



**Sustainable Development Programme**

## **Russia's Oil and Gas Exports to North-East Asia**

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**REPORT**

**April 2005**

Sustainable Development Programme

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## Summary

Rapid population and industry growth in North-East Asia has turned the attention of regional governments towards Russia as a crucial source of fuel. Resource, demand and capability are all in place but political posturing and fear on all sides continue to obstruct cooperation. Part I of this paper considers the key political, economic and commercial issues. It outlines the broad trends in regional energy relations and assesses the potential for multilateral cooperation. Part II covers recent developments in Russia's pipeline projects, their implications for North-East Asian consumers and the significance of increasing state control over Russia's energy market.

## Background

Russia had little or no access to N.E. Asia's lucrative energy markets due to the lack of infrastructure in East Siberia and the Russian Far East (RFE). With China's consumption set to double by 2020 and insecurity in the Middle East, the diversification of energy sources is now the priority of energy policy in China, South Korea and Japan<sup>1</sup>. Their gargantuan neighbour to the west has both ample oil and gas reserves and the state and private companies ready to implement major pipeline projects. However, due to historical rivalries and a lack of diplomatic initiatives, the states involved have been unable to reach a satisfactory agreement. A gap of understanding in terms of one another's priorities, motives and long-term foreign policy behaviour has proved a major obstacle to negotiations.<sup>2</sup>

## Part I

### Politics vs. Economics: What is driving Russia's export strategies?

There is consensus among government and the private sector that the time is ripe for developing East Siberian hydrocarbon resources to target the N.E. Asian markets. Russia's Energy Strategy 2020, approved in August 2003 by the Russian Government, envisages a tripling of energy production capacity in the Asian part of the Russian Federation by 2020. Energy 2020's target is to secure 30% of the Asia-Pacific oil market and 15% of the natural gas market by 2020. Just how these ambitions will be realised remains a contested issue.

The Chinese government has been pushing for an export route from the existing oil pipeline at Angarsk in the RFE to Daqing in western China to be built first (Yukos was unable to implement an agreement signed in 2003) but Kremlin energy planners are wary of China exploiting its position as a monopoly customer, twice shy from their experience with the Bluestream pipeline to Turkey (in 2002, Turkey was able to demand price and volume reductions in Russian gas). This sentiment is echoed across the Russian political spectrum. In addition, now that former Yukos Director, Mikhail Khodorkovsky is in prison, there is no one inside Russia to lobby for this project.

The Japanese and South Korean governments, meanwhile, favour the Taishet-Nakhodka route, which would open up supply routes to the whole N.E. Asian region and beyond. Although this is the Russian favourite at present, the logistics are difficult and it could take over a decade to realize. Russia had originally planned to build a pipeline to Nakhodka with a branch off to Daqing (see Box 1). Energy analysts have warned that this would not be a practical first step towards solving the export problem as such a system would involve complex fiscal arrangements and

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<sup>1</sup> According to a study by the Institute of Energy Economics of Japan's (IEEJ), by 2020, oil demand in North-East Asia will increase to 982 mtoe (20 mb/d) with net oil imports surging to 834 mtoe (16 mb/d). The rate of imported oil in North-East Asia will hit more than 80% by 2020. If oil imports from Siberian fields (in quantities totalling about 100 mtoe) materialise, the dependence level on Middle Eastern oil in North-East Asia could decrease by about 10%. We should also note that in the next decade, Japan has to reduce its annual carbon emissions by 6% from 1990 levels between 2008 and 2012 whereas China and Korea will increase their oil and gas consumption.

<sup>2</sup> In response to this, Chatham House launched a project on Russia's oil and gas exports to North-East Asia in 2004, with the aim of exploring potential solutions to the current impasse and facilitating producer-consumer dialogue.

there is no multilateral framework for contracts. However, Russia's actions cannot be predicted from a rational-actor perspective. The traditional soviet Russian preference for gigantism – projects of massive scale over a long duration – lives on in Russia so it will not necessarily adopt a competitive model. Although the Nakhodka option would be very expensive, Russia would gain greater global leverage because of its flexibility.

Chinese energy planners are concerned about a US allied power like Japan gaining priority of supply. There have been reciprocal visits between Russian and Chinese officials as each has sought to reassure the other of its intentions but while Putin will say officially that the pipeline to Daqing will be built, in the medium term, rail and road transportation of oil is far more likely.

#### **Box 1**

##### **Pipeline routes**

For the last decade, two main options for oil and gas pipeline routes from Russia to North-East Asia have been deliberated. The cheaper and logistically simpler runs from Angarsk to Daqing in Northern China; the other would take a longer route to the Russian Pacific seaport of Nakhodka, opening up to the entire Asia-Pacific market. In the longer term, the Kovykta pipeline (see map) is planned to take gas to China and South Korea although the most competitive price option lies in the Mongolian route, ruled out by the Chinese authorities in Summer 2002.

Timeline:

- **March 2003:** The Russian government approved the project to build the Angarsk-Nakhodka pipeline branching off to Daqing and thus serving all parties. But the Ministry of Natural Resources rejected both suggested routes due to ecological objections. This is largely thought to have been an attempt to buy more time rather than any real environmental concern.
- **June 2003:** Gazprom CEO announces the blue print for Russia's gas export to Asia in the form of the Unified Gas Supply System (UGSS), at the 22<sup>nd</sup> World Gas Conference in Tokyo.
- **June 2004:** Transneft made a briefing on the 4,200 km, 80mt delivery capacity pipeline routing from Taishet to the Bay of Perevoznaya via Kazachinskoye, Skovorodino and Khabarovsk. 24mt of the pipeline's oil will come from Western Siberia and the remaining 56 mt from East Siberia and Yakutia. The pipeline development cost was estimated at US\$ 16.2 billion. There is still a question-mark over whether a branch will extend to Daqing or employ the partial use of railroad transport.
- **Summer 2004:** Gazexport, a wholly-owned Gazprom subsidiary, secured its position as a sole coordinator of Russia's gas exports to Asia. Gazprom's hydrocarbon reserves increase to over 100billion boe (barrels of oil equivalent).
- **December 31 2004:** The Russian Government announced that a trunk crude oil pipeline with an annual capacity of 80 mt would be built from Taishet in east Siberia to Perevoznaya near the port of Nakhodka.

Due to the balance of resources and state interests, an agreement should be forthcoming, but practical concerns of supply and demand will remain complicated by political manoeuvring. The lack of transparency in the political intentions of the states involved and long delays in the decision on pipeline routes have frustrated both state and private companies.

While Russia wishes to secure a place in the Asian market before China, Japan and South Korea become even more hooked on Middle East oil and gas, it has no clearly formulated strategy. Caution and fear of losing control appeared to be at the root of Russian procrastination.

#### **A window of opportunity for Russia**

More than 90% of South Korea's energy presently comes from the Middle East. One of the natural consequences of a high oil price is that alternatives become more attractive and South Korea will change its behaviour of energy consumption dramatically (if the oil price rises by US\$1, South Korean imports increase by US\$ 1bn). In the long term, this will turn the industry structure in South Korea towards the IT sector and lessen reliance on heavy industry. The Chinese have already signed agreements with Australia, Indonesia and the Middle East to supply oil and gas and are planning to import from Central Asia. The oil pipeline from Kazakhstan will be completed

by the end of 2005, opening the door for a parallel natural gas pipeline from Kazakhstan to China, with a delivery capacity of 20-30 bcm/y. Meanwhile, Japan has promised to cut emissions by 60% in the next decade and is working on new technology (like fuel cells) to make it less dependent on imports.

These demand trends point to a time-limited market opportunity for Russian oil and gas exports. If a commitment is not forthcoming, Russia risks China, Japan and South Korea finding alternative suppliers.

The decision on pipelines is even more urgent in view of Russia's desire to secure a N. E. Asian market for its gas. By 2020, China's gas consumption is projected to increase 5-fold and South Korea's will double. Russia has a window of opportunity in which to introduce pipeline gas before LNG, which is competitive in comparison, gains a foothold in the Chinese market and extend its dominance in N.E. Asia. With the opening up of the gas markets in Japan and South Korea from 2009-11, moving quickly on the Kovykta gas project will be the only way for Russia to meet this demand. Oil is China's primary interest while South Korea's is natural gas so sequencing is also a key issue.

The main problem for companies involved appears to be the need to phase oil and gas pipelines. There is still no infrastructure and before the fall of its former CEO Mikhail Khodorkovsky, Yukos was the only company with both the assets and the integration ability. Rosneft's acquisition of the Yukos production asset, Yuganskneftegaz, could slow down the implementation of parallel pipeline development as the bureaucratic processes and lack of clear lines of accounting associated with the state-run energy companies leads to and falling levels of production. The other problem is the massive investment required, estimated to be around \$40-55 bn for exploration and \$15-20 bn for production infrastructure.<sup>3</sup>

#### **Private vs. State initiative: How can their interests be reconciled?**

In the light of the September 2004 announcement of a Gazprom-Rosneft merger, attention is focused on Russian energy market trends and how they will affect private companies' interests, investment and the prospects for supply to North-East Asia.

Seeking to maximize their own profit, elites running the Russian oil and gas sector have shown increasing reluctance to allow foreign parties to acquire stakes in Russian resources. Chinese investment in Russian assets has been especially discouraged. When Slavneft went up for auction in late December 2002, China National Petroleum Corporation (CNPC) was ready to pay US\$3 billion in cash for three quarters of the Slavneft asset, but CNPC's entry was blocked and eventually the asset was sold to Sibneft at a much discounted price. Meanwhile, the Chinese (majority state-owned) company, Sinopec, has already secured a beachhead in the Saudi gas business and is looking to Kazakhstan as another source of oil and gas supply to West China.

A process of economic reform and changes in the fiscal system mean that many sectors are now open for investment. But the opposite trend has become apparent in the energy sector. The redistribution of property since Putin came to power and the increasing influence of the so-called St Petersburg Chekist Group lead some to believe that the government aims to create one big state-controlled conglomerate ("Gosneftegaz") composed of Gazprom, Rosneft, Surgutneftegaz, Lukoil, Yukos and Sibneft. According to this view, the mega-company will have emerged by 2008, before the next Russian presidential election, with Mr. Putin as its head. Investors will be minority parties, apart from TNK-BP, which is already a big player in Russia.

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<sup>3</sup> According to BP Marketing, Russia must attract about \$50bn in investment for gas pipelines from Sakhalin to Japan and from Eastern Siberia to China and South Korea (RIA-Novosti, 08/03/05).

In this case, the heavy role of the Russian state may reduce the ability of the market by choosing the wrong company and stifling competition. Moreover, the Russian model with its larger state-controlled companies doesn't fit with the deregulated Asian market and smaller private enterprises.

Entrenched interests in favour of the state oil and gas companies, Transneft and Gazprom have already proved an obstacle to the level playing field for a disparate private sector. Some Russian commentators have suggested that Transneft lacks direction from Government and has its own bureaucratic interests, deriving most power from export bubble access to markets. At present, Gazprom accounts for 20 % of the world's gas production and 90 % of Russian domestic gas production. While Putin's drive to open up the Russian economy suggested that the state would remain a minority player and Gazprom's share of production would be reduced, the company itself represents a myriad of powerful Russian interests reluctant to relinquish control to outsiders. The Russian government has consistently put off efforts to restructure the gas market in a more equitable and transparent way for private investors (even the minor reforms envisaged by the Ministry for Economic Development and Trade in 2001).

With regard to the development of Eastern Siberia gas reserves, Gazprom will be both government-appointed coordinator and developer – so knowledge of its orientation is key to potential and existing investors. As a state company, its actions do not necessarily follow a purely commercial logic. Going downstream and expanding its presence in Europe are Gazprom's current priorities and the potential in China, South Korea and Japan will be mid-term strategy.

Increasing its stake in Gazprom from 38% to 51% through the Rosneft merger will ensure state dominance over the sector. Gazprom has been keen to show that private bidders will be welcome and a positive-sum situation sought but in early 2005, Russia's Natural Resources Minister, Yuri Trutnev, announced Russia's decision to bar foreign-controlled companies from taking part in tenders to develop major oil and metals resources. This rules out CNPC's bid for the Chayandinskoye field and ExxonMobil's plan for the Sakhalin-3 oil and gas field. Surgutneftegaz, TNK-BP and Gazprom are the likely frontrunners for East Siberian fields. The companies that will be allowed to take part in the tenders must have no less than 51% Russian ownership<sup>4</sup>. These moves have worried private companies whose existing rights to development may be revoked by the Russian government.

Sakhalin Island appears to be an exception, likely to play a significant role in the economies of all three N.E. Asian countries in the future. Sakhalin Island's administration has welcomed to private initiative. It has so far signed 4 contracts for long term LNG supply to the Japanese utility companies and in February 2005. In February, Kogas was awarded 1.5 mt/y of LNG supply for 20 years from Sakhalin 2.

### **A framework for decision-making**

On the question of what role governments should play in securing these long-term contracts, a chicken and egg problem has arisen. Private companies want to see intergovernmental agreements that will provide an umbrella framework for contracts rather than a government that sets signs and seals the contracts itself. With no institutional basis for multilateral cooperation between Russia, South Korea, China and Japan, each with fundamentally different strategic aims, it is difficult to envisage progress on this front.

Chatham House discussions on the optimum process and appropriate division of responsibility between state and private companies concluded that decisions should be made in parallel: at intergovernmental level and at the level of the companies who operate in these countries, including transnational companies. For this to happen, the format for negotiations should be

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<sup>4</sup> 18/2/05 Moscow News.

changed. One possible way forward is via multilateral forums focussing on the various complimentary interests of producer and consumers.

### **Multilateral Cooperation**

The issue of multilateral cooperation has been on the table for some time now but apart from South Korea, which strongly advocated the establishment of the N.E. Asian Energy Charter Treaty, governments in the region have shown little interest. China and Japan favour bilateral relations with the Russia as both worry that any new framework for multilateral cooperation could override their interests protected by existing structures. Russia is determined to become an Asian energy power yet minimize its vulnerability. Russian state companies are also reluctant for Russia to participate in multilateral relations, believing that the consumer countries will pressure them on import pricing and timing. However, bilateral alliances will ultimately undermine the regional market, so the question is how to formulate a balance of interests in any new treaty that will look favourable to all stakeholders.

There are certainly drivers for more cooperation amongst North-East Asian states to secure alternatives to Middle East oil and gas. On security of transportation, China does not want to be controlled by the oil price setting of OPEC and the Malacca Straits is a risk-laden supply route from the Middle East. Japan, meanwhile, is having its own problems securing supply. As Iran falters in its compliance with UN International Atomic Energy Agency (IAEA) regulations, the US puts pressure on Japan to back out of contracts. On the Russian side, the capital required is immense so it only fair that investors should share the *cost* as well as the *risk*.

### **Common ground**

China is eager to dispel the idea that it is a danger to Russia and there are many areas of cooperation with Japan, for example, to extend the supply capability in energy by stabilizing a good oil price and oil transportation and resolving the oil price premium.

A multilateral institutional framework established by the four governments would provide a basis for the strong legal framework necessary for successful financing and implementation of projects. Recommendations from a Chatham House expert workshop were:

- Japanese and Chinese companies could engage in joint exploration ventures with Russian companies for oil in East Siberia
- South Korean companies could cooperate in exploration for LNG, co-operation in human resource management and technology.
- A regional energy treaty which setting out terms for engagement and cooperation.

## **Part II: Recent developments and implications**

### **A decision on the pipeline route**

The long-awaited announcement at the end of 2004 that the Taishet-Perevoznaya (Nakhodka) crude oil pipeline would be built is by no means the final word. As yet, no detail is available on important questions - such as availability of financing from Japan, the time-table of for the project's development, a possible pipeline branching off from Skovorodino to Heilongjiang Province in China, and the trunk crude oil pipeline's links with Gazprom's Unified Gas Supply System (UGSS).

One day ahead of this announcement, Russia's Industry and Energy Minister Viktor Khristenko said that Russia could auction up to 20 percent of Yuganskneftegaz which produces one million barrels per day and contains 17% of Russia's oil reserves. Initially, the Russian authorities had no intention of allocating such a sizeable equity in its oil production assets to foreign parties, but the Deputy PM then offered this 20% equity to China. This suggests that Russia had difficulty in

securing the multi-billion dollar loan from the financial sector and contrary to earlier signals, is ready to accept the entry of Chinese energy firms to Russia's upstream sector.

However, contrary to media speculation, China declined this offer and instead struck a deal with Russia to secure crude supplies up to 2010 with a \$6billion loan. Some believe this helped to finance Rosneft's payment to acquire the Yukos production asset in January 2005<sup>5</sup>. Russia is clearly willing to secure a long-term energy supply relationship with China but remains cautious over commitment to a pipeline route.

It remains to be seen how Transneft's approach (see box 1) would be reflected in the 4,100 km long distance crude oil development scheme that has to be submitted before May 1, 2005. Transneft indicated the development could be phased and priority given to the construction of the 2,400-km Taishet-Skovorodino pipeline, with a tributary to the Chinese border, and a rail station in Skovorodino (on the Russian-Chinese border above the northern tip of Heilongjiang province). Later, as East Siberia's reserves are developed, a terminal in Perevoznaya and a rail and pipeline link between Skovorodino and Perevoznaya could be built (Perevoznaya, which is not in the map, is very close to Vladivostok).

This gradual approach is in line with the Russian authorities' preference for an increased role for railway export of oil to China. In late November 2004, the Financial Times reported that Russian and Chinese railway authorities had agreed to work together to guarantee that Russia would be able to ship at least 10mt of oil in 2005 and at least 15mt in 2006. Russian railway chief, Gennady Fadeyev, said Russia's railway monopoly would consider cutting shipping costs if the export volume reaches to 30 mt/y.

The construction of a 4,000km crude oil pipeline to the port of Nakhodka will usher in a new era for energy trading in the NE Asian region. It has a dual purpose: to accelerate development in the economically lagging RFE and provide a sizeable oil and gas supply source for the NE Asian region.

A compromise on the natural gas pipeline route would then open the door for parallel crude oil and natural gas pipeline development, guaranteeing Russia a coveted place in NE Asia's oil and gas market. The ideal way to promote this parallel structure is to combine the 1<sup>st</sup> stage of Transneft's crude oil pipeline plan with the Kovykta gas pipeline development. Transneft will construct a 2,400km pipeline between Taishet and Skovorodino, which means that Kovykta gas can be routed along a parallel gas pipeline to Skovorodino. This is in line with Russia's Energy Strategy 2020. From here, Kovykta gas could go through a direct pipeline to Heilongjiang province and be extended to South Korea via the Yellow Sea.

If this supply route is opened up during the period of 2010-2012, there is a real possibility that a tributary line can be constructed to supply the pipeline gas to North Korea, if the nuclear crisis is settled in a mutually acceptable manner.

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<sup>5</sup> Stella Farrington, "Layers of Intrigue: China's \$6bn prepayment for Russian oil", *Energy Risk*, February 2005.

## Map of RFE pipeline routes



## Financing

Russia will expect finance for whichever mega-project it decides on but needs first to reassure foreign investors reluctant to commit in such an uncertain climate. Japan had lobbied hard to promote the Nakhodka route and both Japanese and Chinese governments have offered multi-billion dollar investment packages for the respective schemes. However, it now appears that with Moscow on the verge of confirming the Nakhodka route, the Japanese may refuse to finance it due to deteriorating diplomatic relations with Russia. Japanese private companies are refusing to take any risk with regard to the pipeline development in this context.

It is worth noting that the Russian Ministry of Economic Development and Trade (MEDT) and Ministry of Natural Resources have objected to appropriation of federal budget money for construction of the Taishet-Pacific Ocean crude oil pipeline. The MEDT would like to see that part of the construction bill covered by the companies planning to move oil through the pipeline. Moreover, the Ministry of Industry and Energy fears that the companies might eventually claim the ownership of the pipeline.

In this situation, the fate of the pipeline may rest on financing from Japan. However, Transneft is determined to minimize the risk of delay in construction caused by financing. It understands that Japan's financial commitment could be conditioned by territorial disputes over the Northern Territories/Kurile Islands and regards the gradual self-financing approach as the most pragmatic way to develop the long-distance pipeline. Gazprom is drawing a very different picture. The state gas giant wants to draw up a unified gas export system first and find financing second.



## The impact of Russia's centralization

The driving force of Russia's approach to exporting oil and gas to Asia is the return of centralism after the regionalism that prevailed in the 1990s. Putin reversed Boris Yeltsin's policy of granting maximum autonomy to the country's 89 regional governors. In his first term, Putin assumed the authority to dismiss governors under suspicion of breaking the law, to ban them from sitting on the Federation Council and to appoint seven presidential plenipotentiaries across the country to supervise their work. Then, in September 2004, Putin announced that he would end the direct election of regional governors. Over the last few years, he has also appointed his confidantes as the key players of state-owned oil and gas companies (see Box 2).

### Box 2

#### Putin's domination of the oil and gas sector

- 2001: Alexei Miller, President Putin's close ally from St. Petersburg appointed Gazprom's CEO. (At that time, Mr. Miller was unknown deputy minister of Ministry of Energy)
- 2002: Dmitry Medvedev (from St. Petersburg), head of the Presidential Administration and a close friend of Putin appointed non-executive chairman of Gazprom
- 2003: Alexander Voloshin, Mr. Medvedev's predecessor in the Kremlin resigned and re-appointed as non-executive chairman of UES, the state controlled electricity monopoly
- 2004: Igor Sechin (also from St. Petersburg), deputy head of the Putin Administration appointed head of board at Rosneft
- Vladislav Surkov, a deputy head of the presidential administration named to the board of Transnefteprodukt

Summing up this new level of centralised state control Andrei Illarionov, the Kremlin's economic adviser was quoted as saying: "The school of thought that natural resources are a very special commodity is spreading very fast. In the 1990s it was widely believed that natural resources could be privately owned and therefore private companies were accumulating reserves. But over the past several years, a near-consensus has emerged that natural resources should belong to the state – not to private citizens and private companies but the state. This is now very clearly understood and that's why any decision by foreign investors to acquire natural resources is expected to be discussed with the state"<sup>6</sup>.

In spite of this trend, the Russian market could yet go either way. The development of E. Siberia, which is likely to go up for auction in 2005<sup>7</sup>, goes against Russia's desire to keep control of the oil and gas industry, suggesting a trade off between the government's desire to maintain control and its need to raise output through foreign investment. However, if the trend of re-statization continues, the sector will become much less dynamic, its transactions more opaque.

While revitalised development plans suggest Russia's willingness and ability to meet North-East Asian demand, bilateral deals and private sector insecurity look likely disrupt the flow of both oil and finance in the coming years. When the Kremlin announces a detailed scheme for both crude oil and natural gas pipelines in the first half of 2005, it will reveal where Russia's true intentions lie.

<sup>6</sup> *Financial Times*, 19/10/04.

<sup>7</sup> The Russian Government very recently decided to exclude western energy firms from the forthcoming auction.

## In Summary:

- Now is a pivotal time to move forward with RFE oil and gas projects – markets and buyers are ready but managing relations and reaching agreements over routes and financing is still hampered by lack of political commitment.
- The lack of both integrated strategy and policy on the Russian side has caused delays that have encouraged Chinese and other NE Asian companies to invest elsewhere to secure oil and gas supplies.
- The lack of dialogue and streamlining of policies amongst NE Asian consumers constricts their potential for reaching a mutually beneficial settlement and increases the leverage of Russian state companies.
- Orchestrating demand and supply is the big gatekeeper to progress on these projects. Timely sequencing of oil and gas pipelines would provide Russia with a lucrative place in NE Asia's gas market.
- The nature of the Russian energy market continues to be unpredictable. The trend appears to be towards increasing state centralization and monopolization of resources.
- Bilateral government-to-government relations are and will continue to be the favoured format without major efforts from all sides to engage in multilateral dialogue.