## Russia: An Overview

Russia is on a fast track to regaining its former title of No. 1 world oil producer.

hen visiting the Russian federation for the first time, one thinks of those thousands of unfortunate adventurers who, at different stages of world history, have tested the patience, pride or indeed the very will to live of the mighty Russia. Many of those adventurers, whether Napoleon's Grand Army, Hitler's storm troopers or the Caucasian tribes, have learned, often to their detriment, that this country deserves awe and respect.

Thus the common view in the West is that Russia is a huge, wild and only mildly safe place to venture into, particularly for business. Tales of Mafia-ridden streets, political instability, corruption and unforgiving winters still dominate perceptions of the Russian federation, breeding wariness and mistrust. Yet, when observing today's Russia and its achievements since the painful, yet peaceful collapse of the Soviet Union, it is respect and admiration that strikes the observer.

From a ruined and discredited regime lacking popular support, the Soviet Union has given way to a federation gathering 145 million people in 21 republics. It has a \$350-billion GDP and reported a much-acclaimed growth rate of 4.1% in 2002. The country's territory is Russia, its largest asset: roughly 1.8 times the geographic size of the U.S., it benefits from oil, gas, coal and strategic mineral deposits in abundance.

Since the December 1991 final farewell to the Soviet Union, much has been achieved to put Russia back in the league of great nations. A new constitution was adopted in December 1993, following the creation of an independent Russian federation on August 24, 1991. A new state has painfully emerged from a decade of legislative reshuffle, administrative and political turmoil, and a great deal of instability.

The Russian economy has suffered hard times and still slumbers way below its real potential. A decade after the Soviet Union imploded, Russia is still striving to establish a modern market economy and achieve economic growth that would benefit a larger part of its population. It offers a striking contrast to its Central European trading partners—Poland, Czech Republic and Hungary—which were mostly able to overcome the initial production declines that accompanied the launch of market reforms, and within three to five years.

Instead, Russia's economy contracted for five years, while the executive and legislative branches dithered over the implementation of many of the basic foundations of a market economy. Strong budget deficits and the country's fragile financial institutions left it over-vulnerable when the global financial crisis struck in 1998. The climax was reached in August when the depreciation of the ruble and debt default by the government triggered a sharp deterioration in living standards for most of the population. The economy has subsequently rebounded, growing by an average of more than 6% annually during the 1999-2001 on the back of higher oil prices and a weak ruble.

This strong recovery, along with renewed efforts at reform, led by the strong stance of President Vladimir Putin since December 1999, and his commitment to advance lagging structural reforms, has raised business and investor confidence over Russia's prospects for its second decade of transition.

Yet serious problems persist. Russia remains strongly dependent on exports of commodities, particularly oil, gas, metals and timber, which together account for more than 80% of exports, leaving the country vulnerable to swings in world prices. In the meantime Russia's industrial base is increasingly obsolete and must be urgently replaced or modernized if the country is to achieve sustainable economic growth.

#### Fueling the rebirth

The oil and gas sector is traditionally the main economic motor of Russia, accounting for 30% of its GDP. From a position of leading world oil producer in the late 1980s, Russia saw its production dramatically dive. Within 10 years, and due to a lack of financing, Russia's crude oil output shrank by nearly half, from 11.5 million barrels a day in 1988 to only 6.1 million a day in 1998, with no signs of recovery in sight.



The Soviet Union provided a solid base to the Russian oil and gas industry.



Local communists, chief beneficiaries in the future? Girls in the Yamal-Nenetsky province.

In the past few years, however, a production revolution has taken place. Russia was already back to the second rank by 2001, even taking the lead in terms of production ahead of Saudi Arabia in February 2002 and again later during the same year. Meanwhile, OPEC was trying to get some production discipline from its members and cut production several times. As a non-OPEC member, Russia was able to increase production steadily and replenish its cash reserves on the back of high oil prices.

It is hard to believe that merely a decade ago the Soviet oil empire (which happens to be the largest oil industry ever built) was falling apart, along with the debris of the biggest centrally planned economy in the world.

With more than 7.4 million barrels per day of crude production, Russia is Saudi Arabia's only competitor for the world's top oil-producing title and is expected to hit 8 million barrels a day in 2003 and 10 million around 2010. The country is the world's second-largest oil exporter, with the world's eighthlargest oil reserves. It is also the world's second-largest energy consumer.

It is also relevant that this spectacular development is no longer controlled or financed by the state.

On the ruins of the state-run oil exploration, production and distribution system have arisen new major private companies, vigorously building their own "petropreneurship," notably during the initial stages through the well-publicized and controversial "loans for shares" schemes and other scandals.

During the murky years of privatization, when financiers and their associated financial institutions were the major players in the process, a new generation of entrepreneurs took over the assets that were financially stranded and mismanaged. This triggered a race towards a consolidation of reserves and assets, building, in a limited amount of time, oil and gas groups that are now calling for attention on the world scene.

When the financial community was hit by the 1998 crisis and low oil prices simultaneously, these companies had already secured access to oil reserves at some of the cheapest prices per barrel recorded in the industry's history.

#### On the world stage

Apart from the aroma of scandal surrounding their creation, the success of those vertically integrated companies is today striking, even by global standards. In terms of assets sizes, management quality, expertise and demeanor, the likes of OAO Yukos, OAO Lukoil, Tyumen Oil Co. (TNK) and Surgutneftegas have entered the first league of world oil companies.

Even without its foreign assets, Lukoil's proven oil reserves amount to 16.7 billion barrels of oil equivalent and exceed those of ExxonMobil Corp. (13.9 billion oil-equivalent barrels of proved oil and gas reserves), themselves roughly equal to Yukos' (13.3 billion BOE). Tyumen Oil Co. (TNK) with 11.5 billion barrels controls more oil than does Royal Dutch/Shell Group, while Surgutneftegas' reserves (9.1 billion barrels) outstrip those of BP.

The recent deal announced between BP and TNK, encompassing the creation of a 50/50 venture valued at \$18.1 billion, has put BP on equal footing with Exxon-Mobil in terms of proven reserves. It has also created an entity that will increase BP's global oil and gas production 25%. BP will then overtake Royal Dutch/Shell Group in crude oil production and rival ExxonMobil, at a projected 2.5 million barrels a day.

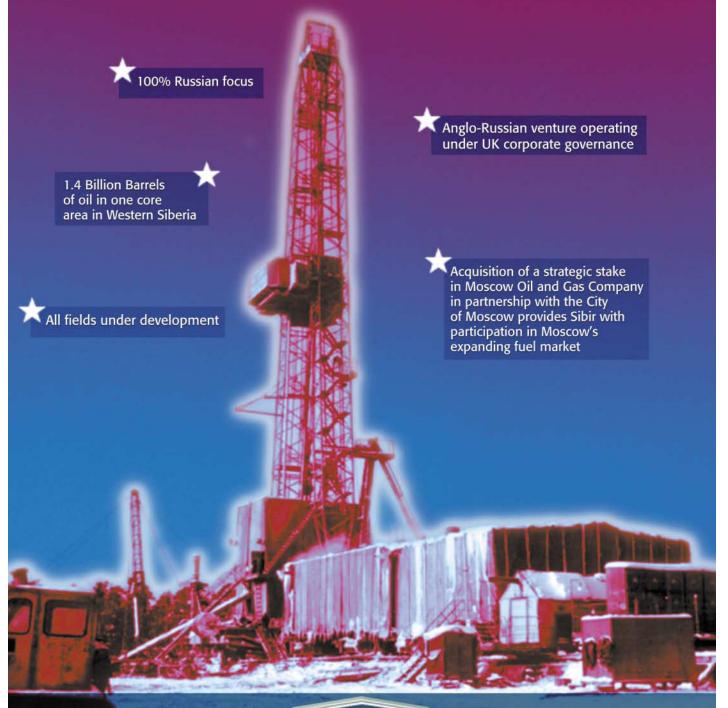
Lukoil's total oil production in 2002 (certain equity companies excluded) amounted to 78.2 million tons (about 20% of Russia's oil production), up 2.2% from 2001 with daily production figures of more than 1.3 million barrels.

Meanwhile, Yukos is producing 1.5 million barrels a day (426 million barrels in 2001) and increased its production 18% in the first nine months of 2002. Its ambitions are far-reaching. The company has world-scale projects to increase its access to world markets. It is also jockeying with Lukoil for the top spot as Russia's largest producer. Early indications for 2002 suggest that it will win the title for that year.

The sector also still contains a few state-owned organizations. Until December 2002, the two most interesting E&P organizations were Rosneft, a strongly vertically integrated company ranking seventh in terms of production at 13.5 million tons (2000 figure) and Russia-Belarus-controlled Slavneft. The latter, however, was privatized in December 2002. This much publicized and criticized auction process saw potential foreign buyers of 75% of Slavneft kept at bay (notably Chinese petroleum giant CNPC).

The sale was one of the last opportunities offered to investors to grab large-scale Russian assets. It gathered \$1.8 billion instead of the expected \$2.5- to \$3 billion and transferred Slavneft stakes to TNK and Sibneft, both already stakeholders in pre-sale Slavneft. This eagerly awaited sale didn't bring the levels of fairness and transparency expected by the international investment community and raised questions on the selfasserted willingness of the Russian government to develop a competitive sector abiding by international standards of busi-

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Nevertheless, on the private sector's side, the efforts put together by the Russian oil oligarchy to create strong, shareholder-driven and transparent organizations have been, finally, much acclaimed on the international business scene. Yukos chief executive officer Mikhail B. Khodorkovskiy has been at the forefront of this effort, turning Yukos into one of the most profitable as well as the most transparent oil companies of Russia.

Yukos has also increased its visibility in the world's financial markets, with Level 1 ADRs being actively traded on a selection of European markets while it has engaged in active crude deliveries to the U.S.

Lukoil has also developed a rather aggressive international strategy, both in E&P and downstream activities. It has acquired and is developing assets in the Caspian region, Algeria and even Iraq (with a big question mark on the future of its previously licensed West Qurna Field, now being taken away by Iraqi authorities).

It is also seeking to purchase refining assets in central and eastern Europe and consolidating its Getty retail outlets in the U.S.

Meanwhile TNK, now effectively teaming up with BP in the largest business deal struck in the sector in Russia in recent years, secured its first shipment of 1 million barrels of Uralsblend crude to North America last October and is looking to expand its international market reach.

This surely points to the fact that Russia's oil community has understood the virtues of international exposure and the importance of a reliable reputation to secure market access and to bolster their position when the need to talk to capital markets occurs, and that is increasingly often.

#### The Russian independents

Focusing only on the newborn giants would leave a large part of today's Russian oil and gas industry in the dark. As in the rest of the world, the pioneering risk-takers who make the oil and gas sector such a vibrant business aren't necessarily those who occupy the foreground in the picture. Besides its shining new world-scale majors, Russia is host to a wealth of small to medium-size producers who, to live up to their designation as independents are trying to make their way through the hurdles of Russian legislation, tax system and hostile oversized competitors.

Keen on partnerships and looking at their U.S. counterparts' experiences, the Russian federation's independents are hoping for better days.

The connection of the Russian oil sector with the outside world is mutually important, especially at times of uncertainties of OPEC supplies and a gloomy perspective in the Middle East. Russian exports are the new lifeline of Europe and in the medium term, North America looks also set to be increasingly dependent on the federation's hydrocarbons.

The limitation in export capacities through existing infrastructure demands a commitment to major new infrastructure projects. One features the partnering of oil majors Lukoil, Yukos, TNK and Sibneft for the construction of an arctic port in Murmansk. Yukos is also eyeing a possible partnership with CNPC and looking at the feasibility of a pipeline connecting western Siberia and undeveloped eastern Siberia fields to China. Meanwhile, pipeline monopoly Transneft is also considering expanding its reach through a large number of new projects.

On the gas front, Russia's position is undisputed. It shares the privileged position of leader of the world's gas producers with the U.S., accounting for more than 25% of the world's output. It also accounts for one-quarter of the world's reserves and is therefore on this account the sole mega-player worldwide. One company stands out above the rest and has no rival in the world as the largest gas company and the biggest exporter: Gazprom accounts for 88% of Russia's gas production (output 2002: 521.7 billion cubic meters).

This leaves little room for Russia's independent producers, who nevertheless strive to exist as they deal with market access, transportation and tax issues. Players are struggling to make room for themselves and the sector is expecting major changes in the years ahead.

Within such a thriving industry, service operators have ample room for their own business development. On the ruins of the Soviet production system, local players have developed and managed to reach the highest standards of service quality and consistency. Mirroring the growth of Western oilfieldservice companies in a much shorter period of time, they have developed and strengthened their market share and are today in direct competition with the world's leaders on the Russian market.

International service leaders have also felt the Russian attraction and expanded their operations in the Federation. But local players use their understanding of the market and its specificity to prepare for the next stage of development. Major opportunities are to be found in increasing production capacity and divestment policies of oil majors and will provide fuel for growth.

In this challenging environment, international operators have been watching closely, examining potential assets but also trying to circumnavigate legal reefs, tax loopholes and canvassing for the Russian federation's legislation to be revised, with moderate success.

Some critical elements of its legislation are at present on standby, pending resolution of conflicting views and interests within the energy sector. Production-sharing-agreement (PSA) legislation was passed first in 1996, paving the way for worldclass projects involving Shell, ExxonMobil and Mitsubishi, attracting multibillion-dollar investments. With changes in the Russian legal position regarding PSAs, new projects are suspended pending the goodwill of the Duma (the lower house) and millions of dollars of investment are waiting to be unleashed.

Meanwhile, changes in the subsoil law, the tax regime and others are modifying the landscape for both local and foreign investors and are blurring the overall picture of the Russian oil and gas sector.

The articles that follow this introduction will explain in detail today's Russian service sector, infrastructure, gas business, foreign-company opportunities for reserves and production in Russia, and legal structure.





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## **Crushing Dilemmas**

A strong web of more than 150 small and midsize companies is calling for partners, technology, more investment and pipeline access.

Russia in the early days of its rebirth, the country witnessed the blossoming of independent players besides the big organizations that are now world-class players. These independents had anticipated the reform movement by setting up joint ventures in the late 1980s and early 1990s.

The major reorganization of the sector began in 1992-93 and led to a fast, some say hasty, process of privatization, which reached its heyday in 1995. This denationalization and decentralization opened the oil market to hundreds of new players with origins as diverse as their ownership structures: private, cooperative, municipal, public, joint-stock, and foreign and Russian joint ventures, operating upstream and downstream but primarily involved in crude-oil and petroleum-product trading.

Meanwhile, the 11 vertically integrated oil companies formed after 1995 were strengthening their positions as the cornerstones of the oligopolistic industry of today's Russia. Their role in shaping the sector's evolution has been fundamental, thanks to their direct access to Russia's decision-makers and the bargaining power provided by their sheer weight in the economy.

In the shadow of these giants and would-be giants, independent players are struggling to succeed in the face of adversarial conditions. According to Elena Korzun, General Director of Assoneft, the association created in 1994 to defend and promote the interests of small to midrange oil companies in the Russian Federation, there are more than 150 small and midsize companies operating in Russia.

Out of the 348 million tons of oil (including condensate) pro-



Grigory Guerevich, president of independent oil company Nobel Oil.

duced in 2001, vertically integrated companies accounted for 284 million tons (81.6%). Stateowned companies produced 39.9 million while small to midsize producers extracted 24 million, roughly 7% of the total. Some 17 million tons were produced by Assoneft members.

These independents were created to develop fields that were left over or brushed aside by the majors for technical reasons. Small fields, difficult reservoirs, abandoned wells or depleted fields were their first targets, alongside competing for licenses to develop small to medium-size assets.

Today, 59% of such small to medium-size fields (of up to 30 million tons of extractable reserves) and 41% of the large fields (30- to 300 million tons) are developed or have licenses owned by small and medium independents. In comparison, only 28% of the smallmedium fields belong to vertically integrated oil companies.

Dozens of companies have emerged, eager to grab the benefits of the rich Russian subsoil. Many joint-ventures involving foreign partners have been established, benefiting from 100% export allowances and major tax benefits (suppressed in 1997). The independents have had to compete with the appetite for asset-grabbing of their large vertically integrated colleagues. To date, more than 10 companies with total output of 65 million barrels per year have been swallowed up by Lukoil, Rosneft (the latest being Severnaya Neft), Sibneft and the other hungry Russian majors.

#### Darkening horizons

For those still in place, challenges are piling up. Firstly financial: since the raison d'être of independent companies is the development of oil in difficult extraction conditions, they have lower well productivity than the majors. Hence the fact that independents achieve a wide range of production standards with output varying from 1,000 barrels per day to about 9,000 for Sibir Energy Plc, 3.6 million barrels per annum for Tatarstan's Tatnefteotdacha, and much lower yields from smaller players in the federation.

These companies are facing difficulties in their everyday business, notably on the fiscal front. A tax reform was implemented in 2002, replacing excise, royalty (based on domestic sales, which was largely dodged by the majors through the use of transfer prices) and geological recovery taxes with a new unique tax frame. Independents are now paying taxes based on the price of oil on world markets, while in reality they can export no more than about 30% of their production through the country's pipeline system. The rest of their crude is exported by railway or tanker or is sold on the domestic market, theoretically liberalized in 1995, but still largely controlled by the majors and federal authorities.

In fact, the majors are often the main buyers of independents' production, in order to export as much of their own crude as possible and keep the juicy export premiums to themselves. Such margin-squeezing has become an integral part of the game.

The result is that prices on the domestic market reach only a fraction of world prices (a cubic meter of crude, or 6.28 barrels, is sold at the rock bottom price of \$30 to \$32). This severely diminishes the margins for independent producers, while the tax regime is adding extra weight on their fragile shoulders.

A large field with major capacity and low lifting costs developed by a major will benefit from the same tax level as a difficult field, presumably developed by an independent bearing considerably higher production costs. The situation will surely be worsened if the announced state plan to hike crude export duty by as much as 50% by April this year is implemented.

"The situation of domestic pricing is dramatic for our companies. The price is very low and we lack a free market for crude as well as a free market for refining capacity," says Yelen Korzun, general director of Assoneft.

Limited refining access represents another headache for independent players. The sale of refined products could offer them relief and allow them to benefit from the premium of added value, but here again, prospects are limited. The Russian Federation lacks refining capacities, at least independent ones. Most of the country's 26 refineries are controlled by the majors.

"Following the breakdown of the Soviet Union, the oil sector was divided by the administration to create 11 large companies, while the independents emerged as the real market players, driven by and subject to competition," says Korzun.

"Unfortunately, all the infrastructure, refineries, pipelines, etc., ended up in the hands of the big players, without the state drawing up sufficient codes of conduct. Unlike in the United States, here independent players don't have a solid legal framework, like antimonopoly laws, to protect their access to infrastructure and defining behavioral codes to regulate the sector. Here, there is only one rule: all rights belong to the largest and strongest companies."

#### **Export strategy**

To bypass such market bottlenecks, refining projects are flourishing country-wide, from Severnaya Nefte's project in the Oryol region, to the long-discussed possibility for the oil-producing Tatarstan Republic to build a refinery for the benefit of the almost 30 independents operating there.

For others, mini-refinery plants or further alliances amongst independents to build plants catering for the collective needs of producers are some of the options envisaged, but investment costs are prohibitive for many of them.

Another major issue for independent producers is the need for export access, which has become even more crucial since the implementation of the new tax system. Independents, alongside the majors, are eager to have 100% crude oil export access. Majors are already exporting 70% to 80% (crude and oil products) while independents are exporting only an average of 32% of their crude.

Following the law on "natural resources monopoly," item 6, all companies are allowed equal access to the Transneft system, the Russian pipeline monopoly, according to their selfstated transportation volumes. Nevertheless, the system is reaching maximum capacity. And in today's high oil-price environment, the majors are trying to keep most of the current export capacity for themselves.

Thus, alternative export routes are being sought. Out of the estimated 4 million barrels exported from and via Russia by all means and routes, some 600,000 barrels per day are leaving the country by rail and small ports, thus bypassing Transneft.

A new measure, if adopted, would mean that any volume of crude entering the pipeline web would have to meet certain standards for salt, water and sulfur. In regions like the traditional oil powerhouse of the Volga-Urals, or Tatarstan, old oil fields often display higher sulfur content and such a measure would be a death blow for many small to midrange producers, unless a tax arrangement is made to take the extra cost burden of treatment into account.

#### Success stories

In this rather difficult environment, major success stories are emerging and calling for analysts' interest. London-listed Sibir Energy Plc is an example. Its chief executive officer, Henry Cameron, had been conducting a legal advisory business for years in the former Soviet Union but returned to the U.K. in 1996,



Alexander Samusev, general director of independent oil company Severnaya Neft.

when business conditions were satisfactory enough for city investors to look again at the Russian oil industry.

Following a string of acquisitions and consolidations in Western Siberia, and thanks to strong ties between Cameron and Moscow's prominent businessman Cagla Tchigirinsky, Sibir today controls more than 1.4 million barrels in proven and probable reserves. It also holds a major stake in Moscow's only refinery, the 9.6-millionton-per-year-capacity Moscow Oil Co., to be integrated in the newly created Moscow Oil and Gas Co. (MOGC). This muchprized refining asset is protected by the will of Moscow's mayor, Yuri Luzhkov, to preserve a free oil market for the city and its region, beyond the control of Russia's monopolists.

Cameron stresses the importance of this refinery for an independent like Sibir Energy: "It is easier to bypass the pipeline restrictions by exporting refined products and selling the balance on the domestic market. Access to refining capacity clearly brings in a lot of benefits, including increasing the margins of your domestic sales to the level of export margins. Let's also bear in mind that the Moscow region itself represents a market the size of Greece."

Like Sibir Energy, which faces the unwillingness of Shell to develop the licensed fields of Salym without a production-sharing agreement (PSA), other independent players also have to cope with difficult partners, oilfield neighbors or simply large competitors. Nobel Oil Group, today extracting 10,000 barrels per day from its two operating fields in the semi-autonomous Komi

Republic (1,000 kilometers north of Moscow) has had to fight hard against its giant neighbor (and 25% shareholder) Lukoil, the region's main producer and explorer of the oilrich tundra subsoil.

Nobel Oil won a tender process for a field but then had to face Lukoil's unwillingness to open its transportation infrastructure in the region to Nobel Oil's crude. For Grigory Gurevich, the company's president, the issues faced by the independents are crushing for



Early mover, early winner: Henry Cameron, CEO of Sibir Energy Plc.



A workover at Sibir Energy's K1, West Siberia.

any company, and should call for strong external interactions.

"If we are to have any weight in the energy balance, the government must support the independent companies. Also, the need for foreign investment and partnership is crucial, as foreign partners bring not only financing but, more appealing for the Russian producers, technology. They also bring their experiences of separation between business and government, and their determined approach and efforts towards modifying the legal framework. Their voice is what can make the difference."

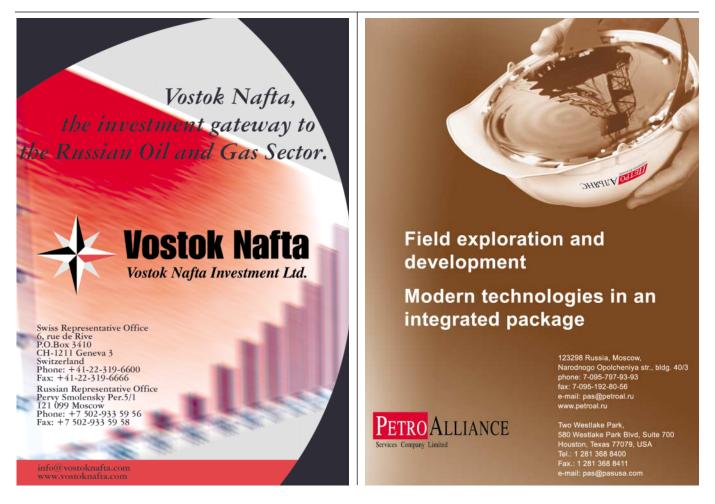
#### Foreign ambitions, local solutions

Such foreign operations are numerous, from leading firms such as Marathon Oil, once a stakeholder in the Sakhalin II mega-project (before selling to Shell, Mitsui and Mitsubishi), and Ocean Energy Inc., which is in a joint venture with Tatex.

Established in 1990, Tatex is a joint venture between oil major Tatneft and Texneft, a subsidiary of Ocean Energy, Houston. The company is marketing its technological expertise in tank vapors recovery units (VRUs), and is also producing 550,000 tons of oil from its two licensed fields of Onbysk, 30 kilometers west of Tatarstan's giant Romashinkoye Field and the Demkinskoye Field, producing heavy crude.

There is still plenty of potential for independents in Russia, provided of course, that the Russian majors are willing to let independent companies live at all. Though the Russian oil market is phenomenally attractive, to succeed in the federation one has to insulate oneself from risk. Hence the absolute necessity for a local partner, and this is exactly the role that the Russian independents are very eager to offer their counterparts worldwide.

In the words of Sibir Energy's Cameron, applicable to so many others, lies the dilemma and motto of many of the most successful independents of Russia: "We are punching well above our weight, but we are still in the ring."



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### **Doors Wide Shut**

As Russian crude production rises and producers seek new markets, they need more pipeline capacity.

hen Russian oil and gas executives talk, invariably the same concern comes up. Access to export markets is a matter of life or death, they say, notably for the federation's small and midsize companies.

In 2002, out of total production of 380 million tons, the Russian federation exported 173.5 million tons (up from 147.9 million tons the previous year). It also exported 74.6 million tons of refined products (up from 70.4 in 2001). Gas exports totaled 167.9 million cubic meters, again registering an increase year on year.

Despite restrictions on exports due to a long-standing quota arrangement, Russia's oil producers have sought to maximize their foreign sales by whatever means possible. The large discrepancy between the price of crude on export markets and its domestic price, added to the hard currency payments received for exports, are incentives to increase international sales—thus the need for more pipeline capacity.

Yet, Russia faces major infrastructure deficiencies. In the words of Mikhail Khodorkovskiy, Yukos chief executive officer, "The first blow to transport capacity is when we reach 300 million tons of yearly production and hit the pipeline system's throughput limits. The barriers are closing down on us at 450 million tonnes, which is when we really reach the ceiling.

"Considering overall onshore reserves of 20 billion tons, normal production levels should stand at around 450- to 500 million tonnes per year, to be in a position where the level of amortization of infrastructure investment is satisfactory. At the current rate of production increase, we will reach this level by 2005, but we will not have the necessary infrastructure to transport the oil.

It seems therefore unreasonable to continue with further hikes in production."



Massive country, massive infrastructural costs.

#### **Busy lines**

Russia's oil lifeline is Transneft, a monopoly pipeline that transports 93% of the country's crude oil production. Established in 1993 to replace the Soviet Union's Glavtransneft, it controls 48,160 kilometers of long-distance pipelines (the world's largest). Transneft has a sister company, Transnefteprodukt and its 19,300 kilometers of pipeline links to Russia's 13 biggest refineries. It carries refined products to Ukraine, Hungary, Poland, Latvia, Kazakhstan and three Russian ports: Tuapse, Novorossiysk and St. Petersburg.

Transneft is a state within the state that accounts for three-quarters of the country's exported oil. Monthly Transneft exports average 2.5- to 3 millions barrels per day.

It also carries large transit volumes of crude from Kazakhstan and Azerbaijan, which account for an average of 12% of exported volumes. These exports follow different routes: the main pipe routes are the well-known Druzhba (friendship) pipeline, connecting Russia to central and eastern Europe through a northern and a southern route (Poland, Ukraine, Belarus, Slovakia, Hungary and the Czech Republic), all the way to Germany.

An alternate route goes to the Black Sea port of Novorossiysk, Russia's principle oil port, which also happens to be the outlet of one of the federation's minor alternative pipelines, the Kazakhstan-Russia Caspian Pipeline, run by the Caspian Pipeline Consortium (CPC).

CPC consists of a 50% stake by Russia, Kazakhstan and Oman, and 50% by a coalition consisting of ChevronTexaco (15%), the Lukarco joint venture of Lukoil and BP (12.5%), Rosneft-Shell, ExxonMobil, ENI, BG, Kazakhstan Pipeline ventures and Kerr-McGee.

Opened in December 2001, the 1,510-kilometer pipeline connecting Kazakhstan's Tengiz Field to Novorossiysk cost \$2.6 billion to construct—twice the original estimate. It has an initial capacity of about 566,000 barrels per day. The eventual throughput capacity could be doubled to 1,334 million barrels per day, of which 15 million will be crude of Russian origin.

Eventually alternative connection routes may be used to avoid the Bosphorus Strait bottleneck (Novorossiysk is the starting point for shipments through the strait towards the Mediterranean Sea).

The strait has a 150,000-ton limit for shipment transit allowances. The lack of VLCC (very large crude carrier) capacity will surely be a major handicap when the long-awaited and delayed Baku-Tbilisi-Ceyhan (BTC) pipeline will come onstream, which is expected to be around 2005.

This will connect the Azeri oil fields with the Turkish port of Ceyhan, which is VLCC-capable and therefore opens the way to straight crude shipments to the U.S.—a key competitive advantage when compared with other, existing outlets.

Ian MacDonald, CPC general director, doesn't see much trouble there. "The limits on Bosphorus-Dardanelles navigation to 150,000-

ton ships is making it less competitive, but CPC is operating on the market with good credentials. In fact, recently, we have had one shipment that double-loaded a VLCC in the Mediterranean, bound to North America. Also, increasing volumes of CPC are going to the Far East."

#### Golden egg conveyor

Through its law on natural monopolies and the associated antimonopoly legislation, the Russian government has promoted equal access to the Transneft system, according to allowances based on production levels, which are reviewed every quarter. This was welcomed by independent players, while the majors were looking at ways of barring them from access to the main export route.

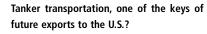
CPC's quality bank system—where a basket of 11 crudes are allowed on the system—is currently being considered for implementation for the Transneft network too, and has already received a favorable nod from the government. This would be a convenient way to keep away small producers of low-grade crudes for which the cost of treatment would be prohibitive.

Such a decision, without a fiscal incentive associated with it, would be a death-blow for many of them, making the lack of refining capacity access for independents all the more acute. "We are monitoring the situation carefully and we hope that this project won't go through without considering the small and medium-range companies' opinion and recommendations on this point," emphasizes Nobel Oil's Grigory Gurevich.

Transneft's predominance in the Russian oil and gas infrastruc-

ture is strengthened by its control over some of the key outlets at the end of the pipelines. The northern port of Primorsk, commissioned in December 2001, is one of Russia's newly revamped export doors, to replace Russia's only deepwater seaport at Novorossiysk, which, on top of being by limited trans-Bosphorus restrictions, goes through a storm season every winter, creating a 2- to 4-million-ton glut in the already oversupplied domestic crude market.

Primorsk's connection to Transneft's Baltic Pipeline System (BPS),



which was opened in December 2001 with a throughput of 12 million tons per year, is turning it into a new viable export route, handling tankers of up to 150,000 tons, primarily aimed at European markets.

Another port has been at the heart of a heated saga in recent



months. Once the Soviet Union's major outlet, Latvia's Baltic sea port of Ventspils had its crude delivery (315,000 tons per day) shut down by Transneft, the latter arguing that the pipeline would need \$143 million of investments for revamping. This claim, and the subsequent shut-down of the pipeline, has offered a way for Transneft to put tremendous pressure on Ventspils' operator, Ventspils Nafta Oil, to force it to sell off a 25% stake in the company.

With an export capacity of 16 million metric tons of crude and 12 million tons of refined products, Ventspils is a key export route, and its shut-down was bitterly felt by Russia's oil producers. The message sent by Transneft to the Russian companies and to the Latvian operator was clear enough—Transneft has to be reckoned with as the country's major door into foreign markets.

#### Unity vs. deadlock?

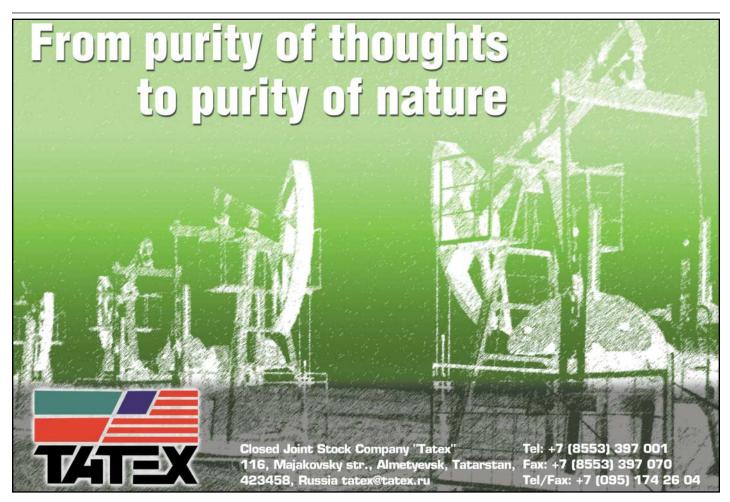
Two mega-projects on the planning table have stirred up considerable passion, some controversy and much interest from the oil community worldwide. The first project is driven by a coalition of the country's leading oil producers and exporters: Lukoil, Yukos, TNK, Sibneft and Surgutneftegas, which propose a pipeline from western Siberia, with two possible routes: one of 3,600 kilometers around the White Sea; the second of 2,500 kilometers running straight across the White Sea, all the way to the Arctic port of Murmansk, where a VLCC-capable port would considerably boost Russian export capacities.

Despite the statement by the Russian government that any new pipeline infrastructure to be built in the federation will be state-controlled, the project is likely to go ahead considering the production expansion plans of Russian majors. Their production is already hitting the infrastructure limits of existing export routes. The commissioning of the Murmansk arctic port could be under way as soon as 2007, featuring offshore mooring points to handle large crude cargoes. The final capacity of Murmansk for exports is expected to reach 584 million barrels of oil annually shipped to western Europe and the U.S.

"This project is regarded as potentially closed to independent producers' volumes, but nevertheless has a potential source of benefits for them," explains Alexander Samusev, Severnaya Neft general director. "It is a club project and it is clear that we cannot join it at this time."

The second project is actually a set of two competing projects, both dedicated to pumping crude to Asia. From the existing pipeline already feeding the eastern Siberian town of Angarsk and its large refinery, two alternative schemes have been designed. One, proposed by Yukos, would drive 2,400 kilometers into China's industrial Northeast, ending up at Daqing at a proposed cost of \$1.9 billion. The second, nurtured by the unavoidable Transneft, proposes to lay in 3,700 kilometers of pipe, to create what would be one of the longest pipelines in the world. The line would cut south into the most southern parts of the Russian Pacific coast, to the port of Nakhodka, where oil shipments could set off towards Japan, South Korea and the U.S. west coast.

These two costly projects, once opposed, have now been given the go-ahead. They will position Russia at the center of the global oil picture, while allowing the development of the untamed, still widely unexplored Eastern Siberian Basin.



### **Full Service**

A thriving oil and gas industry has to be accompanied by a strong service industry backbone, providing it with headache-free growth and flexible partnerships.

The need for oil and gas companies to valorize their assets and focus on financial management has been understood by majors worldwide. It triggered a divestment movement of in-house service activities in the 1980s, inducing the fast growth of oilfield-service companies. Russia, as with the rest of the sector worldwide, has followed the same pattern of evolution for its oil and gas service industry, but at a much faster pace, and today the industry is reaching a stage of maturity highlighted by the level of competition raging amongst the different service operators present on its market.

With \$3- to \$4 billion in turnover in the Russian oil-service sector, the cake is indeed appetizing. During the Soviet period, vertically integrated "production organizations" were in charge of oil production and had their in-house service companies. These oil majors initiated sharp restructuring programs in 1998-99, implementing new management standards, corporate governance guidelines and, as elsewhere in the global oil industry, started to divest their noncore activities, amongst which their service divisions. The main thrust of the reform process was to increase capitalization and reduce costs. This cost-optimization process, however, has not hit all Russian majors to an equal degree and business philosophies are sometimes radically opposite.

Yukos has, for instance, created a service entity that is separated from the company's main activities and is selling its services to a number of local companies, themselves competitors of Yukos. The major has also entered a strategic alliance with Schlumberger. Thanks to technological exchanges, staff training and field cooperation, the Russian major was able to cut its oil production costs by a third and to optimize its associated service entities.

The other majors are following the trend. Lukoil has also expressed its desire to divest part of its services, notably its drilling operations while it is relying more and more extensively on the services of external operators, notably leading local operator Petroalliance. Meanwhile TNK has also heavily divested its services, offering a string of acquisition opportunities to the industry.

In the meantime, Surgutneftegas is willing to keep its service operations in-house, claiming that this allows them greater security and reliability in the still noncompetitive service sector. It is reckoned that oilfield-service companies, both foreign and domestic, are today fighting for only 25% to 30% of the market, the rest being in the hands of in-house service divisions, hence leaving ample room for growth in the market in the years to come.

The strategic choice of keeping services or divesting them is a concern for the whole range of oil companies in the Russian federation. Many of the medium-size oil companies have chosen to keep their services operations and use their technical edge, nurtured through their operations on difficult assets, to develop competitive advantages that they can then market as a supplementary business to their oil production activities.

The likes of Tatarstan's Tanefteotdatcha, which has specialized in oil-recovery enhancement techniques with success following the appliance of these techniques on its own fields, are selling their services to companies throughout Russia, both small to medium-size, with occasionally larger customers as well as international sales.



"During a relatively small period of activity as independents, separated from state organizations with

Albert Shakirov, from Tatarstan's leading service and E&P company Tatnefteotdacha.

whom we were working previously, we have strengthened our competencies very quickly, due to the difficulties proper to our extraction patterns and the overall characteristics of our assets, in the face of rising levels of competition from local and global players," says Albert Shakirov, general director of Tatnefteotdacha, one of Tatarstan's leading producers and oilfield-service companies. "Today, our technical standards are high, and looking at the sharp increase in production levels in the last three to four years in the Russian federation, it is obvious that it has been a successful effort, notably for smaller players like us."

Producing in the range of 500,000 tones of high-viscosity heavy oil from its two licensed fields (Elginskoe and Stepnoozerskoe), the company also managed an average of 40,000 tones of production increase per year since the beginning of operations (1996 and 1999, respectively, for each field).

Tathefteotdacha also works throughout the federation where it has performed more than 2,000 production-increase operations that allowed recovery of more than 3 million tones of oil.

Its production increase techniques apply specifically to flooded reserves or reservoirs containing heavy fuels. Using more than 100 different technologies, of which nine are patented by Tatnefteotdacha (soon to be 14), the company also works in Kazakhstan and Vietnam, where reservoirs characteristics are close to that of Tatarstan.

Examples of small to medium-size companies with high technical levels of their in-house services abound, notably in Western Siberia and Tatarstan, but the cost of keeping those activities bundled to the companies' core oil extraction activities requires developing market niches, if not integrated service market shares. And on this front, serious competition from pure service companies is already well established, with both foreign and local contenders.



PetroAlliance equipment on a seismic mission.

#### **Global contenders**

Of these local integrated service companies who started competing with their international counterparts such as Schlumberger, Baker Hughes and Halliburton (also engaged in a strategic alliance with a Russian major, Tyumen Oil Co. aka TNK to work on the giant Siberian field of Samotlor), one Russian company stands head and shoulders above the rest. Petroalliance started operations in 1989 out of a Russian-U.S. joint venture engaged in geophysical surveys. The U.S. co-founder, Western Atlas, sold its stake following its merger into Baker Atlas (and after the 1998 financial crisis), but this didn't affect the company's growth and the expansion of its scope of activities.

Specialized in integrated services during the exploration and development phases—from seismic surveys to reservoir modeling and from well-logging, perforation and vertical seismic profiling to well repair the company has enjoyed a steady growth path. As of today, Petroalliance has been engaged in a large number of major projects mainly within the Russian federation.

"Since the very beginning we understood that we were in the service industry, and therefore we didn't want to become involved with the licenses and pure production side of operations," says Alexander Djaparidze, president of Petroalliance. "The sort of model we were looking at back then was Schlumberger. Today, Schlumberger is telling everyone in Russia that Petroalliance is its biggest competitor and we can effectively compare our operations to theirs, whilst when we started, Schlumberger was an unreachable model."

The company is now working closely with Lukoil, its de facto strategic partner, and has been engaged in operations in Western Siberia, the Timan Pechora region and on the Caspian Shelf. Nevertheless, the company's focus is and will be Russia, where the market potential is huge. It thrives on the successful development of a world-class sector, abiding by global standards of quality, competitiveness and strict norms of return on investment. Illustrating the maturity reached by Petroalliance is the cutting edge technology widely used by the company, which also has an office in Houston.

Looking at the costs of Russian service providers, believed to be lower by 20% to up to 80% when compared with their Western counterparts and competitors, it looks likely that soon Russian services companies could be entering frontal competition with Western service organizations. Yet Djaparidze is maintaining a realistic stance: "In any project we are to be involved in, we want to assess it thoroughly, particularly for other markets than Russia, because these are completely new markets for us. In any case, we wouldn't go where competition would be tougher for us like West Texas for instance!"

Another contender for global business to be watched is Zarubezhneft, Russia's public-sector operator dedicated to international operations. Zarubezhneft is very active in places traditionally or legally barred to U.S. players. The company is developing offshore fields in Vietnam (through VietSovPetro, a joint venture set up more than 20 years ago and extracting 3,000 tons of oil per day), Iran, Yemen, Algeria and Iraq.

The specificity of this organization is the complete package developed along with local governments, with A-to-Z design of not only production schemes but complete turnkey oil industries, from stateowned upstream E&P all the way to downstream operations, including refining assets. Here again, operating in difficult conditions, the company is able to rival with the world's best standards of services and is a name to be reckoned with in the world of oil and gas.

According to Nikolay P. Tokarev, general director of the company, "the experience accumulated over 35 years of operations is a great capital, but we are also glad to offer the investment security provided by our state-backing to any of our clients or partners. As the situation in Russia is now politically and economically stabilized and viable, this is a guarantee that can win us extra market edge."

#### **Unlimited opportunities?**

Some foreign players allied to the industry have also made successful forays in Russia as service providers. International Oilfield Equipment and Services (IOES) was established in Russia only five years ago, and today supplies equipment such as artificial lift systems, drilling rigs and production equipment to the Russian market. The company is also engaged in consulting services and recently started oil and gas field brokerage. Before coming to Russia, it was selling equipment in the U.K., Europe and North Africa.

"Today Russia represents 50% of our market and we managed to survive the crisis by keeping a well-scaled base of operations here," says Adam Grozier, IOES general manager for eastern Europe. "Local major companies need companies like us for capital purchases, but are also rather heavy and slow in their procurement processes. We prefer therefore to work with foreign companies, notably small to mediumsize, offering them a full-service package for their procurement, helping them through the certification pitfalls, contracts and financial procedures for their first deals until they are ready to go to the market themselves."

Assessing the service market, he rates the Russian service companies highly: In the field of integrated service, the competitive threat is coming from the local actors. "Their standards have been increased tenfold and companies like Petroalliance are up and coming players to be watched carefully. We worked in cooperation with them and their operations were reaching the highest standards of quality.

"For foreign players, market competition is rising and the margins are getting slimmer. Today, if you don't implement a Russian program in your company and cut costs, you cannot have a successful base for business in Russia anymore. But the market is huge and the future potential is vast."

When looking at a map of Russia, including the largely nonexplored eastern Siberian Basin, one may nevertheless arrive at the conclusion that the market is large enough for everybody.



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It took Northgas only 2,5 years, from March 1999 to September 2001 to erect the main facilities of the start-up complex and to establish a full production infrastructure.

For the last year gas production rate exceeded 3 billion cubic meters of gas and, in 2003, the company is planning to produce over 5 billion m3.



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### JSC Severnaya Neft (Northern Oil)



Russian Joint Stock Company Severnaya Neft (Northern Oil) established in 1994.

The company specializes in geological exploration, commissioning and development of new, small and medium-sized fields in the Timan-Pechora oil and gas province which is located in the north of Russia. Severnaya Neft holds development licenses for 15 oil fields with total recoverable reserves exceeding 874.0 million bbl (categories C<sub>1</sub> and C<sub>2</sub>).

The company's main fields of activity include:

- hydrocarbons production, refining and transport;
- prospecting for hydrocarbons and supplementary exploration;
- · drilling of development and exploratory wells;
- · application of enhanced oil recovery techniques at development wells;
- well workover and well remedial work.

From 1994 to 2001 Severnaya Neft's oil production has grown by more than ten times , the expected amount of oil production in the year 2002 is 10.8 million bbl.

The company is building it's own refinery plant in the central part of Russia (Oryol region) with the full annual capacity of 29.0 million bbl.

Severnaya Neft is a fast-growing and dynamic company with great potential on the crude oil market.

### **JSC Severnaya Neft**



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## Standing On Gazprom's Shoulders

*Russia's gas industry is at a turning point as independent producers clamor for market share and deregulation.* 

The Russian gas sector is a world of superlatives. Russia holds one third of the world's reserves—around 1,600 trillion cubic feet (Tcf) of gas—with potentially more hydrocarbons still waiting to be discovered in the eastern and offshore arctic regions. The country is also the planet's largest exporter, with 7.1 trillion cubic feet sold abroad in 2002.

A superlative production base requires a superlative actor. That is Gazprom. With outputs of 17 Tcf in 2002, it is the world's largest gas company, accounting for one fifth of global production and audited reserves of 30 trillion cubic meters. It is one of the largest investors in the oil and gas sector, with close to \$6 billion of capex.

The company is also engaged in expanding its export infrastructure, notably towards Turkey through the Blue Stream pipeline project, destined to transport up to 528 billion cubic feet (Bcf) under the Black Sea, and towards Poland and Germany through the Yamal pipeline.

Gazprom is also one of the most opaque, oversized and globally inefficient companies in the world. This dubious privilege has been noted by a handful of organizations in Russia, who have ventured into the gas business hoping to grab the benefits of an ever-expanding market, both locally and abroad. But this implies having to grow a business from scratch, and competing with a production, transportation and distribution monster which doesn't care much for its competitive environment, let alone rival operators.

The Russian market is divided between industrial customers, including the energy-intensive metal industry and the power generation sector, and household consumers. In effect, the former are cross-subsidizing the latter, with prices ranging from \$12.70 per thousand cubic meters for households to \$19 for industrial customers.

Russia's Federal Energy Commission (FEC) regulates domestic sales prices, thus Gazprom's claim that it is forced to sell gas below cost on the domestic market. This excuse is used to contradict the European Union, which complains that the company's sales to Russian industrial customers are at prices well below those Gazprom charges international markets, and are thus to be considered as hidden subsidies to industry.

The EU insists that the domestic sales price should be hiked up prior to Russia's accession to the World Trade Organization (WTO). The Russian side asks for reciprocity, whereby any attempt to liberalize the monopolized Russian gas sector would be mirrored by equivalent moves in the poorly, if at all, liberalized EU gas market (with the exception of Great Britain).

Experts say the EU may import up to 40% of its gas from Russia by 2020. It is not, therefore, surprising that many other actors besides Gazprom are eager to get access to such lucrative, long-term export markets.

But as of yet, the situation has not been favorable. Mattias Westman, director of Moscow-based Prosperity Capital



Farkhad T. Akhmedov, chairman of the board of fast-developing gas producer Northgas.

Management, a leading fund manager, explains: "Currently, Gazprom's ownership and dominance of the pipeline network, plus the distribution system, means that independent producers—essentially the now-private Russian oil producers—have little ability to sell their gas.

"While there is a system by which Gazprom takes the gas into its pipeline, it is barely used: the rates Gazprom pays for the gas are set

#### **Fast Facts**

- In 2001 Russia consumed 13.8 Tcf of natural gas while it produced 20.5 Tcf.
- In 2002, Gazprom produced 17 Tcf of gas.
- Exports go mainly to Europe, with Germany, Ukraine and Italy the main recipients.
- Total demand for the European Union is around 1.2 Tcf, of which more than half is covered by intra-EU production.
- The EU bought 220 Bcf of Russian gas in 2000, compared with 166 Bcf from Algeria and 150 Bcf from Norway.
- Forecasted demand will rise to 1.5 Tcf in 2010 and 1.8 Tcf by 2020, thus creating ample room for Russian export growth.
- Estimates indicate that the EU will rely on Russia for up to 40% of its gas needs by 2020.



Northgas' production base-the far north, indeed.

by the state and set at levels such that in many cases, it would make more economic sense to burn the gas extracted along with the oil, than to sell it."

This points to a common headache of oil and gas producers: Gazprom's reluctance to grant access to its pipelines and associated export capacities, chiefly because the pipelines are clogged with transit gas exports from Kazakhstan and Turkmenistan. This limits independent access to export resources in the name of regional politics.

#### Fatal attraction

Despite these fundamental difficulties, the economics of gas extrac-

tion favor a larger number of market players. Looking at Russia's oil companies, in terms of their capex and lifting costs, suggests that as opposed to inefficiency-ridden Gazprom, they could make comfortable margins. Indeed, they are already looking at this potential and lobbying for change.

Meanwhile, Russian major SurgutNeftegas (SNG) entered a pre-agreement with Gazprom for co-development of Gazprom's super-giant Urengoy Field, and is considering setting up an infrastructure for treating condensate.

The company already produces 40 million cubic feet (MMcf) of gas from 32 oil fields, largely used for power generation at the company's installations, notably supplying power to oil-production facilities. Lukoil

is also looking at power generation opportunities but still flares a large part of the gas it produces.

Independent gas players are gradually expanding their presence.

"At this stage, it is obvious for market operators as well as for Gazprom itself that the time for change has come. The company can't fulfill the needs of the domestic market."

—Valeri P. Sorokin, Soyuzgaz

Gazprom accounts for 88% of Russian gas production, large oil companies for 5.6% and independent gas producers are extracting 6.4%, or a volume of 28.9 Bcf in 2001. Projections of more than 45 Bcf were expected for 2002.

Independent gas producers, like their oil colleagues, feel the need to organize an association dedicated to their interests. Soyuzgaz vice president Valeri P. Sorokin explains: "At this stage, it is obvious for market operators as well as for Gazprom itself that the time for change has come. The company can't fulfill the needs of the domestic market, neither in terms of production, nor in terms of efficient supplies. Despite the fact that it is the richest gas company in the

> world by assets, it has ludicrous costs of production and there are still major problems in the sector. Gazprom is failing domestically and it is therefore only natural that private players are moving in."

#### Baby Gazproms

Competing efficiently and reaching the best standards of productivity, management procedures and HSE standards, the gas independents are now eagerly waiting for market liberalization, described by many as both imminent and unavoidable.

This liberalization is expected to be important on several counts. The first one is establishment of a gas exchange handling a part of the domestic market's bid offers and demand, where Gazprom and inde-

pendent companies can sell a share of their production (starting from around 5% to 10% at first and raising gradually) on a unified trading place.

# Beyond a name, unlimited opportunities





Nobel Oil is engaged into exploration and production in the Timan Pechora region of Russia with development of two oil fields producing 10,000 bpd. Its in house services include:

- Drilling, with over 20,000 meters per year
- Technical exploration and reservoir engineering
- Thermal technology

Nobel Oil will be happy to prove that, beyond its name – a recognized trade mark in the industry – it can offer opportunities for cooperation and partnerships.







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Flaring some of the country's future.

Directly deriving from this embryo of a spot market (to be fully set up this year) is the widely awaited break-up of Gazprom's monopoly, the one crucial move that would open the market and finally allow other producers than Gazprom to develop "freely." This breakup could take several different forms: dividing of production and transportation-distribution activities into separate entities, the latter remaining under some kind of state control (currently Gazprom is still 38% owned by the state), or splitting production activities into six or seven "baby Gazproms." These would compete on the market with the independent gas producers and oil companies, while the transportation and distribution activity would be split amongst the new, smaller offspring.

It is hard to envisage the Russian gas market in the years to come. But it is clear that besides the leading independent gas producers such as Itera, Novafininvest/Tarkosale or North Gas, which are steadily increasing production and gearing up for the next step in market liberalization, other players are also waiting for the right moment.

Many oil companies have enough cash reserves at the moment to

#### **Success Story**

The story of independent gas producer North Gas illustrates the potential for new gas-producing entities in Russia. It took this company only 2.5 years (March 1999 to September 2001) to develop its reserves from the Neocomian pools of its licensed North Urengoy Field (north of the West Siberian plain) and get them onstream.

A year later, the company produced 9 billion cubic feet (Bcf) of gas. It plans to produce 15 Bcf this year and 30 Bcf after beginning production in another part of its field, which is currently being developed. It also projects condensate production of 1 billion tons in 2003.

Using the most advanced technologies for drilling efficiency and well productivity, alongside the automation of production processes, and by relying on well-trained personnel in the fields and at its Moscow head office, the company has been able to develop its asset value 176 times from January 1999 to June 2002. This was achieved increase their gas production very swiftly. "A reasonable estimate is that they could be producing another 300 Bcf annually (20% of Gazprom's production) within three to four years, and estimates rise to between 480 and 600 Bcf (30% to 40% of likely Gazprom output)," says Westman at Prosperity Capital Management.

"This additional supply is more than the expected rise in demand from domestic and foreign consumers, suggesting that there is sufficient supply readily available as long as prices are high enough and customers are accessible."

Also waiting for the right environment are oil majors like Norway's Norsk Hydro, Finland's Fortum, France's TotalFinaElf and ConocoPhillips of the U.S. The latter two could be associated with Gazprom and Rosneft joint ventures, Sevmorneftegaz, in the development of the giant Prirazlomnoye and Shtokmanovskoye offshore licenses in the Barents Sea, as well as the Kharampurskoye, Vyngayakhinskoye and Etypurovskoye fields.

The Shtokmanovskoye Field is the center of attraction in the region. It is believed to be one of the world's largest gas reserves, with approximately 112 Tcf, of gas and 250 million barrels of condensate. It was discovered in 1988 but has not yet been developed, despite numerous foreign and domestic consortia's attempts to move the project forward. It lies about 600 miles northeast of Murmansk in waters some 1,000 feet deep.

At peak production and once the infrastructure has been set up (notably a 650 kilometer pipeline and a loading port in the Kola Peninsula), the field could produce as much as 20% of Russia's current daily gas output. The project is, however, developing very slowly, waiting for the PSA legislation to be modified and a fully liberalized spot market in Europe to be created.

Other major projects are, on the other hand, closer to reaching the development stage; notably Sakhalin 2, which plans the construction of the world's largest LNG plant to feed the Asian market from the Russian Pacific coast.

Rusia Petroleum, a joint venture involving majority shareholder BP, is also involved in connecting two giant oil and gas fields in Eastern Siberia to the promising Chinese and Asian markets. In spite of these two examples, Russia's future in gas exports still lies in Europe, where market security, high prices and increasing consumption are looking good for gas producers.

Despite those elements, Gazprom worries about Europe's gas lib-

#### with less than 300 workers, compared with Gazprom's 30,000.

But the early years weren't easy, as Farkhad T. Akhmedov, chairman of the board of NorthGas, remembers. "The banks, Russian and foreign, were very reluctant to give us access to any credit because we had neither access to pipelines, nor permanent longterm purchasing contracts and the risk, back then, was enormous. On top of everything, gas was sold at almost half the price of today. We started operations in September 2001, a time of crisis for everyone, and we met with many difficulties.

"But today, we are successfully up and running, with good potential for growth ahead. We have a second dome to put onstream in the course of this decade and are in discussions with companies who have licenses but lack the financial strength to develop them. We are now facing only external difficulties stemming from Gazprom's predominance on the market and from the lack of room that they leave for maneuver for independent gas producers like us." eralization perspectives, as a full-fledged liquid spot market could affect its capital investment plans for the development of new fields. Gazprom has long-term take-or-pay sales contracts with Europe, giving to the company a medium- and long-term financial viability as well as providing collateral for raising capital on international financial markets. These guarantees would disappear if long-term contracts are replaced by a pure exchange-based market.

The problem is also acute for small and midsize independent producers, and it's again the lack of export access that causes the most headaches, this time for failing to provide credit financing guarantees.

According to Leonid Mikhelson, chairman of the management board of gas investor and producer Novafininvest, "We don't have any problems as far as production is concerned. Our difficulties stem from the fact that the gas business in Russia is entirely calculated on the basis of Gazprom. Transportation costs, market prices and taxes are based on the economics of Gazprom, bearing in mind that their export sales finance their losses on the domestic market. Since we don't have access to export markets and sell only domestically, we have totally different economics. So for us, there are only two ways ahead: either significantly raising gas prices on the domestic market or allowing independent producers to export their gas at conditions that make it worth the effort. Otherwise, we can think about downstream schemes, such as the local refining of condensate, in our case, for the future production of polyethylene, polypropylene and PET."

Also in the Russian gas-project pipeline is a strong hike in gas prices that is expected to occur, raising them from between \$13 and



Northgas field production facilities surrounded by the Russian tundra.

\$19 per thousand cubic meters to between \$40 and \$45, which would help the independents to reach breakeven. Yet, in a year of parliamentary elections and 12 months before the presidential elections, this is a delicate and unpopular move. Many think that the bulk of the reform won't be implemented before the elections take place.

The Russian gas market is reaching a real turning point. Whether liberalization will be successful or not is a question on everyone's mind. But by virtue of its vast resources, Russia will remain at the center of the global gas picture for decades to come.



## Legal Dolls

A thriving oil and gas industry has to be accompanied by a strong service industry backbone, providing it with headache-free growth and flexible partnerships.

From the state of production-sharing agreements and taxation to pipeline-access rules, many questions remain.

The Russian-American energy summit in Houston last November confirmed the central position of Russia's oil industry in the global energy picture and the willingness of the world's major oil companies to invest in Russian oil and gas projects. But although Russians may argue otherwise, it still looks clear that without foreign investment—and its associated high levels of technology—mega-projects cannot be realized.

Yet, before committing to such investments, oil and gas investors require guarantees, particularly in a country that has only recently shown any economic soundness and political stability. There is general consensus among multinationals that the subsoil law governing the majority of oil and gas activities in Russia does not provide a sufficient legal foundation for large green-field exploration and production projects.

The only way to provide such guarantees is via production sharing agreements (PSAs) between the Russian state and investors. Creating a solid legal base for PSAs is a priority with President Putin but as of today, the international oil and gas community is still waiting to see his stated intentions translated into solid facts. A number of major projects, onshore and offshore, have been delayed pending legislative change. A number of others could be unleashed if adequate steps are taken, the accumulated value of which is estimated from \$65- to \$100 billion during the next eight to 10 years.

#### The investment effort

To date, three PSA investments are under way, including the two eastern projects of Sakhalin I and II and the Khariaga project in



Sakhalin Energy Investment Cos.' *Molikpaq* rig off the Sakhalin Islands.

the northern Nenetsky Autonomous district. These projects, now at the production stage, were signed prior to the promulgation of the existing PSA law, which dates from January 1996. This law has not been deemed satisfactory and only one project was signed in the seven years following its implementation.

To benefit from the PSA law, projects over 25 million tons of crude and 250 billion cubic meters of gas have to be included in an official list included in the subsoil law. To date, 28 projects for hydrocarbon development have been included in the list by government decree, while other projects are still being negotiated. Sakhalin III was, for instance, agreed upon in 1993 but is still waiting for the proper legislative move.

The most serious roadblock to new investments has been PSA taxation—there is still no specific PSA chapter in the tax code. The government had at first made a move that destroyed all tax benefits expected by any investor under a PSA regime. The Duma reacted by putting



Brian L. Simbler, senior partner of Lebouef, Lamb, Greene & MacRae.

forward a series of amendments and this long-awaited PSA chapter should be adopted soon. Looking at the latest work of Duma deputies and the moves expected by the oil and gas investment community, it could, or should contain these changes:

- A set list of taxes and charges should be established for PSAs and should then remain unchanged.
- The principle of full recovery of capital investment should apply under the renewed PSA regime.
- Depreciation and uplift should be excluded from recovery costs.
- A mechanism ensuring tax stability to PSA investors should be drafted, whereby any changes in the Russian Federation's tax regime further to the signature of the agreement should be compensated.

Further, a framework for governing the payment of royalties should be established, instead of production taxes as have been applied in the Russian Federation since January 2002, when the excise tax, the payment of royalty and the charge for replacement of the raw materials base were replaced by a unified tax based on production levels.

The proposed reform PSA has its critics, mainly from domestic oil companies. Yukos chief executive officer Mikhail Khodorkovskiy leads the resistance. He has called the PSAs detrimental to the country, and argued that foreign investors should work under the same tax regime applicable to domestic oil companies.

He also argues that PSAs should be the exception rather than the norm: "We propose a two-step process. When a field is proposed for development, there should be an auction process with the development scheme based on the national taxation regime. If no developer is found and the government still deems it necessary



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Major players are gearing up for Russia's northern gas fields.

to develop the field, then it should declare what privileges will be granted from the national taxation regime, and should commit to sign a PSA with any eventual participant. After that, the auction on PSA terms must be announced, openly and publicly."

#### Subsoil law, pipeline rules

Proposed law on underground resources was presented by the Ministry of Natural Resources last June, but a number of elements are not considered satisfactory enough to provide security to PSA investors.

Under the proposed code, the government reserves the right to identify the list of strategically important minerals, with a preferential right to buy such materials. This could interfere with the rights to subsoil areas conferred by the license delivered with a PSA. It is therefore necessary to establish mechanisms where the investor will be guaranteed unconditional rights on the use of a subsoil area and the "strategically important minerals" it contains.

Access to pipeline capacity is one of the most acute points of controversy for the oil and gas industry in Russia. The mineral resources code and the law on natural monopolies have established the principle of fair access to the trunk pipelines for users of underground resources, as well as regulating tariffs.

It guarantees access to the Transneft system, but the law is ambiguous. According to Charles Keefe, senior partner at law firm Coudert Brothers, "As currently drafted, these laws present an unacceptably high risk of government interference in ways that would make pipeline projects not economically viable. Thus PSA projects with significant pipeline infrastructure components, which include most PSA projects, cannot go forward until those laws are amended."

The appetite for reform is pervasive. Says Brian l. Zimbler, senior partner at law firm LeBoeuf, Lamb, Greene and MacRae: "There is gradual improvement in the legislation. Although delays are occurring in the PSA law, the subsoil law is being reformed, as is the civil code, procedural code, and we are now entering the drafting process of a third version of the bankruptcy law.

"Nevertheless, the situation is getting worse in some instances, due to the lack of sophistication of Russian justice courts and we are worried by recent developments that demonstrate the unwillingness of these courts to refer disputes involving foreign investors to international arbitration."

#### **Delays Cited**

Because of widely expected changes in the legal framework, notably governing PSAs, a number of abnormal situations have arisen, including delays in development. For example, Salym Production and Development (SPD), a joint venture of Sibir Energy subsidiary Evikhon and Shell, for development of the Salym group of fields in Western Siberia, has been delaying work on these fields pending PSA tax legislation.

SPD risks missing the timeframe set by the local license committee for first oil to be produced by 2004, and thus risks losing the license altogether.

Sibir Energy, faced with the unwillingness of its partner, decided to go ahead with the development of upper Salym as a sole-risk operator, and is now well advanced in the development of the field with six wells about to be brought onstream. A rail export terminal is in its final stages of completion.

SPD has also been conducting development work on West Salym, a larger asset. Sources indicated that Shell is now willing to go ahead with the development of both West and Upper Salym without PSA changes, but early indications are that the deadline set by the license term will not be met. CRUSHING DILEMMAS...

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