and Industrial Technology Development Organization (NEDO) in autumn 2015. He pointed out that to the present time, seven agreements have already been signed in the renewable energy sector between Japan and Russia, and noteworthy among those is the agreement on the establishment of the Japan–Russia joint energy bridge linking Sakhalin and Hokkaido.

Mr. Nobuaki Aoyama, Chairman, Planning and Operation Committee, Japanese Business Alliance for Smart Energy Worldwide (JASE-W), talked about Japan–Russia energy-conservation cooperation. He explained that JASE-W’s plan is to continue to realize, in private–public partnerships, energy-conservation projects including industry, plants and facilities, buildings, and infrastructure, and to strengthen cooperation with the Russian Energy Agency (REA) to which Mr. Umakhanov belongs, for specific projects. In the question and answer session, he pointed out that Russia is interested in smart energy and smart grids and is eager to work with Japan because of its high technology, including cogeneration systems at the core of smart grids and highly efficient clean-coal technology.

Mr. Alexei Kolodeznikov, First Deputy Prime Minister, Sakha Republic, discussed the challenges for electricity generation systems in the Sakha Republic and expected fruitful Japan–Russia cooperation on electricity generation and energy conservation. He said that in the Sakha Republic, a pipeline reaching the Pacific Ocean from East Siberia is being built, the “Power of Siberia” gas pipeline to China is under construction, and oil and gas are being extracted and supplied to Asia. He explained that at the same time, concerning the electricity supply within the republic, costs are high because local electricity sources from multiple small-scale diesel generation are the main ones, and the challenge is to introduce renewable energy and reduce the cost of electricity. From that perspective he expressed the view that cooperation with Japan is extremely important, and currently, in accordance with the Japan–Russia economic cooperation plan being promoted by Prime Minister Abe and President Putin, discussions are taking place on the introduction of wind power electricity generation facilities and gas electricity generators. He added that as it is a frigid region, there is strong interest in the reduction of heat production costs by raising energy conservation and in particular thermal efficiency, and the republic would like to continue cooperating with Japanese firms on this point.

Mr. Shinji Yamamura, Executive Officer, Nikken Sekkei Research Institute, introduced the construction of an energy-saving smart city in the City of Krasnoyarsk, as an example of Japan–Russia cooperation. He showed that it is possible to realize energy conservation, low carbonization, and smartization by combining Japan’s energy-conservation technologies and systems and Russia’s good equipment products. Furthermore, considering the likes of Shinjuku and Shibuya in Tokyo which have become urban constructs with low energy consumption by achieving high efficiency in travel distance centered on public-transportation stations, he said he and his team are proposing urban planning in Voronezh, capital of Voronezh

Oblast, with the aim of energy conservation and low carbonization via the creation of such cities.

Lastly, Mr. Hideyuki Wakutsu, Head, Industry Promotion Division, Department of Industry, Labor and Tourism, Niigata Prefecture, talked about the current efforts to promote renewable, next-generation energy in Niigata Prefecture. Specifically, he explained: initiatives on electricity generation via renewable energies such as solar power (Snow Country-style mega solar), wind power, marine energy, geothermal power, hydropower, and small-scale hydropower; the utilization of renewable heat energy including heat from snow and geothermal energy; the examination of the practical use of hydrogen as a next-generation energy source; and the promotion of the practical use and development of methane hydrates. In addition, as projects being implemented in the prefecture, he proposed: subsidies for projects promoting the entry and nurturing of new energy industries; subsidies for projects promoting the practical use of local renewable energies; and projects for fuel-cell vehicles and hydrogen stations and their dissemination.

As stated earlier, many useful addresses, reports and panel presentations were made by government officials, experts and business persons. These were followed by equally valuable discussions in the question and answer sessions with the floor.

Throughout today, amid the pursuit of the eight points for economic cooperation between Japan and Russia, we reaffirmed the vital importance of Japan–Russia energy cooperation. Japan–Russia intergovernmental energy cooperation currently includes the three planks of hydrocarbons (oil and gas), energy conservation and renewable energy, and nuclear power, and today we focused on the first two, i.e., oil and gas, and energy conservation and renewable energy.

Since the 2011 Fukushima nuclear power plant disaster, Japan has been searching for a stable supply of energy and the best energy mix. On the other hand, Russia has been formulating the “Energy Strategy of Russia for the Period up to 2035” to further push forward the “eastward shift” (the policy of promoting the east). Japan has been trying to reduce its over-dependence for oil and gas on a Middle East that as always is not stable geopolitically, and diversify energy supply sources, while Russia has been attempting to secure stable energy export destinations. Thus Japan–Russia cooperation on oil and gas is win-win.

In addition, Russia has been aiming to address environmental issues and CO² emissions and raise thermal efficiency and lower electricity generation costs via energy/heat conservation and renewable energy development. Here, Japan can play a complementary role through the provision of its energy conservation

and electricity generation technologies. From this perspective, Japan–Russia cooperation on energy conservation and renewable energy is also win-win. It is fair to say that energy cooperation is the core component of Japan–Russia economic cooperation.

From today’s discussion several questions remain unanswered. First, there is the question about the future outlook for crude oil demand. As Asia, centered on China, India and ASEAN, will continue rapid economic growth in the future, demand for crude oil will inevitably rise, but the question is until when. The introduction of electric vehicles could be a factor, but clear views have yet to be provided as to whether demand will continue to grow to 2050, or peak sometime in the 2030s to 2040s. Second, Russia is planning to expand its production and exports of crude oil and gas to 2035, based on the “Energy Strategy of Russia for the Period up to 2035”, but doubt has emerged from several Japanese experts about whether Russia can strengthen its supply capacity to meet Asia’s rising energy demand in the future. For Japan the expansion of imports from Russia to diversify crude oil and gas supply sources away from the Middle East is desired, but there are several concerns. Regarding crude oil, the question is how far the Russian oil-field extraction costs and the transportation costs to the export terminal will fall in the future, and, regarding gas, the question is how much incentive Russia will have in expanding supply capacity without relying on long-term contracts and stable prices. Third, sufficient analysis, in terms of technological challenges, costs, and required policy changes, has yet to be provided on the feasibility of the Japan–Russia joint energy bridge (for electricity trading) and the natural gas pipeline, both linking Sakhalin and Hokkaido. As these initiatives allow Japan to import Russian electricity and natural gas, further discussion and debate will be useful as part of Japan–Russia energy cooperation. Fourth, with the rising gas supply from US shale gas, excess supply of natural gas can be expected in the future, and the gas-producing nations will face fierce price competition. The question is whether Russia has started to address this challenge and begun its effort to transform its economic structure into a more diversified one by developing competitive manufacturing and service sectors. In this transformation, what role can Japan play as part of Japan–Russia cooperation?

Once again, we had a frank dialogue among the participants from Japan and Russia to move Japan–Russia energy cooperation forward. While keeping in mind several of the discussion points and questions which emerged today, I hope to meet you again at the next Japan–Russia Energy and Environment Dialogue.

[Translated by ERINA]