Analysis

All Quiet on the Eastern Front…

By Nina Poussenkova, Moscow

Abstract

A priority of Russia's energy policy is to diversify oil and gas exports, which are currently focused on the stagnating European markets, by entering the Asian energy market and accessing consumers as far away as the US. Since the fields of West Siberia are all mature and declining, Russia needs to develop new oil and gas fields in East Siberia and the Far East, which are located closer to potential customers in Asia. The imperative to "turn east" is also determined by Russia's urge to revitalize its eastern territories and is thus in line with a broader national security agenda to develop a region which was long neglected. Geopolitically, Russia needs to build new relations with China, India and other countries of the Asia-Pacific region (APR). Therefore, an eastern energy strategy will have to cope with a tangled web of economic, social, political and geopolitical considerations.

Eastern Oildorado

East Siberia and the Far East have 13.5 percent of Russia's total initial oil reserves and 19 percent of gas reserves. Resource estimates for East Siberia and the Far East vary between 15 billion and 22 billion tons of oil and 35 thousand cubic meters (tcm) and 61 tcm of gas. The lion's share is located in remote Arctic regions and will not be in demand for 20-30 years. Russia's east is poorly explored: the average density of drilling there is 2 meters of deep wells per 1 sq km, while the Russian average is 23 meters per 1 sq km. Since all discoveries were made in the pre-1991 socialist era, modern prospecting technologies might identify many more reserves. For example, Petromir booked the major Angaro-Lensk gas field in the Irkutsk Region in 2007.

Production estimates vary enormously. The *Energy Strategy of Russia up to 2020* forecasts 3 million tons/year (mt/yr) of crude under a critical scenario by 2020, and 80 mt/yr under an optimistic scenario. Given their enormous range, these predictions seem closer to educated guesses than data-based conclusions.

This issue has political connotations, since competing governmental agencies offer different views. The Ministry of Natural Resources is optimistic, anticipating production of 30 mt/yr of oil and 50 bcm of gas in the nearest future, while railroad representatives doubt that crude output in East Siberia will increase from the current 0.5 to 30 mt by 2011. Their skepticism is determined by a desire to promote oil deliveries to China by rail rather than through new pipelines.

Oil in East Siberia is sweet and light and could be sold at a higher price than the traditional Urals export blend. Additionally, major eastern gas fields contain valuable products for the gas chemical industry. Despite these attractions, oil and gas exploration and production in this greenfield province will be very expensive because of harsh climatic conditions, difficult geology and lack of infrastructure.

Russian academician Alexei Kontorovich from the Siberian Branch of the Russian Academy of Sciences estimates that developing east Siberian oil will require an investment of $87 billion. When expenditures for creating social infrastructure and general-purpose industrial facilities are factored in, the sums become awe-inspiring. The government intends to shift the financial burden of creating the eastern petroleum industry onto the companies, and, despite the windfall oil revenues that Russia enjoys today, its domestic funds might not be enough.

Though financially the eastern petroleum project seems too challenging, it is not a purely commercial endeavor since it has serious political implications. The problems that the region faces jeopardize Russia's security, and they stem both from the socialist legacy and the turbulent transition period.

Territory of our Discontent

East Siberia and the Far East are plagued by economic and social problems, including slow growth, the obsolescence of fixed assets, a "colonial" type of development, underinvestment in production facilities, an ongoing energy crisis, environmental degradation, general poverty, a great social disparity among regions, a lack of transportation infrastructure, and the absence of trunk pipelines to move oil and gas.

Demographic problems in the East threaten Russia's national security. In 1989-2002, the population of the Far East declined by 16 percent, compared to 4 percent for Russia as a whole. The average population density is 2.1 persons/sq. km in East Siberia and 1.1 in the Far East. There is an acute shortage of manpower combined with illegal immigration from neighboring countries. The situation particularly deteriorated after 1991, when Moscow largely forgot about East Siberia and the Far East.

All the King's Horses, all the King's Men…

Now Moscow is changing its attitude to its "eastern stepchild." In 2006 President Vladimir Putin described the situation in the Far East as "a threat to national security" and stressed the need "to invest money in the Far East." As a result, the federal government is now compiling a targeted aid program entitled *The Development of the Far East and the Trans-Baikal Region up to 2013*.

The Kremlin is taking practical steps to transform these backward territories. First, the government is combining several of the regions in this part of Russia, creating fewer and larger entities, presumably to strengthen Moscow's control over them.

Second, the Kremlin is using the power it took in 2004 to appoint governors to carry out a major personnel reshuffle. The result is the appointment of a new regional leadership with either a St. Petersburg background or unquestioned loyalty to the Kremlin.

The third line of activities involves engaging big business in the solution of the region's social and economic problems through the fashionable use of public-private partnerships.

Simultaneously, the government is promoting oil and gas development in the East through fiscal innovations, as additional tax benefits are required to attract investors. Changes in the Russian tax code concerning differentiation of the mineral production tax are being considered, as well as tax holidays for greenfield territories, including in East Siberia and the Far East.

Also, efforts to modernize the Subsurface Law are underway; amendments to it are being discussed that are largely aimed at limiting the involvement of foreign majors in the development of Russian strategic deposits.

All the eastern challenges are clearly reflected in the problems of the East Siberia – Pacific Ocean (ESPO) oil pipeline, which should carry oil from East Siberia to the coast. Because this is a project where political considerations have so far prevailed over economic feasibility, ESPO is often compared to the Baikal-Amur Mainline (BAM), a gigantic railroad project that became a stillborn child of socialism. The construction of ESPO's first stage will probably be delayed, mainly because the pipeline was rerouted by some 400 km north of Lake Baikal. The deadlines for the second stage have yet to be determined. According to Transneft, everything depends on how quickly the oilmen can explore and develop eastern oil fields.

The risk factors for ESPO are significant. Since the proved reserves of East Siberia are relatively small, no one knows the true size of the resource base in the region. Another problem is connected with ESPO's competition with the Russian Railways, an important transporter of crude in Russia's east. Some groups in the government wish to revitalize BAM, which can be used to transport oil.

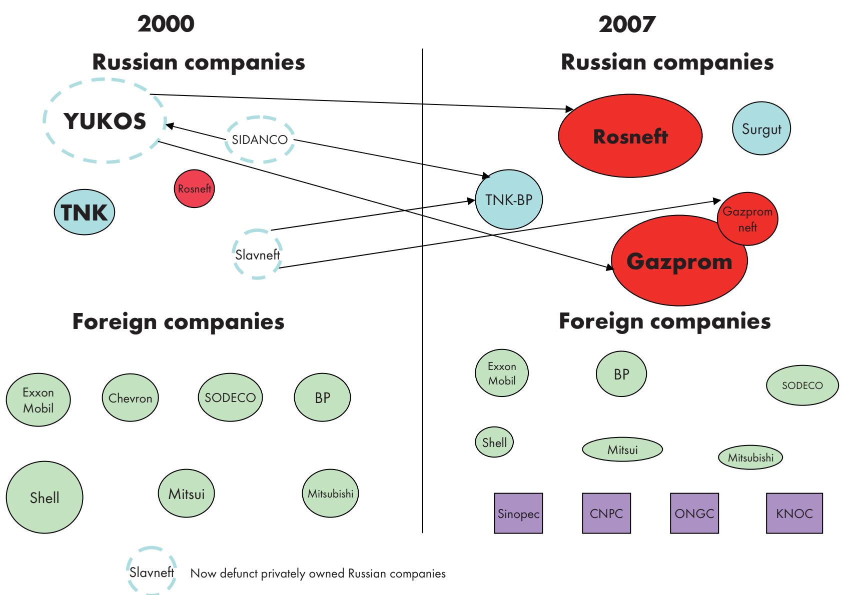
Also, the price tag for the first stage of the project has already gone from \$6.65 billion to \$11 billion because of the longer path for the rerouted pipeline and higher costs. The greater outlays will result in higher tariffs for transporting the oil, which raises questions about whether ESPO will be viable commercially.

Who is the Mightiest of Them All?

Until recently, state companies were poorly represented in the East, where private actors dominated the petroleum landscape. Gazprom had no presence in the region, while Rosneft, though owning eastern assets, was too weak to be considered a serious player.

The desire of the Kremlin to control the strategic sectors of the economy will greatly affect the development of East Siberia's resources. The government believes that the monumental task of revitalizing the region and forging energy ties with Asia can be entrusted only to loyal companies. Therefore, Moscow is creating conditions for displacing private actors in this territory with state-owned corporations and for limiting the role of global majors. Figure 1 shows these changes in graphic form.

Figure 1. Key Eastern Players, 2000 – 2007



Gazprom

Russia's natural gas monopoly is quickly founding its eastern empire. In 2005 it acquired Sibneft, which owns licenses on Sakhalin, Chukotka and in the Bering Sea. Its new subsidiary has 50 percent of Slavneft, which holds licenses in Krasnoyarsk Krai, and Gazprom hopes to acquire the other half of Slavneft, which currently belongs to TNK-BP.

Gazprom made an important step forward by joining Sakhalin-2 as a majority shareholder, and thus entering the LNG market. During the course of 2006 the authorities threatened to shut Sakhalin Energy, the company running Sakhalin-2, because of alleged environmental violations. Those problems ended in December 2006 when Gazprom acquired 50 percent + 1 share in the company.

In 2007, Gazprom finally gained control over Kovykta. Under pressure from Gazprom and the state authorities, who complained about license violations, TNK-BP agreed to sell its share of RUSIA Petroleum, which held the rights to develop Kovykta. (Now it seems that Gazprom would like to acquire a stake in TNK-BP itself, rather than simply take over this project).

With its purchase, Gazprom started preparing a new plan for developing Kovykta. This plan assumes that commercial production will begin in 2017 and the gas produced will be sold domestically to cover the potential shortage of blue fuel in Russia, though a certain proportion will likely go to China. Presumably, Gazprom is not interested in commissioning Kovykta more quickly since the project could divert funds from higher priority plans to develop fields on the Yamal Peninsula.

Gazprom's success in putting the field on stream will hinge primarily on the results of negotiations with China, the leading potential foreign market for Kovykta gas. These talks are now deadlocked because the two sides cannot agree on a price. Gazprom claims this failure was caused by the generous terms of the previous ExxonMobil-China National Petroleum Corporation (CNPC) agreement on Sakhalin-1 gas deliveries.

Gazprom has further ambitions: it has announced plans to acquire the Chayandinsk field in Yakutiya, with 1.24 tcm of gas reserves, and blocks of Sakhalin-3 uncontested. Making these acquisitions will require changes in Russian legislation.

Gazprom's role in the east is unique since in 2002 the government appointed it coordinator of the state's eastern gas policy and instructed it to develop the Eastern Gas Program. This work was completed only in 2007 after numerous revisions. Even the latest version of the program contained 15 different scenarios for developing eastern hydrocarbon fields through 2030. Investments in the Eastern Gas Program to 2030 would be \$60.1 bln, and gas production is envisaged at 27 bcm/yr by 2010, and at 162 bcm/yr by 2030.

The results of Gazprom's initial five-year effort leaves much to be desired. According to one government representative, the versions of the program were selected "under conditions of equal economic inefficiency." It would probably be too optimistic to expect that this document will help achieve a real breakthrough in gas industry development in East Siberia.

In 2006, Gazprom further entrenched itself in the region by signing a protocol with CNPC on deliveries of up to 80 bcm of gas starting in 2011. Consequently, Gazprom is developing the Altai pipeline project, which is designed to pump to China 30 bcm/yr of gas from the Nadym-Pur-Taz region, whose reserves may be insufficient for this purpose. As a result, East Siberian gas might be needed to fill the pipeline.

Through its aggressive asset grabbing and the use of administrative resources, Gazprom turned from a virtual player with high authority, but no actual assets, into a formidable force in the region.

The key question is: Can Gazprom provide enough gas to meet its commitments to Europe, satisfy the growing domestic demand, and supply China?

Rosneft

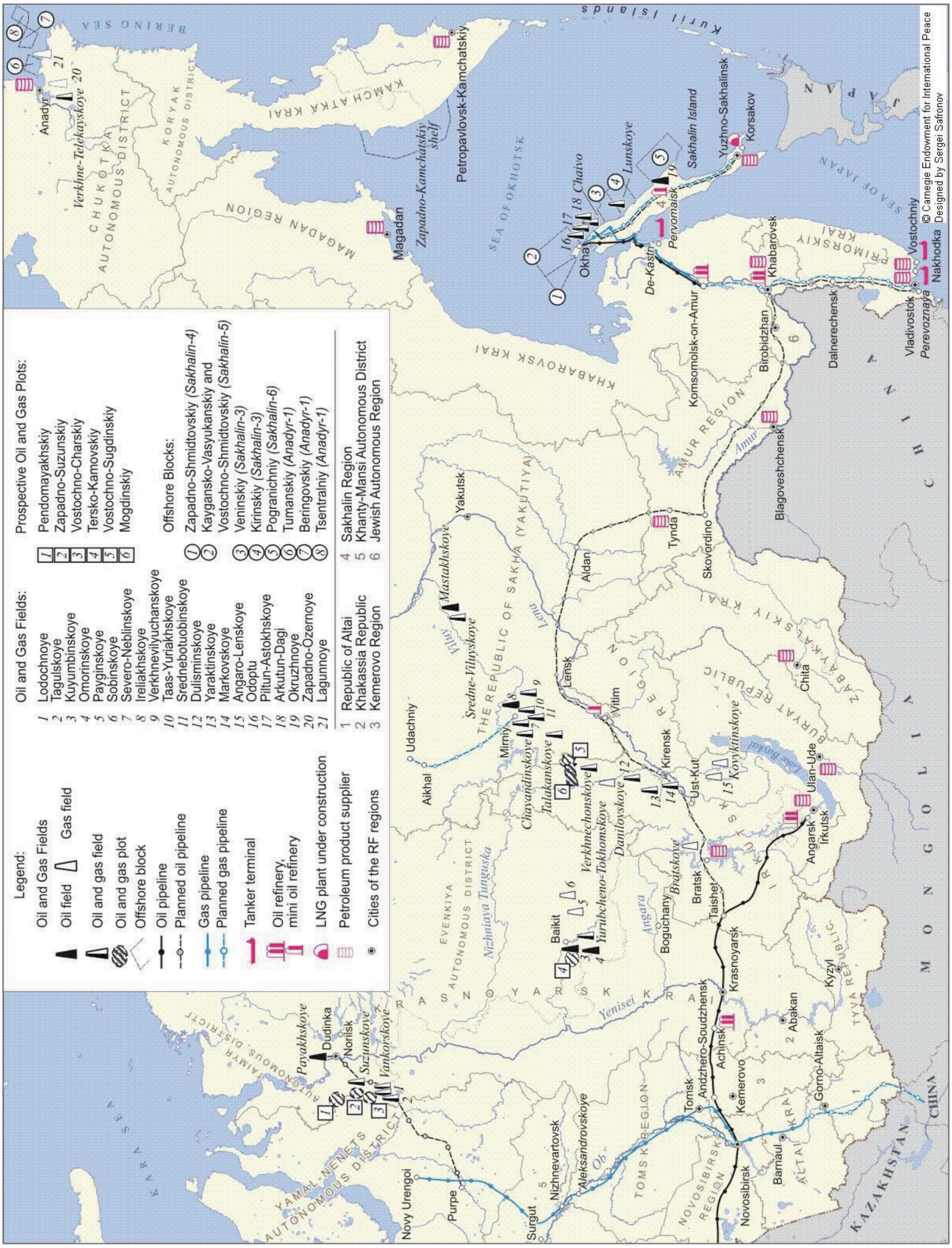
Rosneft is Russia's state-owned oil national champion. Having acquired the bulk of YUKOS's oil assets, Rosneft was transformed from a minor player into the undisputed leader of the domestic oil industry.

East Siberia and the Far East are the zone of Rosneft's strategic interests. It has a strong presence in the Far East: its subsidiary Sakhalinmorneftegas is involved in the Sakhalin-1, -3, -4 and -5 projects. Sergei Bogdanchikov, Rosneft's CEO, originally headed Sakhalinmorneftegas, and this region is psychologically important to him.

In addition to Sakhalin, Rosneft established a foothold in East Siberia. In 2003, it acquired Vankor in Krasnoyarsk Krai, defeating Total and YUKOS, companies that both coveted the field. In 2005 Rosneft announced that Vankor's recoverable reserves had increased to 250 mt through additional exploration.

In addition to expanding its reserve base, Rosneft fought for Vankor because it could not cede this field to a foreign major. Vankor is important since it represents a potential new channel of oil export not controlled by the state. Vankor oil can be shipped along the Northern Sea Route, bypassing Transneft's bottlenecks, and diversifying markets. Also, sending the oil north would avoid mixing the high-quality Vankor crude with the lower quality Urals blend.

However, after studying several transportation options, Rosneft decided to pump the Vankor crude to


Legend:
Oil and Gas Fields
Oil field
Gas field
Oil and gas field
Oil and gas plot
Offshore block
Oil pipeline
Planned oil pipeline
Gas pipeline
Planned gas pipeline
Tanker terminal
Oil refinery, mini oil refinery
LNG plant under construction
Petroleum product supplier
Cities of the RF regions
Oil and Gas Fields:
1 Lodochnoye
2 Tagulskoye
3 Kuyumbinskoye
4 Omorinskoye
5 Payginskoye
6 Sobinskoye
7 Severo-Neblinskoye
8 Ireliakhskoye
9 Verkhnevilyuchanskoye
10 Taas-Yuriakhskoye
11 Srednebotuobinskoye
12 Dulisminskoye
13 Yaraktinskoye
14 Markovskoye
15 Angaro-Lenskoye
16 Odoptu
17 Piltun-Astokhskoye
18 Arkutun-Dagi
19 Okruzhnoye
20 Zapadno-Ozernoye
21 Lagunnoye
Prospective Oil and Gas Plots:
1 Pendomayakhskiy
2 Zapadno-Suzunskiy
3 Vostochno-Charskiy
4 Tersko-Kamovskiy
5 Vostochno-Sugdinskiy
6 Mogdinskiy
Offshore Blocks:
1 Zapadno-Shmidtovskiy (Sakhalin-4)
2 Kaygansko-Vasyukanskiy and Vostochno-Shmidtovskiy (Sakhalin-5)
3 Veninskiy (Sakhalin-3)
4 Kirinskiy (Sakhalin-3)
5 Pogranichniy (Sakhalin-6)
6 Tumanskiy (Anadyr-1)
7 Beringovskiy (Anadyr-1)
8 Tsentralniy (Anadyr-1)
1 Republic of Altai
2 Khakassia Republic
3 Kemerovo Region
4 Sakhalin Region
5 Khanty-Mansi Autonomous District
6 Jewish Autonomous Region
SEA OF OKHOTSK
BERING SEA
KARA SEA
SEA OF JAPAN
Sakhalin Island
Kuril Islands
M O N G O L I A
C H I N A
KAZAKHSTAN
JAPAN
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ESPO, because without Vankor it will be impossible to fill the pipeline. Thus, the patronage of the Kremlin sometimes requires Rosneft to sacrifice profitability for political objectives.

Filling the ESPO line has become an important priority for Rosneft. In 2005 the company further strengthened its eastern positions by buying 25.9 percent of Verkhnechonskneftegas, license holder for the Verkhnechonsk field. Rosneft needs this oil for ESPO, which after its rerouting passes near Verkhnechonsk. In 2007 it acquired eastern assets of YUKOS, including in the Yurubcheno-Tokhomsk Zone in Evenkiya, also a potential supplier of ESPO.

Rosneft's downstream positions in the East are strong and expanding: initially, it owned the Komsomolsk refinery, two petroleum product distributors and three export terminals. Then, Rosneft acquired all YUKOS refineries in 2007, including Angarsk and Achinsk in East Siberia, and its eastern fuel stations. Also, Rosneft intends to build a 20 mt/yr refinery at the end point of ESPO by 2012 – in line with Russia's intentions of shifting from exports of crude to higher value-added products.

Geopolitically, Rosneft now plays an important role in Russia's relations with China, South Korea and India. Rosneft opened the door to Russian oil for the Chinese - in 2005, Rosneft invited Sinopec, with a 25.5 percent share, to conduct and co-finance exploration of the Sakhalin-3 Veninsky block. Then, in mid-2006, Vostok Energy JV was established between Rosneft (51%) and CNPC (49%) to work in Russia's upstream market, and in 2007, it won an auction for two fields in the Irkutsk Region, close to the ESPO route. Another Russian-Chinese JV in China will deal with refining and marketing.

Rosneft has a special relationship with China, as the Chinese banks provided $6 billion for Rosneft's Yuganskneftegas acquisition. Chinese oil companies aspired to player status in Russia for many years, but their achievements were practically nil before the Yugansk deal, which changed their fortunes.

The Chinese further strengthened ties with Rosneft by becoming its shareholders. Their successes may be attributed to the socialist legacy of both countries, which makes it easier for the Chinese to understand the specifics of doing business in Russia. Also, the Chinese not only try to access Russia's upstream, but let Rosneft work in their downstream market as well.

South Korea is another country with which Rosneft does business by allowing the Korea National Oil Company (KNOC) to participate in the West Kamchatka shelf exploration on a 60%:40% basis.

India, through its state-owned Oil and Natural Gas Company (ONGC), is also an important Rosneft partner. Their cooperation started in 2001 on Sakhalin-1. Then, in 2007, Rosneft and ONGC signed a memorandum, under which the Indians would access Russian offshore fields, in return, paying for their development and admitting Rosneft to the Indian downstream market.

Gazprom and Rosneft: Bitter Friends

In the past, Rosneft was too weak to compete with the almighty Gazprom. Recently, however, it has emerged as its rival on a variety of fronts – and is winning in many instances.

This rivalry will probably intensify in the East. First, there might be further disputes about exports of Sakhalin-1 gas. Despite the credibility provided to Sakhalin-1 by Rosneft's involvement, the project faces serious obstacles created by Gazprom's desire to control its gas exports. Therefore, when in 2006, Exxon Neftegas signed an agreement with CNPC to build a 8 bcm/yr pipeline to China, Gazprom strongly resisted the plan.

In 2007, Gazprom demanded that Sakhalin-1 gas should be used to gasify eastern regions and not exported, though this PSA project can export gas independently of Gazprom. Gazprom's demand is not dictated by its concern for the Russian regions, but its desire to eliminate competition with ExxonMobil, since an agreement with the Sakhalin-1 shareholders permits the Chinese to lower prices in negotiations with the concern.

Rivalry between Gazprom and Rosneft aggravates instability in the domestic oil and gas industry (and hinders development of Russia's east). Nevertheless, the two competitors ensure a de facto system of checks and balances.

Since Gazprom and Rosneft have radically strengthened their positions in Russia's east, it has become a testing ground for the new state petroleum policy. "Russification" and "etatization" of the domestic oil and gas sector will probably continue. Global majors will be delegated the role of junior partners: thus, Rosneft permitted BP to join Sakhalin-4 and Sakhalin-5 with 49 percent. Up to now Sakhalin-1 and Sakhalin-2, both managed by foreigners, were the only eastern projects that showed real progress; and global majors remain the essential providers of technology and know-how.

Private companies will be further displaced by Gazprom and Rosneft, probably not to the benefit of Russia's East. Gazprom has its own corporate agenda that may differ from the national interests and hinders the development of some eastern regions. Rosneft might be spread too thin after its recent acquisitions to undertake major projects. Also, the state commissions them to perform additional social and political functions, which might further undermine their efficiency.

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In sum, the development of Russia's East and efforts to work in the Asian energy markets face formidable challenges. Major breakthroughs in creating an eastern hydrocarbon province appear unlikely in the immediate future. Most likely, sporadic progress will be achieved in easier-to-implement projects where national objectives coincide with the corporate interests of Gazprom and Rosneft.

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Analysis

Regional Influence in Oil and Gas Development: A Case Study of Sakhalin

By Elana Wilson Rowe, Oslo

Abstract
The offshore oil and gas reserves off Sakhalin Island in Russia's Far East are one of Russia's more promising locations for new field development and by 2010 Sakhalin's oil production is expected to account for 7 percent of the demand in the Asia-Pacific region. Not surprisingly, Sakhalin regional authorities seek to ensure a level of regional control over offshore oil and gas development, along with the corresponding economic benefits, despite a relatively weak position in light of Moscow's efforts to centralize authority. This article examines ways in which regional administrations can and do influence the process of offshore oil and gas development in the Russian federation through a case study of the Sakhalin Oblast Administration. Regional authorities on Sakhalin have managed to retain an influential role for themselves via: 1) encouraging onshore infrastructure for offshore oil and gas operations; 2) working to smooth the way for development at the federal level; 3) insisting on local content and contracts when possible; and 4) finding opportunities for regional and local benefit via impact assessment processes. This analysis is based on a review of publicly available primary sources (e.g. company documents) and interviews carried out with regional authorities and foreign executives in Yuzhno-Sakhalinsk in September 2006.

Changing the Federal-Regional Relationship
The early days of the post-Soviet period were marked by a pronounced decentralization, with many formerly centrally-held competencies being delegated to regional governments. Technically, sub-soil development was considered a shared federal-regional competency, with the federal government leading new initiatives and the regional government enjoying more involvement in proposal approval and implementation. However, most regional governments took a more pro-active role by establishing their own oil and gas concerns and taking an active and influential interest in negotiating licenses and monitoring projects.

Upon taking power at the end of 1999, President Vladimir Putin reversed the decentralization trend and replaced it with a policy to recentralize power and revenue. In August 2004, the State Duma passed a revised law on subsoil resources that effectively returned their management to the federal government exclusively. The recentralization of power helped the federal government gain greater control over regional revenues, including profits from oil and gas development. While the regions used to retain 50 percent of tax revenues, this balance has shifted in favor of Moscow, which then is to allocate revenues back to regional budgets. As becomes clear with the case of Sakhalin, much of the activity of the regional authorities is directed towards locating ways in which the revenues of oil and gas development can, despite recentralization, be captured at the regional level.

Regional Interventions and the Ambiguities of Russian Federalism
Historically, Sakhalin Oblast authorities did not gain as much control as other resource-rich regions during the post-Soviet decentralization, as offshore oil and gas fields fell clearly under federal jurisdiction. Regardless, regional authorities have been largely supportive of development and can continue to be characterized as pro-development. In fact, it was primarily regional voices (although still only a few) that publicly supported the