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Japanese-Russian Energy Cooperation: Problems and Perspectives

Introduction

Given the geographical proximity, complementary economic needs, and desire to diversify their respective energy policies, Japan (one of the world's top energy consumers) and Russia (one of the world's top energy producers) should naturally seek to expand their energy relations with one another. The historical precedents of their bilateral cooperation (even if with limited success) and the lessons that could be learned from the earlier energy cooperation initiatives should provide invaluable insights for the realization of the currently ongoing joint projects and future energy cooperation initiatives between Japan and Russia.

Contemporary Japanese-Russian relations have undoubtedly had a very complex and contentious history. However, while the two countries' trade and economic ties have recently been enjoying a robust growth[1], their political relations remain hostage to the unresolved dispute over the four Kurile Islands as a notorious legacy from the WWII period. Despite Japan and the Soviet Union reestablished their diplomatic relations in 1956, the two countries, having failed to conclude their peace agreement and final border settlement, are yet to fully normalize their relations with one another.

Based on the close linkage of politics and economics in the two countries' respective energy policies, it is plausible to argue that through expansion of their energy cooperation, Japan and Russia should be able to further improve their relations by boosting mutual trust and understanding. Presently, the unresolved political problems do not seem to have a significant impact on Japan-Russia economic and trade cooperation as they did during the Cold War era. However, it would be highly beneficial to both countries to deepen their dialogue in search of timely, effective and mutually-acceptable solutions to their outstanding diplomatic problems. Furthermore, building their relations based on mutual trust and understanding would help improve further their relations in other spheres as well, including bilateral energy cooperation.

[1]In 2007 total Japanese-Russian trade exceeded $20 billion; the number of Japanese companies currently operating in Russia reached 302 (*Nezavisimaya Gazeta*, 04/15/2008). During the first half of 2008, imports from Japan to Russia reached $8.3 billion (a 57% increase from the same period in 2007); Russian exports increased 62% to $5.1 billion (Bloomberg News, September 4, 2008).

1. History of bilateral cooperation: Lessons from the past

In spite of various political, strategic, and economic concerns that were especially evident during the Cold War period, Japan and the former Soviet Union were involved in a number of bilateral projects in the energy field, with a particular focus on Soviet Far East and Western Siberia.[2]

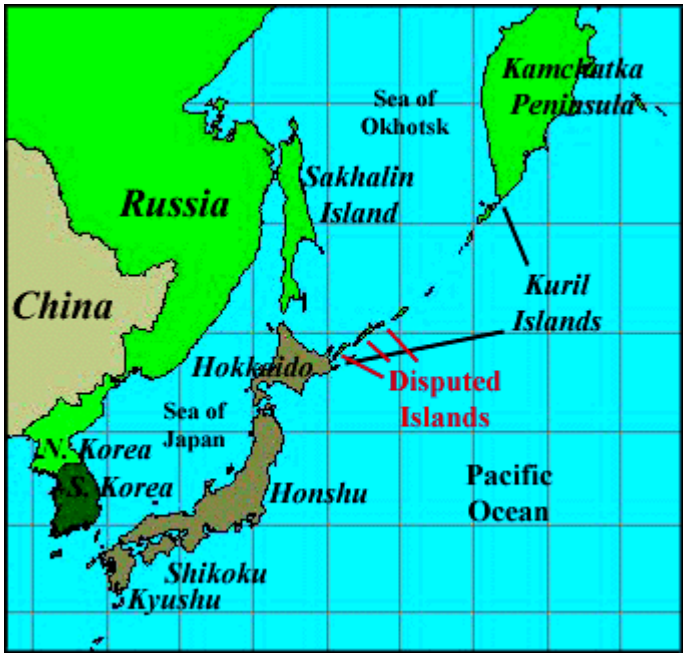
The first Soviet-Japanese energy project proposals surfaced in the early 1970s. The proposals focused mainly on joint development of Soviet energy resources in Western Siberia (for example, Yakutia Natural Gas and Tyumen Oil Development Projects) and the Soviet Far East (for example, Sakhalin Continental Shelf Oil and Gas Exploration Project).

Table 1. Japan-USSR Joint Energy Initiatives in the 1970s

Projects and their Descriptions	Yakutia Natural Gas Project	Tyumen Oil Development Project	Sakhalin Continental Shelf Oil and Gas Exploration Project
Initiation Date	Joint Agreement signed in 1974; expected start date: 1982	Initially discussed in February 1972; expected start date: 1981	Joint agreement was officially signed in January 1975
Primary Project Signatories and Developers	**USSR:** Ministry of Foreign Trade **Japan:** Tokyo Gas, Natural Gas Kondankai **USA:** El Paso Natural Gas and Occidential Petroleum	**USSR:** Ministry of Foreign Trade **Japan:** Petroleum Committee (Despite Japan's hopes and requests, US declined to participate)	**USSR:** Ministry of Foreign Trade **Japan:** Sodeco (was created in October 1974 especially for this project; currently a member of Sakhalin-1 consortium) and JNOC **USA:** US Gulf Oil as a minor shareholder
Net Total Investment	Exploration stage investment: Japan and US to invest 25 billion dollars each	Japan was expected to provide bank loans (1.3-1.7 billion dollars) in total	In total 237.5 million dollars (including 150 million dollars in commercial credit for the first 5 years)
Project Description	25-year term; joint development of Yakutia gas reserves and related infrastructure; construction of gas pipeline to port Olga on the Sea of Japan and LNG plant; Primary Target Customers: Japan and the US West Coast (LNG).	Japan was expected to supply all necessary equipment for oil exploration, drilling, and delivery of crude and to construct a seaport facility for crude shipments from Russia; in exchange, Japan will be compensated with 25 million tones of crude annually for 25 years	One of the first compensation-base projects; initial term was set at 10 years; Japan was expected to provide capital investment and commercial credits to finance Soviet drilling and exploration activities in Sakhalin; in compensation, the Soviet side would provide Japan with 50% of the obtained oil during the loan term and for 10 years after its expiration.
Status/Outcome	Due to various (mostly political) considerations, the trilateral joint venture was officially dimantled in 1980	Excessive project costs especially for infrastructure development and great distances made this project prohibitive; also strategic and political reasons (protests by the US and China regarding the BAM railroad construction to deliver crude oil to the Pacific coast) - all prevented this project from materialization and led to its abandonment by mid-1970s	For political, economic, and technical reasons (lack of necessary drilling equipment and prohibitive oil extraction costs), the project had stumbled by late 1970s (especially after the Soviet invasion of Afghanistan and US trade embargo policies); but it was not completely abandonded; instead it "reincarnated" by mid-1990s as Sakhalin-1 project

[2] The author of this presentation has written an extensive account of early joint initiatives for energy cooperation in her doctoral dissertation entitled *Energy Politics in Japanese-Soviet/Russian Relations: From Cooperation Initiatives in the 1970s to Cautious Engagement in 1990s* (Hosei University, Tokyo, March 2006) and in related articles, such as *Energy Politics in Japanese-Soviet Relations in the 1970s: Complementarity and Conflict* (The Russian and Eastern European Studies, Annual Magazine of the Japanese Association for Russian and East European Studies- JAREES, Keio University, Vol. 35, March 2007).

However, with the exception of the Sakhalin oil and gas project), these projects failed to materialize due to a number of the following factors. In particular, political tensions and strategic considerations incited by the Cold War rivalry between the Soviet Union and the United States played the most critical role in derailing of bilateral energy initiatives and projects.



Source:<http://geography.about.com/library/weekly/aa021400a.htm> (The New York Times Company).

Although Japan was interested in expanding its energy collaboration with the neighboring USSR, as a US military ally, it also had to consider, and often side with, the US stance on its foreign and economic policy vis-à-vis the Soviet Union. These considerations, exacerbated by the unresolved Kurile Islands dispute, resulted in the shift of Tokyo's policy toward politicization of its trade and energy cooperation with Moscow, which by the early 1980s evolved into the so-called policy of "inseparability of politics and economics" (*seikei-fukabun*).

Another external political factor that cast a shadow on Japanese-Soviet energy cooperation in the 1970s was the U.S. and Japan's political rapprochement with China in 1972, which the Soviet Union viewed as a direct threat to its strategic interests in East Asia. Not only did China support Japan's territorial claim in the Kurile dispute, but it (along with the U.S.) put pressure on Japan to withdraw from the energy projects in Eastern Siberia (particularly the Tyumen Oil Development Project) arguing that such collaboration would grant the Soviets strategic advantage in the region.

In addition, Japan eyed the US participation as its "insurance policy" to share credit and investment risks as well as sought US political support for its territorial claims in its relations with the Soviet Union. The failure to secure the backing of the United States tapered Japanese enthusiasm for its participation in joint energy initiatives with the Soviet Union. Finally, after the 1979 Soviet invasion of Afghanistan, and United States and its allied launched the ideologically-driven "economic Cold War" against the USSR. The U.S. immediately reacted by imposing a trade embargo on the USSR (consequently adopted by the Japanese government), which, in addition to the technological embargo introduced in 1978, further undermined the feasibility of Japanese-Soviet energy cooperation.

In addition to the above-mentioned political and ideological factors, numerous problems with project-financing due to difficult loan- and credit negotiations between Japan and USSR, the lack of

sufficient technology and equipment as well as poorly developed infrastructure and difficult climate conditions in Eastern Siberia/Far East made it very difficult for Japanese-Soviet energy projects to materialize.

2. Overview of most recent developments in bilateral energy cooperation

Despite a considerable potential for Japanese-Russian energy cooperation, presently there are only a few feasible projects and initiatives that have a potential to effectively address energy needs of both Japan and Russia. They are geographically limited to Sakhalin Island (the ongoing Sakhalin-1 and Sakhalin-2 projects – see Table 2 for the projects' overview) and the Eastern Siberia/Primorsky Krai (the proposed ESPO pipeline and its related projects).

2-1. Sakhalin Projects

Table 2. Overview and Current Status of Sakhalin- and Sakhalin-2 Projects

Name	Sakhalin I	Sakhalin II
Primary Project Developers	**US:** Exxon Neftegaz (30%), **Japan:** SODECO (30%), **India**: ONGC Videsh (20%), **Russia:** Sakhalinmorneftegaz (Rosneft-Sakhalinmorneftegaz Subsidiary, 11.5%), and RN Astra (Rosneft Subsidiary, 8.5%)	**Russia:** Gazprom (50%+), Sakhalin Energy Investment Company: Shell (27.5%), **Japan:** Mitsui (12.5%), Mitsubishi (10%)
Oil Reserve Estimate	2.1 billion barrels of oil and gas condensate	1 billion bbl
Natural Gas Reserve Estimate	474 Bcm	507 Bcm
Net Total Investment	Phase 1: $5 billion	Phase 1: $4.5 billion, Phase 2: $20 billion over next 4-5 yrs.
Current & Expected Production Level	Max oil production from Chayvo field achieved in Feb. 2007 at 250 kb/d (in 8/2008 down to 185kb/d). Commercial gas prod'n expected in late 2008-early 2009	2007:12.4 mill bbl of crude; commercial oil and gas production is expected in Dec. 2008; LNG prod'n expected in early 2009 (LNG supplies to Japan will be more than 8 million ton/yr=8.5% of Japan's LNG imports and 83% of Sakhalin-2's total LNG production)
Target Markets & Consumers	Exxon prefers pipeline exports to China (as well as Japan and Korea). Other shareholders (and Gazprom) prefer piping to LNG terminal at Sakhalin II or to the domestic market in the Russian Far East (Khabarovsk Region).	LNG exports to Asia (Japan and Korea) and North American (including Mexican west coast) markets.
Status/Notes	Phase-1 Oil and gas production began in October 2005. Odoptu startup is delayed until 2011	Oil production began in 1999

Source: EIA, Project Homepages, Global Insight Country Report - Russia (2008).

As a part of the ongoing Sakhalin-2 project, the construction of the LNG terminal in southern Sakhalin (Prigorodnoye, Aniva Bay, Korsakov Region; total capacity 9.6 million ton per year) has been entering its final stage. The Japanese government is strongly supporting Japanese businesses' participation in Sakhalin-2 and the LNG-terminal construction project by providing financial support through loans issued by the Japanese Bank for International Cooperation (JBIC). According to the Sakhalin Energy's statement on June 16, 2008, JBIC along with a banking consortium of international (mainly Japanese) banks agreed to provide a $5.3-billion financial package. The funds will help financing the final stages of the project in preparation for LNG exports that are expected to begin in early to mid-2009.

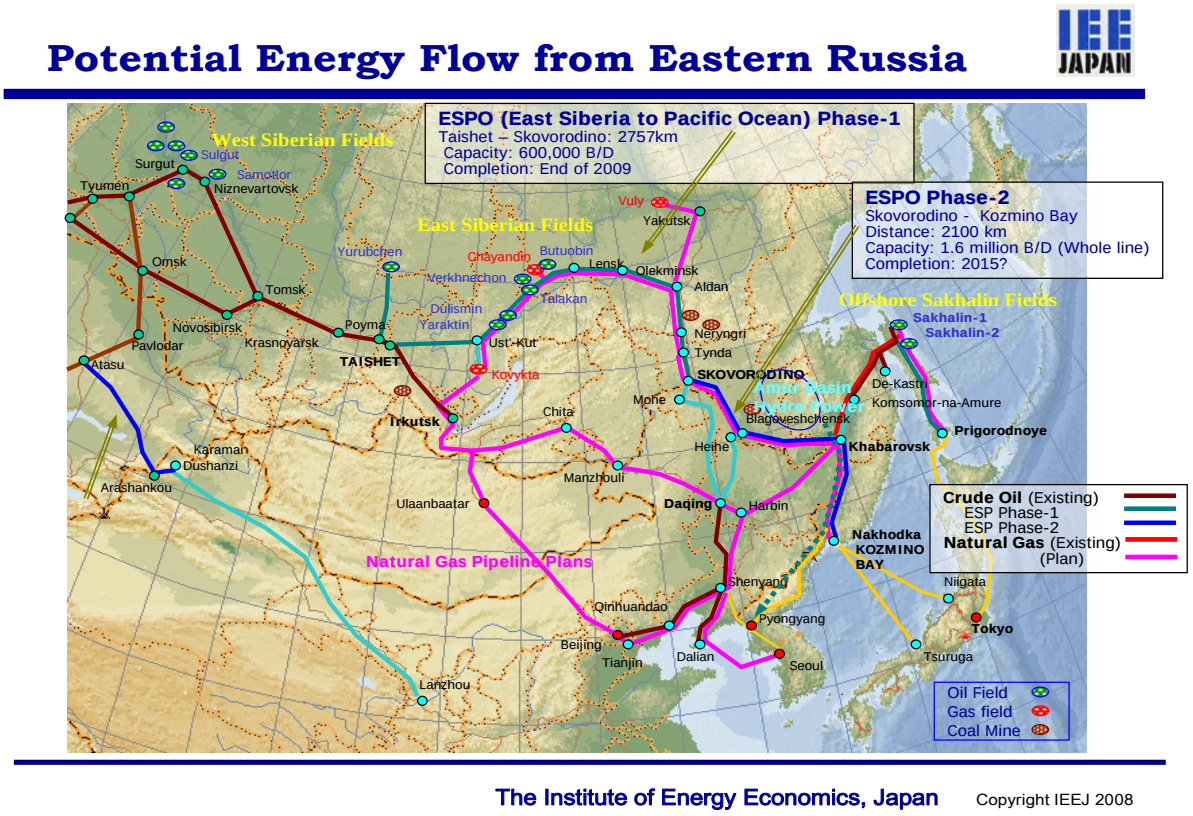
Another possible energy-related joint project involves the construction of a LNG facility near Vladivostok in Russia's Far East to deliver LNG from Sakhalin and Eastern Siberia to Japan and other Asian customers. The details of bilateral cooperation in this project will be discussed at the official meeting between Gazprom and METI in the end of 2008.

Additionally, Japanese companies are seeking to participate in Russia's LNG-related projects in the European part of Russia. One of such projects is the Shtokman project, which is currently led by Gazprom and includes the development of a giant gas field in the Barents Sea and the construction of a 7.5 million-ton-per-year LNG plant for the first 25-year phase of the project. First pipeline gas will be supplied to Europe and the domestic market (estimated to start in 2013); it will later be followed by the launch of LNG deliveries (mainly to North America) in 2014. For geographical and economic reasons, it will be unlikely that Japan would be importing LNG constrantly from this project. Nonetheless, in addition to business opportunities for shipment of LNG, the Japanese companies could also participate by supplying advanced technology for the construction of LNG plants as well as possibly acquiring a stake in this project.[3]

2-2. The ESPO pipeline and related projects

In addition to the Sakhalin projects discussed above, there are a number of prospective joint projects that focus on the development of energy resources in East Siberia and Russia's Far East. One of these projects concerns the proposed construction of the East- Siberian Pacific Oil Pipeline (hereafter ESPO P/L) and development of the related regional infrastructure.

[3] On September 1, 2005, Japanese companies Mitsui OSK Lines and Itochu of Japan signed a memorandum of understanding with Gazprom on shipment of LNG from the Shtokman project to the US and Western Europe (Kommersant News, September 23, 2005).



This large-scale project was broken into two construction phases. Phase 1, which focuses on the construction of the 2,757-km Taishet-Skovorodino branch to the Chinese border, is expected to be completed by the end of 2009 and would deliver about 600,000 barrels of oil per day. Notwithstanding major delays and concerns about for the rising costs and overall feasibility of the rest of the pipeline route, the Russian government has recently approved the construction plan for Phase 2 of the pipeline, which would connect Skovorodino with Russia's Pacific Coast (about 2,100 km). Upon its completion, the ESPO P/L capacity is expected to reach 1.6 million barrels per day, with crude exports to Japan and other countries from a sea terminal in Kozmino Bay (near Nakhodka City, Primorsky Krai). This project, which mainly targets Russia's East Asian customers, is also considered indispensable for the economic development of Russia's Far East.

Furthermore, in late April 2008, Japan's state-run Oil, Gas and Metals National Corporation (JOGMEG) obtained access to Russian oil supplies in Eastern Siberia by acquiring the rights to develop the Severo-Mogdinsky oil and gas block in Irkutsk Region (the block, which total area is 3,747 sq. km, is located 150 km south-east of the planned route for the ESPO P/L, Phase 2). The Japanese side reportedly agreed to explore and develop the acquired block together with Russia's Irkutsk Oil Company by jointly investing $95.8 million in this project[4]. Under the agreement, it would

[4] Following the Putin-Abe Summit in June 2007, the Irkutsk Oil Company and JOGMEG formed a 51:49 joint venture ("INK-Server" LTD) in order to launch joint development of the Severo-Mogdinsky oil and gas block.

provide latest technology, in particular for seismic studies, exploration and development of the block.

In addition, on September 1, 2008, JOGMEG and Russia's "United Oil Group Ltd" (UOG) signed a Joint Venture (JV) Agreement to implement projects in the sphere of oil and gas prospecting, exploration and production in Russian Federation. The priority areas for this JV (in which UOG will have 51% and JOGMEC 49%) will be Russia's Krasnoyarsk Territory, Irkutsk Region, and Sakha Republic (Yakutia). The parties expect to export produced oil through the East Siberia-Pacific Ocean Pipeline to Japan in the future.

In addition to the above upstream projects[5], Japan and Russia are also currently considering a number of joint projects for Eastern Siberian downstream sector development[6]. Japanese Ministry of Economics, Trade and Industries (METI) and Rosneft recently agreed to look into the construction of Rosneft's planned 400,000 barrels/day refinery near the seaport of Nakhodka, which is near the final destination of the planned ESPO pipeline. In addition, Gazprom is currently considering a number of projects to build several gas chemical facilities in Eastern Siberia to accompany the development of the area's gas resources.[7] These large-scale projects would most likely require multilateral participation of many foreign partners, including Japanese companies that have already shown interest in a joint project to build a gas chemical plant in the republic of Sakha (Yakutia) in Eastern Siberia. This project will utilize investment and technology potential of Japanese partners, while providing them with access to Russian downstream sector and other possible benefits of joint energy development of the gas resources in East Siberia.

3. Prospects for future Japan-Russia bilateral energy cooperation

The "Russian Energy Strategy to 2020" adopted by the Russian government on August 28, 2003, stressed the importance of energy cooperation with many foreign "economic partners," including Japan, which represent a lucrative export market for Russian crude oil, nuclear fuel, natural gas and LNG, as well as petrochemical products. In addition, President Medvedev in his recent speech indicated that Russia saw the Asia-Pacific market as one of the most attractive due to its booming demand, rising oil prices, and LNG opportunities.

In late March, 2008, Japanese government (METI's Agency for Natural Resources and Energy – ANRE) signed a memorandum of understanding with Rosneft, laying ground for the two parties' energy cooperation in various sectors. A similar agreement was concluded between ANRE and

[5] The upstream sector refers to the exploration and production (E&P) sector of energy operations. It involves the searching for and the recovery and production of crude oil and natural gas.

[6] Downstream sector refers to the refining of crude oil as well as the selling and distribution of natural gas and products derived from crude oil (such as liquified petroleum gas (LPG), gasoline or petrol, jet fuel, diesel oil, other fuel oils, asphalt and petroleum coke.)

[7] "Japan, Russia's Rosneft agree on energy cooperation," Reuters UK, March 21, 2008.

Gazprom in November 2005. In addition, on March 20, Japan's Toshiba Corporation entered into a joint agreement with Russia's state-owned Atomenergoprom to promote bilateral civilian nuclear energy projects. According to the Director General of Atomenergoprom Sergei Kiriyenko, Japanese-Russian energy cooperation in nuclear sector would be "beneficial not only to the employees of [the two] companies, but also to users of products and services related to nuclear cycle throughout the world."[8] The Toshiba press-release announced that the agreement would contribute to "stable and secure supply" of nuclear fuel cycle services in Japan, the USA, and elsewhere. Furthermore, it would also help strengthen the "complementary relations" that would "lead to the establishment of a bilateral strategic partnership." [9]

Growing Japan-Russia economic ties and energy cooperation has been a welcome development in the two countries' relations that have been historically tainted by their outstanding political problems. Today, the international circumstances as well as present political and economic situation in the two countries' relations seem to favor the feasibility of their energy cooperation. Unlike during the Cold-war ideology-driven past, the problems related to the acquisition of funds for project financing or technological assistance are no longer subject to political considerations. Although ideological tensions can no longer undermine Japanese-Russian cooperation, some political tensions (such as uneasy US-Russia relations and the unresolved territorial dispute with Japan) continue to cast a dark shadow on the two countries' economic relations, including their energy cooperation.

Furthermore, despite expanding their bilateral energy cooperation, Japan and Russia are yet to maximize and exploit the fruits of their full-fledged energy cooperation. The remaining problems and concerns may delay or put the feasibility of the proposed projects at risk. Therefore, in order to boost the chances for the realization of the above-mentioned bilateral energy projects, the following issues have to be addressed as effectively as possible:

- Short- to medium-term issues: declining crude oil output, prohibitive tax regime, lack of transparent business environment and effective regulatory regime in Russia; shortage of large-scale capital investment and other project financing problems; shortage of necessary technology and equipment as well as skilled labor force; difficult weather/climate conditions and great distances;

- Long-term issues: domestic and international political tensions; Japan's cautious business tactics in Russia (especially in the Far East and Eastern Siberia); rising cost estimates; energy market fluctuations – staggering demand and/or inefficient supply; etc.

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8 "Toshiba, AtomEnergoProm sign framework agreement," World Nuclear News, March 20, 2008.

9 Toshiba Corporation, Press-release, March 20, 2008, <http://www.toshiba.co.jp/about/press/2008_03/pr2001.htm.>

The search for the solutions of the aforementioned outstanding problems requires effective and timely issue-specific approaches introduced at the government level in Japan and Russia respectively. Furthermore, in order to overcome effectively these obstacles and minimize the associated risks, it is essential for the two countries' leaders, through their political will and determination, to continue their diplomatic dialogue. If they succeed in their efforts, there would be a greater chance for full-fledged and mutually beneficial Japanese-Russian cooperation.

Despite the problems and concerns, Japanese-Russian energy collaboration has a lot of potential based on a number of ongoing and prospective projects that require the two countries' expanded participation. Russia and Japan are among key powers and important players in the world's energy markets, especially in the Asia-Pacific region. The two countries' successful energy collaboration would not only serve their economic and energy needs, but would also improve their bilateral ties as a whole. Finally, it would greatly contribute to the strengthening of energy security and cooperation in the Asia-Pacific region.

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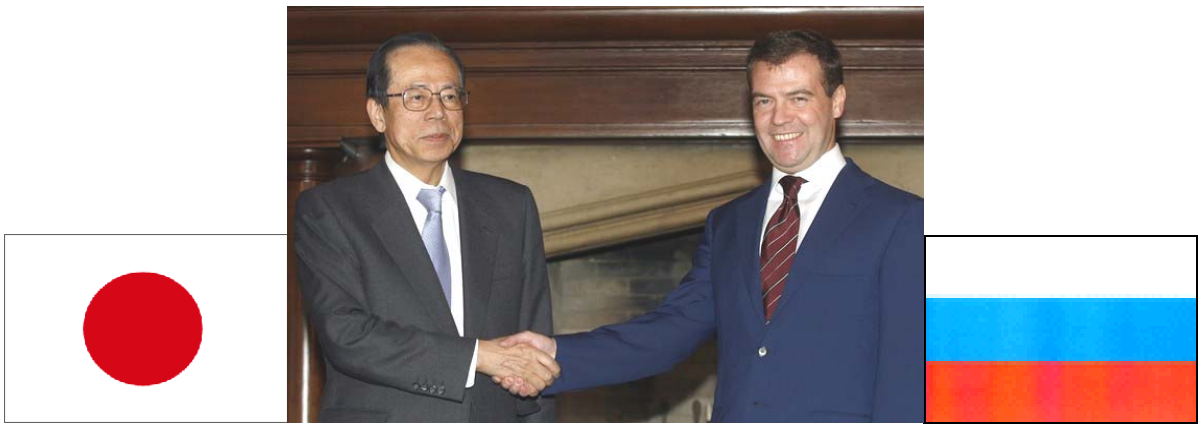

At G-8 Summit (Toyako, Hokkaido) on July 7-9, 2008:
then-Japanese PM Fukuda and Russian President Medvedev..

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Japanese-Russian Energy Cooperation: Problems and Perspectives

Rationale for Japanese-Russian Energy Cooperation

Japan:

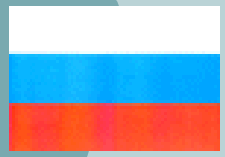
Virtually has no domestic oil or natural gas reserves (its energy sufficiency rate is 16%)

- World's third largest oil consumer (behind the United States and China; relies almost totally on imports to meet its consumption needs) and second largest net importer of oil
- One of the largest natural gas consumers and relies on imports for virtually all of its natural gas needs
- World's largest importer of liquefied natural gas (LNG) (apprx. 40% of world's LNG imports).

However,

Japan is also one of the major exporters of energy-sector capital equipment (Japanese companies provide engineering, construction, and project management services for energy projects around the world).

Russia:



One of the world's top energy producers and suppliers

- holds the world's largest natural gas reserves, the second largest coal reserves, and the eighth largest oil reserves.
- World's largest exporter of natural gas and the second largest oil exporter (Russia's economy is heavily dependent on oil and natural gas exports).

Given the geographical proximity, complementary economic needs, and desire to diversify their respective energy policies, the two countries should naturally seek to expand their energy relations with one another.

History of Japanese-Soviet Energy Cooperation

Detailed coverage of the early initiatives for bilateral energy cooperation:

- ***Energy Politics in Japanese-Soviet/Russian Relations: From Cooperation Initiatives in the 1970s to Cautious Engagement in 1990s***
  (PhD dissertation, Hosei University, Tokyo, March 2006);

- ***Energy Politics in Japanese-Soviet Relations in the 1970s: Complementarity and Conflict***
  (The Russian and Eastern European Studies, Annual Magazine of the Japanese Association for Russian and East European Studies-JAREES, Keio University, Vol. 35, March 2007).

Japan-USSR Join Energy Initiatives in the 1970s

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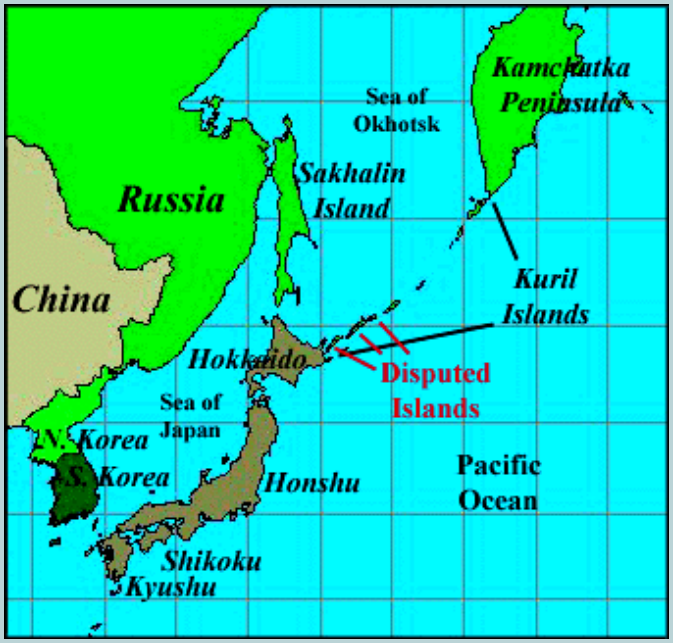
Japan-Soviet Joint Energy Initiatives in the 1970s: Lessons from the Past

Key reasons for the projects' failure:

1. Political and strategic tensions incited by the Cold War rivalry
2. Problems with project-financing
3. Lack of sufficient technology and equipment
4. Poorly developed infrastructure and difficult climate conditions in Eastern Siberia/Far East.

The Kuril Islands dispute:

Ongoing territorial dispute between Japan and USSR/Russia over the sovereignty of the southernmost Kuril Islands of Habomai, Shikotan, Etorofu（Iturup), and Kunashiri (Kunashir).



Overview of most recent developments in Japanese-Russian energy cooperation

In January 2003 then President Putin and then Prime Minister Koizumi adopted the **Russian-Japanese Action Plan for Joint Energy Cooperation**

- **Sakhalin-1 project:**
  - Japan's participation is 30% (SODECO); profitable project with growing oil and gas output; currently focusing on gas exports to RFE and China
- **Sakhalin-2 project:**
  - construction of the LNG terminal in southern Sakhalin (total capacity 9.6 million ton per year) ; Japan will receive between 60-80% of total LNG output
- **Other related projects:**
  - METI and Gazprom are discussing a possibility of a joint project for the construction of the LNG facility near Vladivostok
  - Japanese companies are showing interest to acquire stakes in Russia's LNG-related projects in the European part of Russia (Shtokman, the Barents Sea)

Sakhalin Projects

Name	Sakhalin I	Sakhalin II
Primary Project Developers	**US:** Exxon Neftegaz (30%), **Japan:** SODECO (30%), **India**: ONGC Videsh (20%), **Russia:** Sakhalinmorneftegaz (Rosneft-Sakhalinmorneftegaz Subsidiary, 11.5%), and RN Astra (Rosneft Subsidiary, 8.5%)	**Russia:** Gazprom (50%+), Sakhalin Energy Investment Company: Shell (27.5%), **Japan:** Mitsui (12.5%), Mitsubishi (10%)
Oil Reserve Estimate	2.1 billion barrels of oil and gas condensate	1 billion bbl
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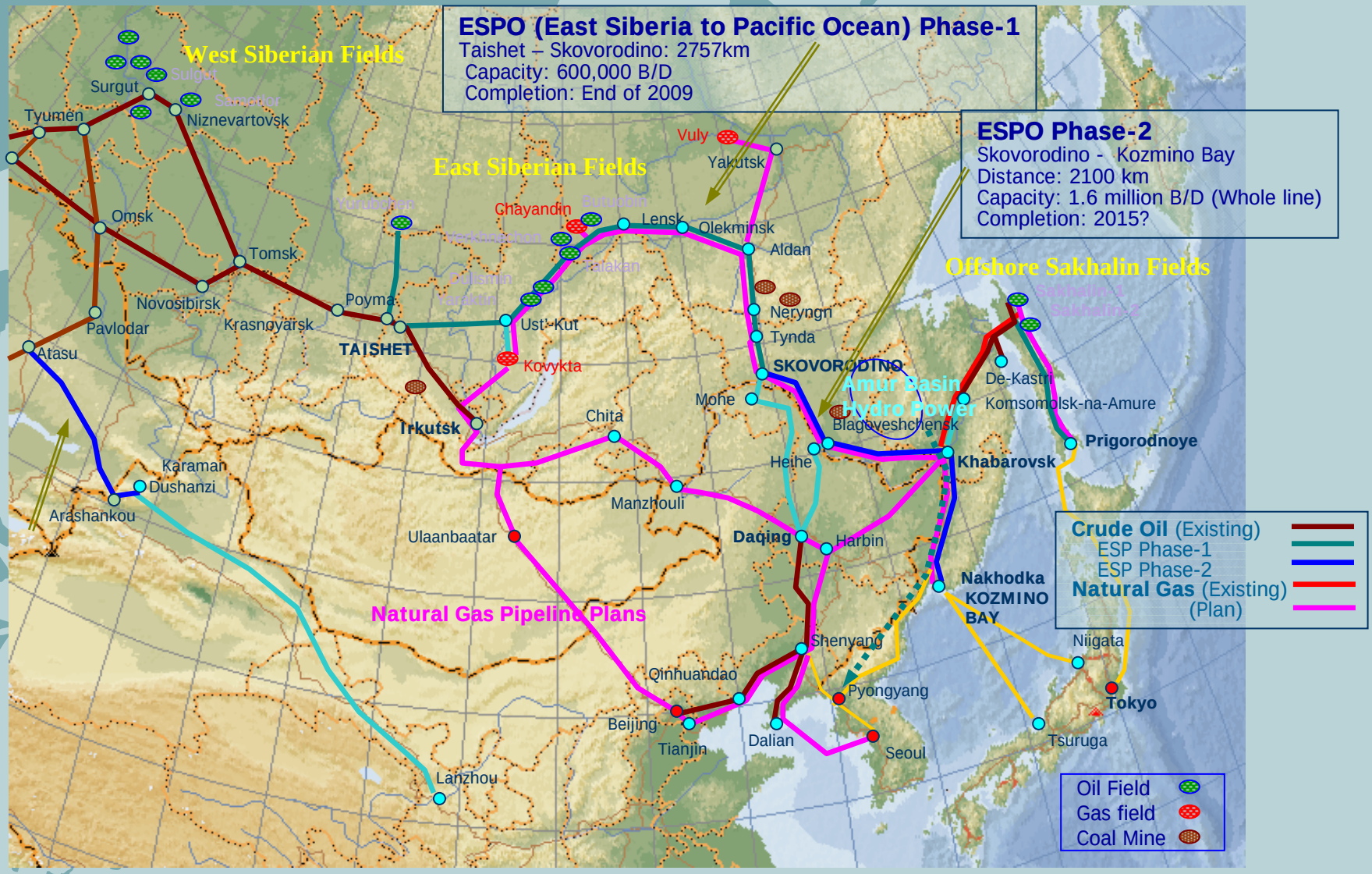
Status/Notes	Phase-1 Oil and gas production began in October 2005. Odoptu startup is delayed until 2011	Oil production began in 1999

Source: EIA, Project Homepages, Global Insight Country Report - Russia (2008).

ESPO Pipeline & Related Projects: Potential Energy Flow from RFE



Upstream and Downstream Bilateral Projects

UPSTREAM PROJECTS (Exploration & Production)

- June 2007: Japan's state-run Oil, Gas and Metals National Corporation (JOGMEG) and the Irkutsk Oil Company formed a joint venture ("INK-Server" LTD) to launch joint development of the Severo-Mogdinsky oil and gas block in Irkutsk Region.

  April 2008: JOGMEG acquired the license to develop the Severo-Mogdinsky oil and gas block.

- September 2008: JOGMEG and Russia's "United Oil Group Ltd" (UOG) signed a Joint Venture Agreement to implement projects for prospecting, exploration and production of oil, gas, and coal in Russia (particularly in the Krasnoyarsk Territory, the Irkutsk Region, and the Sakha Republic (Yakutia)).

  The parties expect to export produced oil through the East Siberia-Pacific Ocean Pipeline to Japan.

DOWNSTREAM PROJECTS (Refining & Selling):

- METI and Rosneft are in talks about a planned construction of Rosneft's refinery (close to the seaport of Nakhodka near the final destination of the planned ESPO pipeline)

- Gazprom is currently considering a number of joint projects to build several gas chemical facilities in Eastern Siberia

- Japanese companies are showing interest in a joint project to build a gas chemical plant in the republic of Sakha (Yakutia) in Eastern Siberia.

Severo – Mogdinsky Oil and Gas Block

Japan-Russia bilateral energy cooperation:
PROSPECTS and PERSPECTIVES

- Japan is one of the "lucrative export market for Russian crude oil, nuclear fuel, natural gas and LNG, as well as petrochemical products" ("Russian Energy Strategy to 2020," August 28, 2003)
- Growing Japan-Russia economic ties and energy cooperation has been a welcome development in the two countries' relations that have been historically tainted by their outstanding political problems, such as the Kuril territorial dispute.
- November 2005, Japanese government (METI's Agency for Natural Resources and Energy – ANRE) signed a memorandum of understanding (MOU) with Gazprom.
- In March 2008, ANRE signed a MOU with Rosneft, laying ground for the two parties' energy cooperation in various sectors.
- On March 20, 2008, Japan's Toshiba Corporation signed a framework agreement with Russia's state-owned Atomenergoprom to promote bilateral civilian nuclear energy projects.

Japan-Russia bilateral energy cooperation:
PROBLEMS and CHALLENGES

- Notwithstanding the expansion of their bilateral energy cooperation, Japan and Russia are yet to maximize and exploit the fruits of their full-fledged energy cooperation.

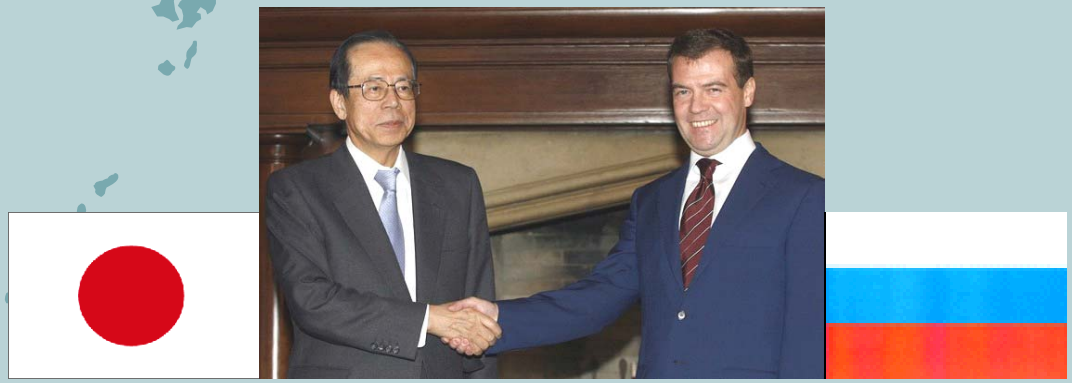
- To avoid possible delays or total derailment of the proposed joint projects, the following issues have to be addressed as effectively as possible:

  - Short- to medium-term risks: declining crude oil output, prohibitive tax regime, lack of transparent business environment and effective regulatory regime in Russia; shortage of large-scale capital investment and other project financing problems; shortage of necessary technology and equipment as well as skilled labor force; difficult weather/climate conditions and great distances;

  - Long-term risks: domestic and international political tensions; Japan's cautious business tactics in Russia (especially in the Far East and Eastern Siberia); rising cost estimates; energy market fluctuations – staggering demand and/or inefficient supply; etc.

Benefits of Improved Japan-Russia Energy Cooperation

- Russia and Japan are among key powers (both are G-8 countries) and important players in the world's energy markets, especially in the Asia-Pacific region.
- Japanese-Russian energy collaboration has a lot of potential based on a number of ongoing and prospective projects.
- The two countries' leaders should aim to combine their efforts to overcome effectively the above-mentioned obstacles and minimize the associated risks.
- The two countries' successful energy collaboration would not only serve their economic and energy needs, but would also improve their bilateral ties as a whole.
- Japanese-Russian successful energy cooperation would also greatly contribute to the strengthening of energy security and cooperation in the Asia-Pacific region.



At G-8 Summit (Toyako, Hokkaido) on July 7-9, 2008:
then-Japanese PM Fukuda and Russian President Medvedev..

IEEJ: 2008年11月

HP: http://eneken.ieej.or.jp/en/index.html

財団法人 日本エネルギー経済研究所
The Institute of Energy Economics, Japan

The Institute of Energy Economics, Japan (IEEJ)

Establishment:
Headquarters: September 10, 1966
The Oil Information Center: August 10, 1981
The Energy Data and Modeling Center: October 1, 1984
The Asia Pacific Energy Research Centre: July 1, 1996
The Green Energy Certification Center: April 1, 2008

- IEEJ was certified as an incorporated foundation by the MITI (now METI) in 1966.
- The aim of the institute's establishment was to carry on research activities specialized in the area of energy from the viewpoint of the national economy as a whole in a bid to contribute to sound development of the Japanese energy-supplying and energy-consuming industries.
- IEEJ has recently expanded its scope of research activities to include such topics as environmental problems and international cooperation closely related to energy.
- IEEJ aspires to become the leading voice in Japanese and Asian energy-related issues and global environmental subjects.

IEEJ: International Cooperation

International energy cooperation is absolutely essential for resource-poor Japan.

- IEEJ actively promotes international cooperation through research on international energy cooperation and assistance projects targeted at developing countries, and participation in seminars and symposiums held abroad.
- IEEJ is also developing its research network by strengthening alliances with research institutions in Japan and abroad.

Samples of Special Joint Initiatives and Projects:

- Asia/World Energy Outlook (since 2004)
- Cooperation with China and India on their Rapidly Rising Energy Demand
- Japan-China Joint Research on Energy Conservation Policy
- Trends and outlook for the natural gas supply/demand balance in Asia and the world, etc.

IEEJ Alliance Partners:

- James A. Baker III Institute for Public Policy, Rice University, U.S.
- Tata Energy Research Institute (TERI), India
- Oxford Institute for Energy Studies, U.K.
- Royal Institute of International Affairs, U.K.
- The Centre for Energy, Petroleum and Mineral Law and Policy, University of Dundee, U.K.
- OPEC Secretariat
- Center for Energy and Environmental Policy Research, Massachusetts Institute of Technology, U.S.
- Korea Institute of Energy Research, ROK
- Energy Research Institute（ERI）, National Development and Reform Commission, China
- International Energy Agency（IEA）
- Petroleum Economics & Technology Research Center, CNPC, China
- Gulf Research Center (GRC), U.A.E.
- Center for Strategic Studies (CSR), Iran
- The Center for Energy-Environment Research & Development (CEERD), Asian Institute of Technology, Thailand
- Korea Gas Corporation(KOGAS), Korea
- State Power Economic Research Institute, SGCC, China
- China Petroleum & Chemical Corporation (SINOPEC), China
- Central Research Institute of Electric Power Industry, Japan

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