



EUROPEAN  
UNIVERSITY AT  
ST. PETERSBURG

# ENERPO Journal

March 2013  
Volume 1  
Issue 1

The *ENERPO Journal* was established in 2013 and is a publication put out by the Energy Politics in Eurasia (ENERPO) program at European University at St. Petersburg. The goal of *ENERPO Journal* is to bring exposure to the ENERPO program and shed light on the latest developments in the oil, gas, and renewables industries in a way befitting both expert and casual readership. Contributing authors are primarily students and faculty with the occasional outside expert writer.

*Workshop Series* is a program hosted by European University in which leading energy professionals are invited to present on a specific aspect of their work. These professionals include energy think-tank experts, policy makers, representatives from major energy companies, and ranking members of international organizations. *Workshop Review* is a subsection of *ENERPO Journal* where students relay the content of these presentations and provide commentary.



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## Overview of Gazprom's Competition on Russia's Domestic Gas Market

- Nicholas Watt

After years of monopolizing the European gas market, Gazprom now finds itself on the defensive. Developments such as the highly publicized arbitration cases and billion-dollar rebates have the Russian gas giant sweating and its critics reveling. Such critics proclaim that the end is in sight for Gazprom's age of dominance and that its strong-arm tactics and inflexible contracts have become incompatible with the liberalized European gas market. While these proclamations are just predictions, raw data show that Gazprom's European sales are indeed dropping. Naturally, Gazprom is doing all it can to avoid the doom its critics envision and is fighting to regain its lost market share. This war, however, has two fronts, and the domestic front is often overlooked. If Gazprom's market share in Europe does not hold up, it may not have its domestic customers to fall back on. Russia has the world's largest gas reserves and other Russian energy companies, not named Gazprom, are cashing in on this natural resource advantage. Russian law precludes these NGPs (non-Gazprom producers—a term used by James Henderson of the Oxford Institute of Energy) from selling abroad and so this gas stays in Russia, sold on the Russian market. With NGP gas production on the rise and the increasing liberalization of the domestic market, Gazprom's quasi-monopoly is at risk at home.

Russia boasts the second largest gas market in the world behind the US and has burned an average of 467 bcm (billion cubic meters) per year from 2008

***In 2012 Gazprom held 73.9% of the domestic market—a far cry from its 2000 mark of 90.5%***

to 2012. Roughly half of Russia's total gas consumption is accounted for by the industrial and power sectors and it is in these two sectors that the market has experienced the most significant shakeup. Of the yearly 225 bcm consumed by the industrial and power sectors, 65 bcma is contracted out to NGPs by 2015 and an additional 89 bcma will be up for grabs after the expiration of nearly half of Gazprom's contracts with these customers. This means that in the unlikely event that all of these customers decline to renew their Gazprom contracts in 2013, 69% of Russia's premium gas consumers will be supplied by NGPs. The industrial and power sectors are premium gas buyers because they pay more frequently and at higher prices than their residential counterparts.

How has this happened and which NGPs are doing it?

The Federal Tariff Service sets the price at which Gazprom sells to the domestic market. The process of raising this regulated price has been under way since the mid 2000s, but only after 2009 did Gazprom finally turn a profit on domestic sales. This trend of higher prices served as an impetus for NGPs to increase production; and the two that have capitalized most on this opportunity are privately owned Novatek and state-owned energy giant Rosneft. By 2010 Novatek was producing double the amount of gas it had four years prior. 2011 data show that Novatek's production was 53.5 bcm, with Rosneft trailing slightly behind at around 45 bcm. After those, the drop-off is steep: Lukoil produced 15 bcm, Surgutneftegaz 10 bcm, and Gazpromneft 7 bcm. The remaining gas production amounts to approximately 30 bcma produced by other oil companies both Russian and international, none of which is significant enough to note here. Of all domestic production in 2011, NGPs accounted for around 160 bcm compared to Gazprom's 513 bcm. In 2012 Gazprom held 73.9% of the domestic market – a far cry from its 2000 mark of 90.5%.

It would be a mistake to assume these figures spell complete doom for the gas giant. Gazprom still remains Putin's favorite son and deeply protected within the womb of the Russian government. All chil-



dren, however, must grow up. One of Gazprom's most prized toys is the Unified Gas Supply System (UGSS), the domestic pipeline system over which Gazprom enjoys full control. Despite 1999 legislation mandating the allowance of third party use of the UGSS, Gazprom has repeatedly refused these other suppliers pipeline capacity, failed to deliver contracted gas, and declined to divulge data concerning the system. In a speech to German television audiences in 2009 Putin supported greater liberalization: "we are seeing it as our goal to provide our gas producers with more liberal access to Gazprom's pipeline system." These words were backed by action with the order of a presidential commission to investigate claims that Gazprom was blocking independent access to its pipelines. Within a year of his speech on German television, Putin issued another statement on the issue, this time as a reproach: "Gazprom must treat the development of the infrastructure that helps provide the energy sector with gas as responsibly as possible... if [Gazprom] proves unable to cope with all of these tasks it means we will have to involve other companies." Putin's public sentiment created a domino effect by which many in the political elite, including former Energy Minister Sergei Shmatko, fell in line with similar statements. The courts soon followed suit. In a 2012 case brought by the FAS (Federal Anti-monopoly Service) against Gazprom involving the refused access to already agreed upon capacity, a Moscow arbitration court upheld the FAS's decision that Gazprom was "abusing its dominant market position". The FAS has received so many similar complaints against Gazprom that it submitted a bill proposal to the Duma addressing the issue. The level of support for this bill is still unclear.

### ***Gazprom, Novatek, and Rosneft currently relate to each other with a fickle combination of competition and cooperation***

The loosening of Gazprom's grip over the UGSS has been one of the reasons for NGP success. Another reason is that these companies offer more

flexible contracts than Gazprom. After power company E.ON replaced Gazprom with Novatek in a \$22 billion deal, company spokesperson Anna Martynova said simply that Novatek "offered better terms" than Gazprom and its competitors. Novatek has reported that its contracts use a pricing mechanism that makes adjustments based on monthly consumption and does not penalize for dropping below a prescribed annual consumption mark. Rosneft, in its own right, has been successful at wooing new customers with lower prices. Upon completion of deals with E.ON and Fortum, Rosneft reportedly agreed to terms to sell gas below the regulated price with discounts amounting to 11% to 2% of Gazprom's price. Rosneft's prices were so favorable that it stole one of Novatek's largest clients, INTER-RAO, a state-owned power generation company, in a 25-year deal worth over \$80 billion.

There is, however, an additional factor whose effect is more difficult to quantify—the political connections of these NGPs. Two billionaires, Leonid Mikhelson and Gennady Timchenko together own over 50% of Novatek and represent a controlling interest in the company. Timchenko and Putin worked together in the 1990s and opened judo-club, Yawara-Neva, in St. Petersburg in 1998. Amid widespread speculation, both men vehemently deny all allegations of corruption in the amassment of their respective fortunes. Putin's administration granted Novatek massive tax exemptions without which the capital intensive Yamal LNG project would not be economical. It would be cynical to assume these tax breaks were a result of cronyism, but naïve to believe these breaks came without strings attached. In a Nov. 19<sup>th</sup> 2012 announcement Putin publicly called on Novatek to team up with Gazprom in the Yamal LNG project. Less than two months later, Gazprom announced that a joint venture between the two gas producers was to be established in the Yamal peninsula. Cooperation is further explained by the fact that Gazprom owns a 10% share in Novatek.

Rosneft's political clout has a different structure; it is state-owned and its CEO is Igor Sechin. When Putin was deputy mayor of St. Petersburg, Sechin served as his first chief of staff in 1994 and has held various



posts under him ever since. Sechin is widely considered one of Putin's closest allies. Moreover, as a state-owned company, Rosneft would naturally have competitive advantages over private companies.

At the moment, Gazprom, Novatek, and Rosneft currently relate to each other with a fickle combination of competition and cooperation and it is unclear by what mechanism their interaction is governed. It is because of this ambiguity of leadership that "NGP" is an appropriate designation for Novatek and Rosneft. The term "independent gas producer", which is often used in the press, implies each of these companies possesses sovereignty in its decision-making. Such an implication would be misleading: Novatek is partially owned by Gazprom and appears to act in cooperation with it while Rosneft is owned by the same entity that controls Gazprom, the Russian state. Amidst this uncertainty two indisputable facts are at our disposal: these companies produce gas and are not named Gazprom, so we have the term "non-Gazprom producer".

The recent trend of consumers switching to NGPs suggests that competition does exist, and the NGPs' respective production forecasts indicate they are gearing up for more. Novatek projects that by 2020, NGPs will roughly double their production to 300 bcma and by that same year, Gazprom projects its own production will increase to 660. If you consider that 2012 gas production in Russia was slightly below 700 bcma, and juxtapose that with the prediction that Russian and European demand will remain roughly the same, then where will all of this extra gas go?

President Putin has said that by 2017 domestic gas prices will reach the European netback level, which is defined as the amount European customers pay after adjusting for transportation costs, transit tariffs, and export taxes. Though netback parity has yet to be achieved, Russian prices have been steadily increasing and importantly for gas producers, have become profitable. In 2009, the same year Gazprom made its first profit off the domestic mar-

ket, Novatek boasted a 30% net profit margin selling at prices that were significantly below European netback. If Gazprom and Novatek produce nearly the amount of gas they project, the market will be flooded, which in a free market would have the effect of pushing the price down. The Russian gas market, however, cannot be considered free, despite experiencing considerable liberalization. As such, the direction the price goes will go a long way in telling us the extent of this process and more specifically about the level of actual competition among Russian gas producers.

There are two scenarios: the price goes up or down. If the price continues to climb, then the NGPs, which are not bound to the FTS' regulated price, will undercut Gazprom every time and continue to steal market share. If not, then it will be a sign these gas suppliers are colluding, holding the domestic market hostage to unnecessarily high prices. On the other hand, if the price starts to fall, then it will be the result of competition. Novatek has already proven that selling gas at well below European netback levels can yield handsome profits; is it unthinkable to expect a similar level of efficiency from Gazprom?

This question has already in part been answered by the FTS' announcement in March 2013 that for the first time in years, the quarterly gas tariff will go down. It remains to be seen whether or not this price drop is temporary. In all likelihood, the news was not well received by Gazprom managers, who will see this as another sign that it is time for some serious company-wide belt-tightening. ♦

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## Assessing the Conduct of Russia's Eastern Gas Strategy

- Maurizio Recordati

The visit of Xi Jinping to Moscow—the first foreign tour of the Chinese president—may have brought Moscow and Beijing closer to signing a long awaited agreement on deliveries of Russian gas to China. By the terms of the Memorandum of Understanding (MoU) of 2006, the two countries provisionally agreed on a 68 billion cubic meters (bcm/y) trade deal through both an 'Eastern' and a 'Western route'. Since 2006, the two sides had been negotiating grand trade volumes, but, given that their views on the pricing formula diverged, a conclusive deal was never inked. However, on Friday 22 March, Presidents Xi and Putin signed a memorandum for annual deliveries of 38bcm/y starting in 2018. Once more, Gazprom is hoping that a final compromise on prices will be found within the next few months and optimism has been displayed in this regard. Is this time for real? From a merely economical point of view, this would mean that Gazprom is considering making great concessions to its Chinese counterpart, as it would drop any pretense to the equal profitability principle with the European markets. Hence, were the deal to be inked, one may come to the conclusion that political considerations of Gazprom's major stakeholder—the Kremlin—carried significant weight during the dialogue, so much that a final agreement may be reached without the wholehearted conviction of Russia's gas major, to say the least. Sure enough, a major gas trade deal with China would represent a landmark in Russia's Eastern Gas Program, as well as in her economic history.

### Inconclusive Negotiations

Since 2006, Gazprom and CNPC had been involved in inconclusive negotiations, which were hindered mainly by disagreements on three main issues—the pricing mechanism, the route of the first pipeline and the access to upstream assets.

For her part, Gazprom had been supporting the only project it could achieve relatively cheaply and

easily, i.e. to supply Western China with 30bcm/y through the 'Altai pipeline' while tapping gas reserves directly from West Siberian fields, the same sources for deliveries to the European markets. Russia was aiming to play China against Europe by creating arbitrage potential. However, planners in Beijing never felt the urgency for supplying the Western part of the country with Russian gas, as the region is scarcely populated and industrialized, as well as because it enjoys the geostrategic advantage of being located in proximity of Central Asia's well-endowed, landlocked countries. Instead, Chinese negotiators long favored an Eastern route, which would involve the sourcing of gas from East Siberian fields and delivering it to the energy thirsty Pacific coast.

Furthermore, the high netback oil-linked prices offered by the Russian counterpart—that is to say 'European prices'—would not satisfy the Chinese, who would rather have pegged gas prices to cheaper coal. As a result, they remained separated by a wide divergence between price preferences—\$200-250 per 1,000 cubic meters versus \$350-400, or \$2.8/MMBtu at the minimum.

A third non-negligible obstacle for the deal to be inked was the unwillingness of Gazprom to allow its Chinese counterpart access to upstream equity—a model CNPC and Sinopec have followed throughout the world. In this respect, Turkmen competitors have proven to be far more accommodating, so much so that the development and construction of the Central Asian gas pipeline was completed in a mere 24 months, as Chinese capital was conditional on a prominent role in the development of its upstream assets. It is no surprise that Turkmen gas is already feeding China's backbone import infrastructure, the West-East pipeline, with incremental volumes of gas. Gazprom's sit-and-wait strategy did not bear fruit thus far. It thought it could eventually export both West and East Siberian gas through both proposed routes, thus continuing to dictate prices and volumes to Asian markets, as it long did in Europe. Today it is bitterly discovering that we are living in a buyers' market, one of growing and increasingly diversified supplies.



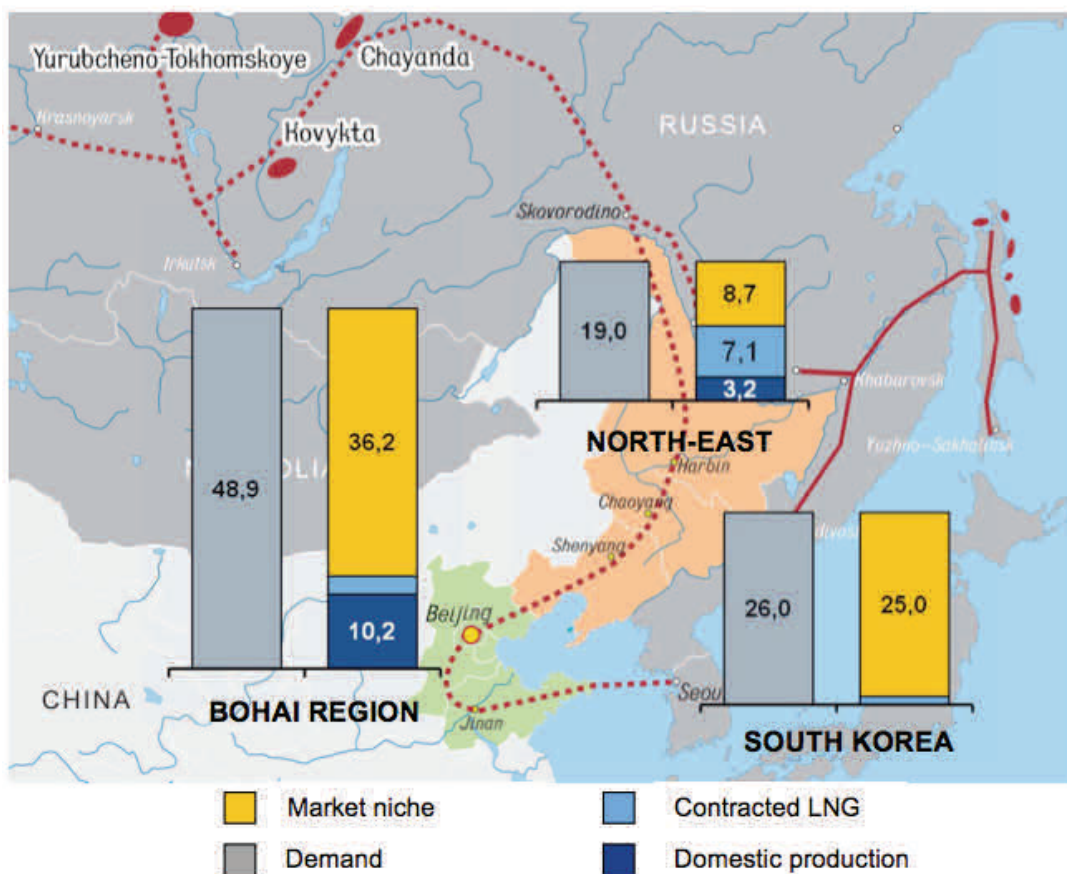
### On the Demand Side, Mostly the Chinese Niche

Before assessing Russia's upstream options for supplying the Chinese market, it is worth briefly illustrating some of its features. It should be noted in passing, although it is oft neglected, that South East Asia is growing as yet another LNG-consuming region, one that may become vital for the very success of Russia's Eastern Gas Program. Whereas, quite typically, observers focus on the triad China, Japan and Korea as the main targets of Russian deliveries to the east, it is the Asian continent—mainly Asia-Pacific and Southern Asia—that is driving world gas demand up. Asia's LNG demand will account for 80% of the world's demand growth through 2035, while her gas demand should surpass that of Europe in 2035 (29% vs. 28% of global gas demand outlook).

In Russia's circles the refrain often goes: "Asia-Pacific markets mean much a bigger pie than just China". This is—quite obviously—true, as Japan and South Korea figure as first and second among world gas LNG importers respectively. And for the years following the Fukushima disaster, it seemed that Japan gas demand would skyrocket, although the current Japanese government declared it would seek to reverse the commitments to phase-out nuclear power generation. Nevertheless, the Eastern Gas Program's first target is clearly the Chinese market, for it is the only one capable of absorbing most of the huge volumes that Gazprom will need to bring to the markets, as they will necessarily try to achieve economies of scale.

China's energy demand is on the rise and gas is becoming increasingly important. Even though it is relatively expensive with respect to coal, its share of total energy consumption has grown steadily in the last 20 years.

**Figure 1. Market Niches in North-East China, Bohai Region and South Korea by 2030**



Source: Cedigaz, SKOLKOVO Energy Centre



True, in the short- to medium-term gas would never win a straight competition on cost compared to coal. However, the latter resource is no longer as inexpensive as it used to be, for cheaper alternative fuels have appeared and China has become a net importer of coal.

Most importantly, China's environmental policy has taken a more decisive turn in the direction of reducing air pollution in big cities, thus aiming at curbing coal demand whereas natural gas offers part of a solution. In 2010, gas accounted for a mere 4.3% of China's energy mix, but according to the 12th Five-Year Plan it was targeted to reach 8.3% in 2015 (260bcm), it is to say double the country's primary energy consumption of 2011. Projections of China's future demand for 2030 vary within the range of 390bcm (baseline gas balance) and 500bcm (maximum gas balance). Sure enough, it is a market where any relevant gas producer will want to find himself in a comfortable position within the next decade, as it may account for up to a third of global gas demand growth between 2012 and 2030, according to CNPC's estimates.

Mostly LNG and domestic production—both conventional and unconventional—will cover the demand. Sinopec and CNPC sources have argued that the future increases in domestic shale gas production—to be expected in the range of 50 to 150bcm by 2030—will not negatively affect gas imports. Rather, they will increase gas consumption tout court, for that gas will still be sold under regulated prices. Consequently, incremental Chinese shale gas production may even increase the level of imports by an additional 10bcm.

Now comes the key piece of the puzzle—existing contracts and domestic production should cover the demand until 2020-25, when a niche of 26bcm should open up, gradually expanding thereafter to a level of 66bcm in 2030. The most interesting regions for Russian gas are the North East and the Bohai (Beijing), which should have respectively 8.7bcm and 36.2bcm of market niche available.

Russia will face increasing competition to fill these gaps. Central Asian producers may maintain the upper hand on the Western regions of the country, thanks to their pipeline connections. Little or no contracted space is there to be found.

LNG suppliers, on the other hand, are lining up to supply the most appealing and energy hungry markets of the coast belt, where landed prices have surpassed those of Western Europe and almost match those of Japan and South Korea. In addition to the incremental volumes deriving from today's main suppliers—Australia and Persian Gulf countries—starting from 2018, new fierce competition is expected from Mozambique and East Africa, Canada and perhaps from the US—although we maintain that, if available, such American volumes would probably be directed to Japan and South Korea in first place. Myanmar will have little part of the cake too, as the Sino-Burmese pipeline will start delivering to Southern China 10bcm/y by May 2013.

To understand what may be left for Russian gas is to answer a million dollar question. Beyond economic considerations on prices and cost-structure, which we will touch upon further, it is worth recalling that China cannot afford relying excessively on LNG supplies. The heavy dependence on seaborne oil and gas trade is a specter for central military planners in Beijing, for whom the "Malacca Straits dilemma" is tantamount of a codeword for "Seventh Fleet", the capacity of the US to project power in the Western Pacific being the actual security threat. China might thus be willing to pay a slight premium to secure pipeline supplies, thereby diversifying away from the seaborne routes. Moreover, for as much it had thus far been prone to resort to Central Asian gas supplies and given the uncertainty of the politics of the region, Beijing may in a near future start perceiving Russian piped gas less as a strategic threat but rather yet another valuable source for diversification. Nonetheless, there is a sense that, until now, China has been prioritizing LNG over pipeline supplies.

Gazprom has been trying to smoke out China by proposing deals with Japan and South Korea, but Beijing has so far kept a straight face. South Korea, for



her part, has a poorly diversified import portfolio, as she accounts for 80% of her gas supplies on LNG from Qatar, Oman and Malaysia. A 'peace pipeline' connecting her to Russia via North Korea, the Trans-Korean gas pipeline project, sounds nowadays little more than a fantasy, but LNG deliveries from Sakhalin are an option to contemplate, even more so given that Korean landed prices rank among the world's highest—provided they will remain this appealing for years to come—and because of Seoul's urge to overcome the above-mentioned energy security challenges.

The other natural exit for a relevant share of LNG export would be the Japanese market. A MoU has been signed at the APEC summit in September 2012 with Japan's Agency for Natural Resources and Energy. However, Tokyo's utilities look ever less willing to pay oil-indexed prices for Vladivostok LNG, as they are no longer allowed to pass on their rising operational costs to consumers. Therefore, they are considering the possibility to resorting to coal, but mostly remain hopeful that—someday between 2016 and 2017—they may start importing US LNG from at least one or two of the three LNG export projects they have applied for and which are currently under examination of the American Energy Department. In the meantime, they carry on searching for appealing equity stakes in the US upstream.

### **Russia's Eastern Gas Program**

The Eastern Gas Program is a grand plan to develop and bring online the vast gas endowments of the East Siberian and the Far East regions of Russia. Since the area is underdeveloped, Gazprom will essentially be starting from scratch, thus developing greenfield projects, building the pipelines to connect them to the prospective markets and starting natural gas production.

The program is state-run and aims at unleashing the great natural potential of the area and promoting its gasification, whereby bringing socio-economic benefits to the region and improving the country's balance of payments by expanding into Asia-Pacific markets. Gazprom is officially the 'Program Execu-

tion Coordinator', while several questions remain about possible discrepancies between the economic logic it should be adopting and the political results it has to deliver on behalf of the state—or yielding to pressures from it.

***For the flexibility it will provide, Vladivostok LNG is devised to play a key role in Gazprom's strategy.***

In essence, the plan is to connect the gas and condensate fields of Chayanda, Kovykta, and other smaller plays, to the existing Sakhalin-Khabarovsk-Vladivostok pipeline by a new dual pipeline system by 2017. Another long pipeline project would connect the East to Tomsk and Russia's Unified Gas Supply System, therefore completing a gas pipeline equivalent of the 'Trans-Siberian Railway'—although this section looks hardly realizable in the medium- to long-term. For its part, Vladivostok has been selected for the installation of a new liquefaction terminal, from which Gazprom plans to export 10mt/y (14bcm) by 2020, targeting first and foremost the Japanese market, along with other Asia-Pacific countries. The Chinese market would be supplied mainly by piped gas. The 'Western route'—the Altai pipeline (30bcm/y)—having thus far been discarded as an option, has led to greater commitment to the 'Eastern route,' which would feed into China's North East with 38bcm/y. Moreover, there are other plans to connect Russia's upstream to Japan or South Korea by pipeline, although currently these seem hardly workable.

By combining several sources of supply, different transit routes and a host of market options Gazprom is excogitating a well-articulated, flexible and scalable program, its strategic tenet being to supply China with a sizable volume, while avoiding falling into a monopsonistic trap, i.e. remaining captive in a relationship with her as a single dominant buyer. Thus, for the flexibility it will provide, Vladivostok LNG is devised to play a key role in Gazprom's strategy, as it will create much-needed swing capacity—although

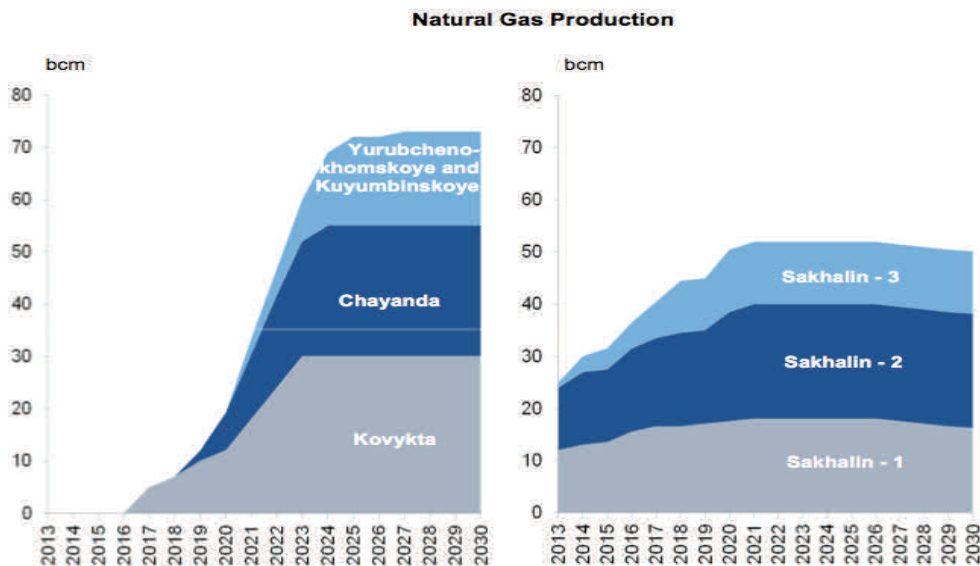
not a remarkable one, such as that which the Altai pipeline would generate.

In the best-case scenario, by 2020 Gazprom may be able to produce as much as 70bcm/y and export 55bcm/y, both from East Siberian and the Far Eastern fields—the combined output of Kovykta and Chayanda may reach up to 20bcm/y, while Sakhalin I, II and III should be producing at full steam 50bcm/y. Nevertheless, when it comes to Eastern gas production, problems never lay on the volume side, but rather in the economic viability of their extraction and shipment out of those inhospitable areas to far away markets.

problem remains. On the other hand, East Siberian fields, particularly Kovykta, hold remarkable amounts of helium. Finding an optimum location for installing the gas processing plant and bringing the byproduct to the world markets will be critical for making Gazprom's project economically viable.

The Russian state, too, will need to play his part, as export taxes will necessarily need to be cut at the minimum. The current 30% duty is perceived as a great hindrance for all of the volumes to be produced in Russia's farther gas frontiers.

**Figure 2. Expected timelines for bringing into production East Siberian and Sakhalin fields**



Source: Cedigaz, SKOLKOVO Energy Centre

The CAPEX required is one of huge proportions and it is commonly acknowledged by Russian experts that the cost structure of the projects, particularly of those located on the Asian continent, falls short of being competitive. Cost-effectiveness should be pursued rigorously at every stage of the chain, from the development of the field, the building and maintaining of infrastructures, to the gas production. Particular attention should be paid to the costs of the pipelines and the related corruption for, as the ironic quip goes, "Russia is the only country in the world where energy companies consider pipelines profit centers." That is far from being true, Russia is certainly not the only, but the

Before developing the Eastern Gas Program, Russia will have to secure a market share of such a size as to justify its staggering costs. As previously mentioned, the Chinese market niche is the first and foremost target and would start opening up between 2020 and 2025, by which time market demand should reach a level of 26bcm. In 2030, the gas demand gap should grow as high as 66bcm. On the supply side, by 2020 Gazprom should have developed an export capacity of 15bcm/y from continental fields (Kovykta and Chayanda) and 40bcm/y from Sakhalin Island. By 2030, Russia's Eastern export may reach as high as 68bcm/y in East Siberia and 40bcm/y in Sakhalin (SKOLKOVO Energy Centre, 2012).





Hence, Gazprom should still have some room for placing its volumes in the Chinese market. The question will be—how proficiently is it going to compete against the scores of new suppliers mentioned above? Not only do most of them have lower production costs, but also many seem to run faster and are likely to get to the finish line first. For their part, the Siberian fields are not expected to start production before 2016 (Kovykta) and 2018 (Chayanda), while Sakhalin II is the only LNG project currently online (13bcm/y), Gazprom expects to start production at Sakhalin III in 2014, for about 5bcm/y. As Russia lags behind, the niche will inevitably be shrinking. By 2016-18 new waves of LNG supplies should already be competing on the Asia-Pacific shores and many in Moscow would turn pale facing the prospect of US LNG volumes being dumped in Asia at Henry Hub-indexed prices... And yet, however pessimistic the views of several experts, and however it might seem we are moving in the direction of a buyers' market plentiful of supplies, Asia's appetite for natural gas may exceed expectations and the remaining countries, beyond China-Japan-South Korea, might still offer additional attractive market opportunities.

### **An LNG strategy for Russia?**

Following to the domino effects generated worldwide by the shale gas revolution in the US, Russia finally had to acknowledge the importance of LNG in today's world. Until recently, Gazprom had been staunchly favoring pipeline projects over seaborne transportation. As Vladimir Drebentsov, an expert of the EU-Russia Gas Advisory Council, puts it, "Gazprom's strategy has historically focused on two things, developing giant gas fields and exporting this through huge trunk pipelines to external markets. This model has worked quite nicely, till very recently. Being an export monopoly it has not felt any competitive pressure and lived comfortably with that model" (EER, *The uncertain future of Gazprom: the moment of truth is approaching*, 24 January 2013). While the share of LNG trade was rapidly eroding that of piped gas in the world gas trade (leaping from 22% to 33% in the 2004-2011 period), Gazprom was sitting on few options, namely, the castle in the sky of the Shtokman project, and Sakhalin

II—its only LNG terminal, in which development it played an irrelevant role, as it took the lead of the consortium only after the project was completed under the operatorship of Shell. Hence, in mid-February President Putin specifically called for expanding Russian LNG trade, so to seize a larger share than its current mere 3.6% of the global markets.

As the Asia-Pacific region is extremely attractive both in terms of volumes and LNG landed prices, it offers Russia the opportunity to emerge from her hibernation. Today, Japan and South Korea display the highest LNG prices globally, but it is worth noting that even China's pacific coast markets became increasingly appealing, as their prices are already just below those of the two neighboring countries. Furthermore, Beijing is testing the waters to establish more market oriented pricing mechanisms and move away from the prevailing cost plus model—a pilot reform is underway in the two coastal regions of Guangdong and Guangxi. Under the new scheme, prices will be calculated based on the price in Shanghai, which is already linked to international prices of fuel oil and liquefied petroleum gas. Such measures are designed to stimulate both domestic production and imports.

The competition in North East Asia grew at such high levels that it stimulated the appetite of a growing number of interested suppliers from the Middle East, Australasia, North America and the promising frontier of East Africa, where recently CNPC purchased from ENI a 20% stake in the richly endowed Rovuma Basin, Mozambique. But even more interesting, it spurred a new export rush among Russian producers, so much so that the two major competitors of Gazprom—Rosneft and Novatek—are now lobbying for putting an end to the gas colossus' monopoly on exports by seaborne routes. Unlike Gazprom, the two competitors do not rule out the possibility of ceding equity stakes to Asian companies—this is not a little detail for Chinese buyers.

Thus, it would not be surprising if in the near future Moscow would yield to their requests and adopt suitable measures to unleash a bigger part of Russia's huge export potential. On this matter, the views of the White House and the Kremlin may find a point of



convergence, provided that the newcomers will not get in the way of Gazprom, which will already be encumbered with its 'noble cause'—the social-economic duty of developing Eastern Russia. Thus, the tough competition they are scaling-up on the domestic front should not be allowed abroad. The Energy Minister Novak will submit a scheme for a partial liberalization of the gas export within the coming month and President Putin will have the last word.

Concerning Novatek, it holds important deposits on the Yamal peninsula and has formed a partnership with Total for an LNG export terminal with a capacity of 16.5 mt/y. North East Asian companies are eyeing closely the possibility for direct involvement, while Novatek has declared that it is expecting to supply Asia and Europe in approximately equal portions. However, Asia-Pacific markets will not be supplied from Yamal on a year-round basis, as the Northern Sea Route is free of ice only two months per year. It is yet to be seen whether Novatek will have free hands for exporting the remaining available volumes in a westward direction. Perhaps it may be allowed to market in the Spanish sector, the only big European market not being supplied by Gazprom.

For her part, as a means of diversifying her options, Gazprom has started discussions with Novatek, in view of forming a new partnership to build up integrated capacities in the Yamal Peninsula—the production capability of the LNG terminal would be equal to that of the Novatek-Total project and a final investment decision should be signed by the end of 2013. In mid-February, Gazprom also approved the project of a 15 million mt/year LNG plant to be built near Vladivostok, with the first volumes to be marketable as soon as 2018.

To complete the picture, Rosneft is eyeing directly and exclusively the Asia-Pacific, as she intends building an LNG export terminal for her Sakhalin I project in partnership with ExxonMobil. It is noteworthy that Rosneft's Chairman, Igor Sechin—allegedly the most influential man in Russia's energy sector after President Putin—advocated only the liberalization of *offshore* LNG export, a solution which

would allow Rosneft to market her volumes directly to Asia, while leaving intact Gazprom's exclusive right to market Novatek's Yamal LNG. Needless to say, at such conditions the business would make much less economic sense for the private gas producer.

The growing appetite for LNG exports of Novatek and Rosneft poses threats to Gazprom, but allows the Kremlin to amplify its host of strategic opportunities for penetrating the Asia-Pacific markets. As the pipeline by the 'Eastern route' remains highly uncertain an option, the deployment of a number of different LNG solutions would provide Moscow with a valuable hedge. The increase of seaborne routes is functional to Russia's energy strategy as it provides potential diversification of sales markets, particularly on the Pacific Rim. As a matter of fact, today Gazprom is not only dependent on her European customers, but on her pipeline routes as well—a form of transit that provides very little flexibility.

### **Conclusions: Assessing the Conduct of Russia's Eastern Gas Strategy**

To get the facts straight, whatever the skeptics on Russia's ability to adopt grand strategies may say, Moscow is here pursuing plans at the very grand-strategic level. The Eastern Gas Program addresses strictly intertwined long-term goals and combines them with the supreme concept of national security. First, Russia aims at the creation of a new petroleum province to gradually replace the aging West Siberian region—that is to say, she is working on the sustainability of one her most important *instrumenta regni*. Second, Moscow must pursue a much-needed economic and social development in East Siberia and the Far East, in order to offset the outflow of the Russian population. Third, it is seeking to strengthen economic and political integration with the Pacific Rim condominium. Fourth, Russia aims at reviving its relationship with China, thus willing to play the petroleum trade card for a major objective in her foreign relations—we will note it *en passant*: up till now, Moscow and Beijing have built far stronger ties in crude oil relations than in natural gas. Finally, as a gas producer, Russia needs to diversify export markets and routes. While the Asia-Pacific's consumption rates are on the rise, Gazprom is still heavily relying





on European customers. Furthermore, The loosening of Moscow's over-dependence on gas exports to Europe—a feature that emerged only in the late years of the Soviet Union—also aims at deviating from a critical historical impasse and taking a more secure and sustainable development path, one that entails more freedom of action in foreign policy, *inter alia*.

When assessing Russia's strategic performance, a fair critical observation would be that such a momentum lacks of on the very traits of the ideal conduct of strategy—*proactiveness*. Gazprom could have started consolidating its Eastern front years ago, when times were propitious and Asian consumption rates were already increasing. Instead, it has been sitting on the fence for a decade, never shifting its focus from the Western saturated markets with enough conviction. It has been losing precious time dipping into expensive projects that so far did not bring any significant breakthrough—remember Shtokman? As to the Chinese customers, Russia thought they could afford to wait for her. True, Gazprom had little better to offer than a pipeline connection to West Siberian fields, an option the Chinese side would have hardly accepted so long as Central Asian alternatives would have been available, and sure enough, European customers are still here to pay higher, oil-linked prices. Nevertheless, had Gazprom adopted the spirit of compromise it is forced to display today; had it started reviewing its business model and investment structure earlier, it would have been better off securing market shares in the Asia-Pacific in the long run.

***To use the metaphor of Aesop's fable, Gazprom has played thus far the role of the Grasshopper, rather than that of the Ant, and may pay dear consequences, as winter will come.***

Reorientation towards her Eastern flank has been a recurring feature in history of the last two centuries of Russia's grand strategies. However such projections of power were justified—be it for border security, commercial expansion, cultural mission, and so forth—these were often of a reactive nature. The idea to move eastwards always hovered as a possible option among Russia's policy makers, but the decisive urge often emerged at times when these perceived the state of affairs in the European front was not favorable or in stalemate, to say the least. Today, too, the renewed momentum in eastward direction is too clear an indicator that things are going for the worst in Europe—from the Ukraine to the English Channel—and that the prospects are not getting any rosier since the beginning of the crisis in 2008. Gazprom's natural gas exports to Europe fell by 7.5% year-on-year to 138.8bcm in 2012, a decline that largely owes to the low flexibility of its pricing, more than to the weakness of European demand. Moreover, telling it all, the European gas demand has been stagnating for almost a decade, revealing the structural nature of the problem, one that cannot be reduced merely to the impact of the recent economic downturn. On the other hand, the rapid expansion of gas supply options to the Pacific Rim countries have stepped up the level of competition and are narrowing market niches for Gazprom. The need for a strategy of reorientation eastwards emerges thus as a responsive measure which follows the acknowledgment that the world gas markets are evolving at a fast pace and that investment should be switched accordingly, i.e. prioritizing those made on commercial bases. But reorientation does not look much as the result of Gazprom's leadership long view. Rather, it seems that Russia's gas major is running against time and is therefore compelled to adopt an extremely costly and risky 'plan B', one it has been pondering only half-heartedly for years, as working in that direction would have involved heavy initial sacrifices. To use the metaphor of Aesop's fable, Gazprom has played thus far the role of the Grasshopper, rather than that of the Ant, and may pay dear consequences, as winter will come.

However tardily, Russia is moving and still has a variety of options for competing for the Asia-Pacific mar-



kets, as volumes and possible routes are certainly not missing. In the best case scenario, Gazprom will manage to find a compromise with CNPC, thus yielding to the Chinese request to lower prices. This would most likely mean that production costs and export tariffs will be abated to very minimum level. As previously mentioned, the strategic use of the gas processing plants for marketing the helium associated to Siberian fields will also play a key role in improving the economic rationale of the Eastern Program. On the flanks of the Eastern route pipeline, Russia would deploy a number of LNG export options—Vladivostok, Sakhalin and Yamal—that would forestall the risk of abiding by the rules of China as a monopsonist.

In a more sober, down to earth scenario, Gazprom may choose to keep from pursuing her costly projects of Chayanda, Kovykta and the 'Eastern route' pipeline and focus on her few LNG options. The Kremlin, in turn, may decide to associate these to other seaborne trade routes under the control of Rosneft and Novatek. It would be better off could it facilitate an arrangement such as to have the three companies playing in unison—not an easy task, in a buyers' market as that of today. Though, with or without an intra-national competition, would Russia secure three bankable LNG export deals to the Asian shores in the short term, she would arguably be achieving a fair degree of success. ♦

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A number of sources of the present article cannot be disclosed for the related information was provided under the Chatham House rule or by senior experts, whose identity we shall not reveal. Unavoidable further readings include: PAIK, KEUN-WOOK, Sino-Russian Oil and Gas Cooperation - The Reality and Implications (2012); PAIK, LAHN, HEIN, Through the Dragon Gate? A Window of Opportunity for Northeast Asian Gas Security

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Articles from the Economist Intelligence Unit, the European Energy Review, Energy Intelligence, the Oil & Gas Journal, Platts and Argus provide valuable information on the topics touched upon in this article.





## Inconsistent Application of EU Competition Law in the Gazprom vs. RWE Case

- Bram Onck

### Introduction

On January 8<sup>th</sup>, *Gazprom Export* appealed at the *Vienna International Arbitral Centre [VIAC]* following the latter's verdict on October 4<sup>th</sup> 2012 that ruled in favour of the Czech defendant *RWE Transgas*. The origins of their dispute lie in *RWE Transgas*' refusal to adhere to previously agreed take-or-pay clauses in their gas import contract with *Gazprom Export*. According to these clauses, *RWE Transgas* is supposed to pay an outstanding fee of USD 500 million over the period between 2008 and 2011.

The arbitration court examined the compliance of two symmetric take-or-pay provisions in the contract's addendum with the European Union's competition law. Only one of the provisions was condemned, which raises questions regarding the consistent interpretation of competition law by the arbitration court. The following analysis of *VIAC*'s decision reveals that *Gazprom Export* should have a good chance of winning its appeal.

### Czech Gas Market Essentials

*RWE Transgas* is the main gas importer of the Czech Republic, accounting for 87.7 percent of the country's total imports. Following the market liberalization in 2007, *RWE Transgas* has consistently been losing ground in the downstream market to smaller companies. Last year, the company saw its market share decrease to below 50 percent. The second biggest player in the downstream market is *Vemex*, which holds a market share of approximately 10 percent. Its majority shareholder [50.14%] is *Gazprom Germania*, while the remaining shareholders are alleged to have ties with *Gazprom* as well.

*RWE Transgas* currently purchases 9bcm/y of Russian gas and will do so until 2035, according to their contract that was concluded in 1998 and extended

in 2006. The take-or-pay provision in this contract stipulates that it is obliged to purchase 90 percent of the annual contracted volume. Consequently, *RWE Transgas* is losing money on its distribution activities; it is forced to lower prices in order to defend its market share, while it is simultaneously bound to import significant amounts of expensive Russian gas.

*Vemex* currently purchases 0.5bcm/y from *Gazprom Export* under presumably favourable terms, given that it is a daughter company of *Gazprom Germania*. Apart from that, it holds a significant competitive advantage over *RWE Transgas*, as *Vemex* is to a larger extent able to purchase gas on German and Czech spot markets. Given that spot prices have been generally lower than oil-pegged prices over the last few years, *Vemex* has been able to penetrate the Czech market at the expense of *RWE Transgas*. In this sense, *Gazprom*'s daughter company is very cleverly making use of reverse flow opportunities, which was initially perceived to be a threat to the company's interests.

### Compatibility Contract with Competition Law

When *RWE Transgas* made clear that it would not fulfil its contractual obligation of paying its outstanding bill, it based this decision on the contract's addenda. The first addendum lays down that *RWE Transgas* is entitled to reduce its offtake obligations by the same amounts that the *Gazprom Group* directly supplies to the Czech market. The second addendum stipulates that *Gazprom Export* is allowed to increase the offtake obligations of *RWE Transgas* up to the amount that *RWE Transgas* supplies to markets outside of the Czech Republic which are supplied by *Gazprom* as well.

Although both provisions seem to bear similarity, only the latter has been declared invalid by *VIAC*. This decision has not been disputed by either party, as it clearly resembles the infamous destination clauses which have been declared to be incompatible with competition law by the European Commission. One would expect that, along the same line, the second addendum would be considered to be an illegal volume agreement as well.



When examining the European Union's competition law, as laid down in Article 101 of the Treaty on the Functioning of the European Union [TFEU], it does come as a surprise that VIAC did not condemn the first addendum that allowed RWE Transgas to reduce its offtake by the same amount as Gazprom Group directly supplies to the Czech market.

Article 101 TFEU prohibits "...all agreements between undertakings [...] which may affect trade between Member States and which have as their object or effect the prevention, restriction or distortion of competition within the internal market [...]." In addition, it explicitly refers to agreements regarding fixed purchases, market limitations, market sharing, and the application of dissimilar conditions to equivalent transactions with other trading parties, thereby placing them at a competitive disadvantage.

From this it should follow that the addendum is indeed prohibited under EU competition law. Firstly, it involves an agreement between undertakings that may affect trade between member states. It should be noted that the European Court of Justice has a reputation of strict interpretation of this stipulation. Considering the Czech Republic's physical interconnection with neighbouring states, their ability to resell excess volumes, and their developing spot market, certain volume agreements definitely potentially affect trade between member states. The addendum basically limits competition on the market by volume agreements that allow for market sharing.

Secondly, the arbitration court will have to prove that the addendum does not effectively prevent, restrict, or distort competition in the internal market. This position is hard to maintain, as it is rather obvious that Gazprom's presence in downstream markets, with its additional trade volumes, can only enhance the amount of competition in the EU's internal market. One could argue that the first addendum is essentially an agreement to attempt to fix the potentially traded volume on the EU's internal market, as both parties make their contracted volume dependent on each other. This, naturally,

has a competition distortive effect for both the Czech market as well as for trade between member states. Essentially, the addendum is a volume agreement that restricts gas-to-gas competition in the EU.

### Future Outlook

The final outcome of their dispute has the potential to create a precedent, which could result in a multitude of similar trials against Gazprom from clients with whom Gazprom has concluded similar agreements. Nevertheless, the outcome of the trial should not be overestimated at this stage, as we do not know anything about the existence of similar contracts.

Looking at the future, it is unclear when VIAC will come up with its final decision although RWE Transgas has indicated that it expects the matter to be settled before the end of this year. In case Gazprom Export loses again, it can always appeal at the Austrian national court, after which the latter is ultimately forced to ask for a preliminary ruling from the European Court of Justice. Of course, it is clear that this is not desirable for both parties, taking into account both the costs of appealing and a potentially damaged reputation.

Despite the fact that gas-to-gas competition on the Czech and European market is not beneficial for RWE Transgas, it does represent the kind of competitive gas market that the European Union desires to establish. From this perspective, it is odd that the arbitration court's verdict promoted an anti-competitive agreement between two undertakings. If it is true that the ultimate objective of Article 101 is to promote competition, rather than protecting incumbent companies, Gazprom Export should have a realistic chance of winning its appeal. ♦

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## Towards a European Energy Strategy?

*Simon Schmidt*

Energy policy has the potential to foster Europe's role as an innovative hub for transnational cooperation, but it too often demonstrates the gaps between competing national interests. This article explores energy cooperation through the internal market, external energy security and how Europe is creating innovation in the sector.

### **Towards a European energy strategy?**

The first multinational attempts to institutionalize and regulate energy interests emerged after the Second World War. New energy market dynamics and the awareness that disputes over natural resources can breed war led to the creation of the coal and steel agreement, providing the first pillar of communal European interests. The European Union now oversees its Member States' own measures and conducts its own transnational decision-making processes to ensure a stable and affordable energy supply across Europe.

The ambitious Europe 2020 Energy initiative, formulated in 2010, required member states to reduce their greenhouse gas emissions by 20%, to increase the share of renewable energy to 20% and to improve energy efficiency by 20%. During the next two years the European Commission responded to the lack of commitment by member states and has since issued a series of European level reforms to ensure that European Member States pull their weight in producing a sustainable energy program. These additional steps show a distinct aim at closing the gaps between national actions and European visions.

One key vision put forward in the Treaty of Lisbon was the notion of a transnational energy market.

One key vision put forward by the Commission in the Treaty of Lisbon was the notion of a transnational energy market. Energy was now to be considered an EU policy area in its own right and the

creation of a single internal European gas and electricity market was a major goal that would support the Energy 2020 goals. At its core, this common market aims to separate energy production from international distribution by breaking big companies' exclusive infrastructure ownership and to encourage competition among energy providers. Hence, this market would grant all European consumers more supply options, would enhance free trade and make an important step towards common market-based prices. This plan therefore directly Europeanizes two key facets of energy strategy: better accessibility for supply and greater price affordability.

### **Responses to Russia**

Better accessibility has not reached a point where energy security is no longer fragmented among its members. This is simply due to the fact that external market actors are essential for guaranteeing the energy supply of most member states because European energy created within European borders cannot meet demand. There is a universal consensus that Russia, and its state owned company Gazprom, is the most important actor in the EU's energy security system. Russia currently supplies 38.7% of total gas imports and 32.6% of total oil imports to the EU. In several Eastern European states and particularly the Baltic countries, all gas is provided by Russia.

Despite a recognition that Europe is subject to the whim of Russia, there exists no unified response to this development among EU states. Even after 2009, when Gazprom cut gas supplies to Ukraine, a 'transit country' to the rest of Europe, and the impact was felt as far as the UK, the approaches of different member states continued to conflict with one another. Germany sought close ties with Gazprom, and pushed for the construction of the Nord Stream gas pipeline, running through the Baltic Sea, to avoid land transit through Belarus and Ukraine. Poland's government was horrified by the new German-Russian alliance, with Radek Sikorski going so far as to call it the 'Molotov-Ribbentrop pipeline', and Polish public opinion remains very negative towards the project. The project in fact evolved into a multilateral endeavor, albeit a western one, involving not just Russia and Germany but also France and the Netherlands.





In contrast, the Baltic States traditionally pursue a rather cautious policy towards Russia and are certainly wary of their 100% dependency of Russian gas. They have engaged in an Eastern European movement to tackle the troublesome Gazprom monopoly of European energy. Lithuania initiated the complaint against allegedly unfair pricing mechanisms, contracts for gas which are linked with (greatly increasing) oil prices - resulting in an official investigation of Gazprom by the EU Commission on anti-trust law violations. The investigation covers deals between the Russian state company and the buying nations Poland, the Czech Republic, Slovakia, Hungary, Bulgaria, Estonia, Latvia and Lithuania, who are all highly dependent on Russian gas. If the investigation turns out to be successful, Gazprom could face fines of up to 10% of its annual sales.

The issue of external actors shows that European states aren't acting as a unified front. However, they all share the common understanding that unilateral decisions are memories of the past and that the EU should be the body to handle issues of vital importance regarding energy security. After all, Nord Stream is gradually evolving to be a multinational pipeline, and all member states respect the EU's authority with regard to pursuing the anti-trust investigation against Gazprom. Gazprom has already announced that it is likely to cut long-term contract prices to Europe next year.

#### **European innovation or fragmentation?**

### ***At a European level, the question of shale gas extraction remains a complicated one.***

An answer to the energy security dilemma would be to produce more European domestic energy, but even here there is a split between states who are trying to promote renewable energy and those who aim to harness their domestic shale gas supplies. Germany is steadily withdrawing from nuclear energy and promoting renewable energy sources,

eager to be recognised as an innovator in green technologies. Poland on the other hand is strongly promoting shale gas extraction to diversify its energy supply. As Brain editor Matt Shearman argued here, the Polish Government is undertaking these measures in order to cope with the green energy policies of the EU, as much to reduce its reliance on Russian imports.

At a European level, the question of shale gas extraction remains a complicated one. While Warsaw regards hydraulic fracturing (fracking) as a bridge technology to meet its decarbonisation requirements, the European Commission is concerned about the potential large scale environmental effects, thus negating the environmental benefits. Are these contrary approaches undermining a pan-European energy strategy? After all, every member state is entitled to create its energy mix according to its own needs and particularities. Here, EU strategies function rather as guidelines and provide important regulation frameworks to ensure an innovative and sustainable transnational energy policy in the long run.

The EU's major framework for sustainable energy is the EU Emission Trading System (ETS), a system based upon trading emission allowances that companies are allotted; the less carbon used, the less carbon allowances need to be bought, or else a greater number can be sold to recoup money. At a European level, the EU will continue to reduce the limit at which greenhouse gas emissions are allowed before carbon permits need to be bought as well as expanding the ETS to include more industry sectors. It is planned that the market will reduce carbon emissions by 8% in comparison to 1990.

The impact of this framework can be seen by how it will affect energy production in Eastern Europe. Polish coal plants for example, the primary source of Poland's carbon emissions, originally received free carbon allowances - literally 'allowing' them more carbon produced for their energy- but will now buy them from the start of 2013. This will make dirty coal energy production less competitive, forcing industries to invest in greener sources of energy in-





stead of trading in costly carbon allowances. In the short term, Warsaw is likely to introduce supportive measures for its coal industry, but the ETS is slowly forcing Poland's long-term reliance on coal to come to an end.

### Energy as a 'European common good'?

## **The EU summit in 2011 demonstrated the uniqueness of European cooperation**

Energy is intrinsically linked to the core of national security, and for this reason it is especially hard to find common ground between Member States, even when the right universal aspirations might exist. But the general trend suggests that European leaders are increasingly shifting their approach towards unified strategy proposals. The EU summit in 2011 demonstrated the uniqueness of European cooperation, where national initiatives are continually transposed to European strategy.

France pushed for the promotion of low-carbon sources to foster its construction plans for nuclear power plants, leading to an official accord for the European promotion of "investment in renewables and safe and sustainable low carbon technologies." Germany and Poland demanded a legally-binding target for energy efficiency, which led to a reassurance statement by all member state leaders that they would deliver on the Energy 2020 targets. These founding agreements led to the agreement for a more coherent European foreign policy in terms of energy.

**...most importantly, the instinct towards autarky and fear of external European suppliers must disappear to improve the energy mix in all European countries**

Whilst this is often hard to perceive, it is important

to remember the degree of consensus among member states when attempting to put European energy strategies into a global context. Supranational strategies are vital when it comes to pushing individual states to promote alternative energy methods.

There is still a lot of work to do in order to foster the notion of a true European energy security system though, domestically as well as in how European states respond to global actors. Perhaps most importantly, the instinct towards autarky and fear of external European suppliers must disappear to improve the energy mix in all European countries. It is crucial to the future wealth and energy security of Europe to put a positive value on coordination, mutual dependence and the effective allocation of financial resources and the impact this might have on energy-rich neighboring countries. After all, the idea of a globally integrated energy system has existed for several years – initiative is the next step it needs to keep developing. ♦

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Originally written for and published in Europe & Me magazine issue 19: <http://www.europeandme.eu/19brain/1089-towards-a-european-energy-strategy>



## The Associated Effects of the Shale Gas Revolution

Colin Chilcoat

***“Permits to flare can be granted on grounds of economic infeasibility and such permit applications have tripled in the last couple of years as even non-associated gas producers struggle to operate at a profit.”***

Natural gas flaring, a practice nearly as old as the oil industry itself, has in recent months put the remote state of North Dakota and its Bakken shale formation on the map, literally. Recently released nighttime images from NASA show the sparsely populated region to be awash in light on a scale comparable to much larger metropolitan areas like Chicago. The light pollution, a portion of which can be attributed to related infrastructure, provides a striking visualization of a problem that is largely out of sight and out of mind. The simple truth is that over one-third of natural gas produced in North Dakota is flared or not marketed. Gas flaring is not endemic to the United States, though. Actually, according to World Bank estimates, the US ranks fifth worldwide in the sheer volume of gas it flares behind Russia, Nigeria, Iran, and Iraq. However, the US is one of the fastest growing offenders and the volume of flared gas on US soil has risen three-fold in the last five years. The US shale boom is particularly at fault for the rise in flaring activities and the pursuit by other countries to replicate such success within their own borders could have significant economic, environmental, and social implications.

The root of the problem is such: while natural gas can be found without oil, oil deposits usually contain gas, known as associated gas. This natural phe-

nomenon when combined with the logistical difficulties of storing or transporting gas as well as the vast difference in relative value of the two commodities typically results in the burning, or flaring, of the associated gas. The following numbers from the World Bank help put the problem in perspective. According to their 2012 numbers approximately 140 billion cubic meters of natural gas are flared annually. This figure is equivalent to 23% and 30% of US and EU natural gas consumption respectively. Billions of dollars in potential revenue are being burned annually, not to mention the future costs of trying to reverse the ecological damage. Altogether flaring emits roughly 400 million tons of CO<sub>2</sub> into the atmosphere, or 34% of the annual emissions from the US automobile fleet. Another \$6 billion is lost in carbon credit value at a rate of \$15.00/Metric Tonne.

In 2002, at the World Summit on Sustainable Development, the Global Gas Flaring Reduction public-private partnership was founded as a forum for representatives of governments and state-owned and international oil companies to develop best practices and establish country specific reduction plans. The partnership has proven to be a successful venture and flared volumes have steadily decreased since its inception. However, several factors limit its effectiveness and their demand-pull approach typically results in too much money spent on too few goods. For all of its positives the partnership is simply not able to address the problems that are inherent with particular governments and their relationships with oil and gas producers. Simply put, policy changes must be specifically addressed to reverse the future of associated gas losses.

Let's briefly examine the situation in Russia; number one in the world in terms of flared volumes, the extent of which is cloudy at best, as transparency is minimal. In 2006, the International Energy Agency conducted a cost-effectiveness assessment for a typical oil field in West Siberia. The test compared such associated gas best practices as reinjection, on-site power generation, and pipeline construction. The study determined that approximately 30% of the associated gas could be utilized on-site and in the local communities. Utilization of the remaining 70% would



have to be accomplished through alternative methods or flared. Unfortunately, the government supported monopolies that gas giant Gazprom maintains over the countries pipeline network and exports limit the ability of oil producers to utilize their associated gas volumes. Rosneft, the country's largest oil producer, acknowledges on their website that both associated and non-associated gas output is only limited by the access to Gazprom's pipelines and export markets. Beyond these difficulties, Russia, like the majority of the top flarers, lacks the fiscal incentives to meaningfully reduce flaring. While, emission penalties and fees exist, they have remained stagnant and continue to be far more affordable than the alternative means of utilization.

The case developing in the United States, while nowhere near as dire, nonetheless illustrates the need for adaptive measures and diligent policymakers. High national demand for gas coupled with a well-developed pipeline system has previously allowed the US to attain some of the highest utilization rates worldwide. However, the shale boom has flooded the domestic market with gas and prices have fallen sharply. Permits to flare can be granted on grounds of economic infeasibility and such permit applications have tripled in the last couple of years as even non-associated gas producers struggle to operate at a profit. Rather than become irrelevant, companies are choosing to strike while the iron is hot. The result has been a race to the bottom as companies attempt to forgo any expenses besides those that are absolutely necessary. Such scenarios are not hard to imagine developing around the globe, especially in countries that operate under more opaque regulatory guidelines. Keeping everyone, including our planet, in the green will be a key challenge for governments and policymakers as the shale revolution continues to gain footing around the world. ♦

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## Workshop Review: Vladimir Milov

- Joe Ralbovsky and Nicholas Watt

On February 18, 2013 at European University at St. Petersburg, Russian opposition politician and energy think-tank head, Vladimir Milov, gave a presentation titled “The Future of Russian Energy Politics” to an audience of about 30 MA students and a handful of Russian energy experts. Milov’s presentation was one in a series titled “ENERPO Workshop”, a program in which energy experts based in Eurasia are invited to give talks for students in European University’s ENERPO Masters program. Speakers include representatives from major energy companies, academics working at energy think-tanks, and government officials.

Vladimir Milov, a graduate of Moscow State Mining University, served in various governmental capacities from 1997 to 2002. At the age of 25, Mr. Milov began his government career in the Federal Energy Commission of Russia, a body responsible for regulating Russia’s energy sector and its natural monopolies. After four years of working on regulation, Milov accepted the post of Deputy Energy Minister of Russia in then Prime Minister Mikhail Kasyanov’s administration, and resigned in 2002. Milov took on a more independent role after his stint in the government and has headed the Moscow based think-tank Institute of Energy Policy ever since.

While Milov’s knowledge of the energy sector has made his voice an influential one in the formation of energy policy, his voice has become increasingly prominent in Russia’s opposition movement. Milov’s first-hand experience of the federal government’s modus operandi and his unabashed criticism of the system have made him one of the most cited sources in the media and a credible whistle-blower. Publications, such as “Putin and Gazprom”, in which he and former deputy Prime Minister Boris Nemtsov document cases of Gazprom’s asset

stripping, are uncompromising in their intention to expose corruption at the highest level.

Although Milov’s presentation focused on Russia’s energy sector and not his oppositionist political views, his frustration with the state’s inefficiency, nearsightedness, and cronyism was apparent throughout his talk. In his 50 minute introduction, Milov clearly favored greater privatization of his country’s energy sector and pointed to various success stories to support his stance, but all the same he pleaded his audience to make an unbiased evaluation. This entreatment to look objectively at the debate between privatization and nationalization was the theme of his presentation.

The presentation consisted of two parts: the above mentioned “introductory speech” and a “question and answer section”. In the following representation of the event, we, the authors, have used a combination of Mr. Milov’s exact words and paraphrasing in an attempt to best convey his ideas.

### Introductory Speech

Over 20 years ago, the government launched an unprecedented process of opening up and privatizing the Russian energy industry, however this didn’t happen everywhere. Gazprom, which controls most of Russian gas assets, was preserved as a centralized entity much like it was in Soviet times. Personally, I think that was one of the most tragic mistakes of the President Yeltsin and the reformers.

**“Researchers should provide an honest analysis of private-ownership vs. state-ownership.”**

In industries like oil, coal and partly electricity, the government proceeded with privatization efforts. Especially with oil, the privatization trend has recently reversed itself and with state-affiliated companies taking over some private assets, some investors were squeezed out. Formal legal restrictions have been put in place to keep “strategic assets”, like the offshore, out of foreign hands.





The last twenty five years have allowed us to look back and draw comparative analysis of efficiency of different policy models, be it nationalization or privatization. My suggestion is that researchers should provide an honest analysis of private-ownership vs. state-ownership. Right now what you get is 99% mythology and propaganda from both sides and only 1% of objective analysis of what is going on. I wouldn't say that I am completely unbiased. I have my sympathies on a certain policy side because I am a practical policy manager in the energy area. My aim is to provoke you for further analysis; I will just give you hints at where to look.

In the beginning of the 90s Russia's oil output was in terrible decline. Some people think the decline was a result of the reforms, but the decline in output began in 1988 under the Soviet government. The oil industry was in such bad shape that the government was borrowing from the World Bank to subsidize oil production. By 1995 most of the oil production had been transferred to private hands.

What is important is that since 1991, the trunk oil pipeline system has been completely independent. This was vital for securing a competitive environment in the oil industry. 10 years ago, there was an attempt of Transneft, the pipeline operator, to acquire oil producing fields and become vertically integrated. Putin interfered and did not allow it, keeping it independent so that it would not be involved in conflicts of interests with oil producers.

Around 1996, exactly when the notorious "loans for shares" deal was completed, oil production started stabilizing and within three or four years time had switched to rapid growth of output. It was such an unpredictable story. In 2001, I was on the government team working on Russia's 2020 energy forecast. When my minister, who was chairing the group, saw we had predicted our oil output to increase to 350 million metric tons per year by 2020, he mocked us for such an optimistic prediction. He was unaware that the output at the

time was 348 mill. metric tons; the ministry's government

***"People say that all [the oligarchs] did was take all the oil profits and buy yachts and real estate, that is factually untrue."***

strategists had no idea what the private owners had done to improve efficiency. This impressive growth continued for several years and brought Russia to a new level of international oil industry importance. We are now at a stable level of 500 million tons, in the same league as Saudi Arabia.

There is a lot of mythology that has been propagating about this growth. One myth is that the private companies started to rapidly use the previously idle wells left over from the Soviet Union, "picking the low-hanging fruit", so to say, and because of that, production started to grow. That is factually untrue because from 1999 to 2005, the period of greatest oil production growth, the share of idle wells of the total number of oil wells did not change. It was somewhere around 20%. What changed was the average productivity of one well—it jumped roughly 35% in that period. Efficiency was achieved regarding oil extraction and that was done by bringing the most experienced foreign companies like Halliburton or Schlumberger. That was growth driven by both technology enhancements and massive investment which led to increased productivity.

Another myth is regarding the oligarchs who were in the oil industry (I'm not justifying them, I'm just telling the facts). People say all they did was take all the oil profits and buy yachts and real estate—that is factually untrue. Official Russian statistics show that these companies had reinvested 90% of their profits in increasing oil output. Just take for example, the Yukos company. Yukos was the first company to develop from completely green field status and launch on-stream production the biggest new field in post-Soviet time, Priobskoye field, which was pro-



ducing almost zero oil in 1997-98 when Yukos established control over it. At the same time it was discussed in the government that Russian companies were too weak to develop this field, that they would need foreign partners, PSAs, and so on. However, what happened is Yukos completely rejected the idea of foreign partnerships and invested over 2 billion dollars of its own money into Priobskoye development and brought production from zero to over 20 million tons a year just from this field alone. When Rosneft took over Yukos in 2004/2005 they simply inherited the thing that was up and running. That is just one example of many—another is the projects of Lukoil in the Caspian, where they were the first to make big post-Soviet discoveries. The whole story was a relative success story. Despite the shortcomings and problems, it had brought the oil industry to a new level. We talk a lot about modernization and few understand what it means, but that is exactly what happened in the mid-90s to the following decade with the help of private capital and initiative. The Russian oil industry under private control, where the private sector controlled over 90% of production had been substantially modernized. In a way, it is my personal opinion that this should have been used as a model for the development of the whole country's economy.

Then government started to make a big comeback in the oil industry, and established control over Yukos and Sibneft, thereby increasing the level of state-controlled production from below 10% to just above 40% (this number will increase to over 50% with the acquisition of TNK-BP). This will mark a significant psychological change because state will start to formally dominate after 20 years of privatization policies. Now, private oil will be pushed to a marginal role. Starting from 2005, the average growth of oil production per year had declined to something like 1.6% compared to 8.4% from 2000 to 2004, inclusively. How can you explain that sharp decline in output? Despite developments in green field oil production, the great majority of projects were carried through by private capital be it Lukoil, or TNK-BP in Irkutsk. There have been few examples of state companies

that have really delivered with new projects. If you ask the question, who contributed most to the development of green fields, the answer is obvious to me, the private sector. Perhaps if you do your own research you will find something different but it is important to have an honest, objective discussion about it.

***“Gazprom will never come back to the level it achieved in 2008 because of its fundamental uncompetitiveness—the main reason the company is losing market now.”***

In the late 1990s Gazprom had an advantage: it had not experienced the sharp production drop in the first half of the decade like the oil and coal industries had. It had centralized revenues from exports. It had relatively new capital stock and relatively new fields and pipelines. The results? Just look at the formal statistics of Gazprom in 2012. Gazprom is losing European markets big time and its gas output is the same as it was in 1999. Do not follow Gazprom's announcements; they use different bases for comparison each time, use official Russian statistics found at the website: customs.ru. It's a bit tedious but they have monthly statistics of natural gas exports. Exports to the so-called “far abroad” (beyond former USSR territory) have dropped from their 2008 level of 150 bcm per year to around 100 bcm now and it's in decline. My prediction is that Gazprom will never come back to the level it achieved in 2008 because of its fundamental uncompetitiveness, which is the main reason the company is losing market now. Everything, labor productivity, output per employed, average productivity of one well, nothing. If there are some fans of Gazprom in the room, I advise you to give me some positive examples.

After many years of hesitation Gazprom finally decided to move up north and develop the capital intensive Bovanenkovo field. But now the question is





not whether they will have enough gas to cope with increasing demand but if they will need any new gas at all. I don't think this can be characterized as positive.

***“The performance of national champions in the development of the offshore has been a complete failure over the last ten years.”***

In both the oil and gas industries, the government has gradually transferred offshore resources to state companies. And for the last five years, Rosneft and Gazprom have enjoyed a formal, legal monopoly of developing the Russian offshore. In fact, following the cancellation of Sakhalin III with the Americans, this monopoly was de facto granted in 2003. So we have ten years of domination of Russian oil/gas companies in the development of the offshore. What are the results?

My question to Gazprom supporters, can you see a positive development in the offshore since this monopoly was granted? Instead what we have is two projects, Sakhalin I and 2, completely developed by foreign investors, which are up and running, producing gas. The state companies, on the other hand, have little to show for themselves in the way of the offshore. Shtokman—cancelled so far. Prirazlomnoye—disgraceful story with many postponements, still not happening. My suggestion is the performance of these national champions in development of offshore, the biggest new province for our oil and gas industries, has been a complete failure over the last ten years.

The state of the coal industry in the early 1990s was even worse than that of the oil industry. There had been a sharp decline in output, extremely low employee productivity, millions employed and the coal industry actually received over 3% of the GDP in subsidies.

This is the most underappreciated of the reform achievements. After privatization of this industry in 1992, labor productivity doubled within a decade. Zero money is now being spent on coal enterprise. Russia had always been a coal importer, and for the first time became a net exporter in 1997. Russia is now in third place behind Australia and Indonesia in coal supplies to world market. With the exit of the state, we have created an internationally competitive sector—something no one expected. Now think of Gazprom...

Russia is at a crossroads because in order to increase output, we need to go into much more difficult areas, requiring more investment, skill, technology, and efficiency. It is vital to have a model to achieve this. Do we follow privatization, in which foreign investment may sometime take a leading role or the centralized monopoly model based on national champions? The choice is vitally important for the development of these new green fields. If we choose the wrong model we may lose our position in the international energy markets, and the energy sector will become a headache for the authorities, with subsidies and so on.

***“I have never seen the government produce an impact assessment of what will happen with the takeover of TNK-BP.”***

This is why having an objective analysis of this issue is very important. In Russia, I think we lack this discussion—good objective analysis of the two models.

When the government issued a quick no objection to the acquisition of TNK-BP by Rosneft, there was no such analysis. I have never seen the government produce an impact assessment of what will happen with the takeover of TNK-BP. No comprehensive analytical paper was released. The government just approved the deal with a snap of the fingers. This was wrong and we need to revisit the whole strategy.



Moving to the international arena, can you recall any problems or controversy with exports from the mainly privatized oil and coal industries? Can you recall reports that Russia is losing the European oil market big time? Can you recall a price standoff with Ukraine concerning oil? I don't recall anything like that. Our positioning on the international oil and coal markets has been very successful, which I suspect has to do with private owners being motivated to do an effective marketing job, to promote themselves internationally, and to conquer the markets, as they did.

***“Some people have this rosy expectation that China will be an endless energy market, but it's just not the case.”***

Something that coincided with the government takeover of oil/gas industries is the idea that Russia and China could establish a solid energy partnership. It was a strategy by Russian policy makers to be more aligned with China as a huge energy market. I have to say that this strategy is not working. Almost seven years ago Putin visited Beijing and signed a preliminary agreement with the Chinese over a 30 bcm capacity pipeline to China. Three weeks after Putin's visit, former Turkmen president Niyazov signed a similar agreement with the Chinese. Seven years have passed and the Turkmen pipeline is up and running and China had completely outplayed Russia. You may recall that from time to time an article comes out saying that a deal is imminent. This has been happening for 7 years now.

There is a reason for that. There is a problem with this strategy: China is still very much a coal consuming and coal producing country. Coal accounts for 70% of China's energy mix. Gas is only marginal; China only consumes 130 bcm of gas per year and itself produces over 100 bcm. This leaves China with only a 30 bcm per year import demand. Is that big? By all means, no. Moreover, China is

strongly pursuing a policy of diversification of imports and does not want to be overly dependent on any one source. Currently they already buy gas from Malaysia, Indonesia, Australia, and Turkmenistan. Maybe they will buy some from Russia, but given these figures and circumstances, it is normal to expect that Russia's share of the Chinese market is not going to be big.

Some people have this rosy expectation that China will be like an endless energy market and it's just not the case. It's never going to be the case. There is a reason why gas negotiations have stalled; it's the pricing issue. Gazprom wants the price to be similar to that of Europe. When I worked in the government, the Chinese always had a clear rational economic benchmark of domestically produced coal and their logic was this: if buying Russian gas will be more effective than burning our own coal, we will consider; but if you are going to offer us more expensive gas, then it won't work.

This policy of switching focus to the East, in particular China, is not working. This means we need to continue to focus on Europe. The market is becoming more and more competitive, partially because of the shale gas revolution in the US. The effect will be the same with coal, everybody has it and the price is being pushed down. You can buy from almost anywhere. There are many countries have shale gas reserves that you wouldn't expect, like Lithuania.

Hubbert's theory has been completely debunked—oil production is up 20% and IEA predicts that by 2020, the US will become self-sufficient in oil and possibly an exporter. Think about the strategic consequences of that. If someone thought that Russian energy will be in demand by default because it is one of the few countries with lots of resources, they were wrong. Competition on the international energy markets is back, big time. Russia, I believe is destined to be a major energy player and this is not a bad thing.

I don't think the resource curse exists and Russia can be an effective energy exporter but it's becoming more difficult. You need to spend more time



developing domestic resources, such as the offshore and you need to be more competitive internationally, especially for Gazprom. As for LNG, the only thing Russia has now is a plant in Sakhalin built by Shell and the Japanese. Gazprom is not even in the planning stages of another LNG plant. There are some preliminary negotiations in Vladivostok. How can you compete in the international market if you do not produce LNG?

A change is coming and I don't think enough time and effort is being spent on honest policy decisions. Policy decisions are artificially imposed on us and they are heading in the wrong direction.

### Question and Answer Section

*Do you see Russia's overall attitude toward investment in its gas industry changing? What about in Russia's offshore? And how do you see WTO integration affecting the energy sector?*

Under the current regime, I don't expect any dramatic changes in policy, but much more of the same. Perhaps there will be more flexibility to more private players, but this will be muted to help the status quo. If you want to find out what will happen in the future, look at the past. Many major partnerships have collapsed, such as Shtokman, as a result of Gazprom's desire to dominate and control. International players are leaving because of the toxic anti-partnership environment in Russia, including many formerly pro-Gazprom companies that have lost faith in partnerships. This means that the bulk of production is coming from old fields. There will likely be some decline in production permitted as a result of this rent-seeking attitude and approach. Right now, Gazprom is more focused on obtaining a monopoly than efficiency. Political change needs to happen for any real change to happen.

Offshore oil is another thing we have no experience with. Typically, it's Western engineers that have that expertise. Additionally, Russian offshore is characterized by icy conditions and cold water—giving it unique, complicated features. Each of these projects is unique, and should be treated like an

international space station. Russian companies can participate in some international partnerships. Will it contribute significantly to making a breakthrough for big complicated projects on Russian shelf? I'm not sure.

Because of these difficult conditions, international projects here should be encouraged. This is why the whole 51% of control is bad—this happened with Shtockman and it didn't work. We need to distinguish 'granted partnerships', where the partner is at the mercy of the state, from super-national rights. Only then will we be approached with meaningful and rewarding partnerships.

This lack of partnerships and cooperation is already beginning to show. Gazprom is losing ground internationally, and wants to use revenue from Russia's domestic market to compensate for losses abroad. As a result, Russian consumers are suffering. Gas prices are also a major driver of high inflation as well as other price increases. We need to stop the rising gas prices, but it looks like Putin plans to stand firm on the scheduled increases. I don't doubt that Russian domestic prices will go higher than current net-back prices for EU customers.

With respect to WTO integration, I wouldn't expect any major short-term impacts from the changes. In the long term it will probably make Russian commodities more competitive, which would be a good thing. There will be some effect on very specific industries such as auto manufacturing or agricultural machinery, but in general, the energy sector won't be affected that much. If anything, it will provide some incentives to improve efficiency and perhaps even open up higher value-added production in Russia.

*How do unconventional appeal to Russia's energy sector?*

As for unconventional, this regime does not have anything in place for PSAs, which would make development of these more feasible. Countries that are developing shale gas and oil are typically dependent on imports. Russia does not have this problem, so



there is no stimulus to work on them or renewables. There's no motivation for the government to focus on those because we've been filthy rich with hydrocarbons and Gazprom is in denial of the shale gas revolution. They think it's overestimated. In the future, they might jump into it because they want to establish control over shale in some countries. Right now, it's too far away to tell. There are no signs that development of shale will happen, and the situation isn't much brighter for LNG, which has been unable to overcome Russia's powerful pipeline lobby. So far there are no leads for either kind of project.

*What do you think are the chances that Russia's gas conflicts with Ukraine will happen again?*

There might be a repeat of the 2006/2009 gas conflicts. Putin's administration is very unhappy with Yanukovich's performance, as they thought it was going to be markedly more pro-Russia. Since he's not making decisions that help Russia, they're questioning themselves as to why they helped him get

**“Gazprom has no experience in winning take-or-pay contract cases.”**

elected. While a repeat of the gas conflicts is possible, it's not certain. It would likely be a very stupid move on Gazprom's part as the fallout could further undermine Russian competitiveness in the EU. Consequences of former Ukraine conflicts are still having a big impact on Gazprom, and have contributed to losing market share in the EU. If another cut-off happens, there will probably be further negative implications for Gazprom.

In my view, this court claim against Naftogaz is desperate, and is perhaps insisted by Putin. Gazprom has no experience in winning take-or-pay contract cases. Take-or-pay has many fundamental weaknesses – the supplier explains it as necessary to guarantee payback of investment, but if you can prove that there was no investment done as a re-

sult of the contract then that argument doesn't hold up. In Ukraine's case, the needed infrastructure already exists. The court could decide that Gazprom imposed forceful conditions and that their payback claims aren't valid as there were no costs in Ukraine's case. I think it would be very difficult or Gazprom to win.

*What would it take to effectively reform the gas sector, and how would you envision this happening?*

Public perception of privatization is very different from actual results achieved. Privatization of gas has had many failures, like with oil sector. You also see gasoline prices rising. Even people who have no idea about economics or reforms can feel the effects of the monopoly. They're able to drive 200km and see those effects—the different prices according to regional buying power. This is one of the failures of the oil reform: we weren't able to create one refined products market. Another aspect that influences public opinion is the huge amounts of exposed oil wealth that contributes to raising social inequality—this is hard to deal with. It's very difficult for the organizers of the reform to argue success when it had a negative social effect. These reformers did a lot of good things, but they were unable to publicly sell these reforms.

As to driving forces needed to preempt the major reform of our energy sector, we've historically seen catastrophic failure with our coal industry lead to huge amounts of progress. In this case, the state did privatize some capital, but kept Gazprom more or less intact. Why?

With the oil industry reforms, many of the larger enterprises were successfully broken up into subsidiaries before reforms and many were privatized. This was not a product of government thinking, this was the result of a trend of decentralization in the overall oil industry, and was pushed by some big names in the sector. They wanted their companies to be separated and become private, and some managed to privatize it for themselves but not all.



These industry generals were a powerful driving force that helped reform. Right after Vyakhirev became chairman of Gazprom, he registered all of the stock and fund for the local production and transport subsidiaries for the central office—this made these subsidiaries liabilities. This made for quite a different story.

By the end of 1992, Lukoil legally controlled all of their fields, wells, and capital. With the gas reforms, Gazprom had eliminated the avenues for this separatist trend. As for the current environment, I don't see any catastrophic scenarios re-emerging to spur dramatic changes. Right now, politics is much hotter than the energy sector. If anything changes it will likely spill over from the political side of things. Things are bad, but nothing compared to what we had in the late 80s and early 90s.

*Can you speak on the state of the electricity market reforms?*

In black and white, the reforms to the electricity sector have failed terribly, and there are no reliable indications that the current problems can be corrected. There's no competitive environment because huge amounts of assets were given away to large companies affiliated with the state during the stage of privatization. As of now, around 75% of power generation is controlled by a cartel of state-affiliated companies. Also, it's clear that the government isn't rushing with deregulation. It's not just because they don't see a competitive environment, but also because they don't want to let go of regulatory leverage. Their total instinct is to increase control.

**“The government also failed to keep its promise on unbundling and liberalizing the [electricity] sector”**

There's an overly complicated system of electricity trade, and the government has lots of leverage to interfere. So you see failures on deregulation and

competitive market promises. The average industrial electricity prices are becoming higher than they are in the U.S. The U.S. has stable prices, we see increasing prices, which are tied to rising gas prices. There have been no results of these reforms. The idea of reform was right—it worked in the U.S. The delivery of the promises, however, did not happen. There were substantial elements in the reform design that did not protect the system from anti-competition effects. The other problem is that it was intentionally designed to preserve regional monopolies. The reforms did not take into account the risks of the emergence of Gazprom—we had no idea that Gazprom wouldn't be unbundled. Gazprom emerged and started buying electricity companies. In passing our reforms through, we made the sector vulnerable to a predatory Gazprom. The government also failed to keep its promise on unbundling and liberalizing the sector, and we'll be feeling the repercussions of that for a while.

*Independent gas producers in Russia are taking up more and more domestic market share and are frustrated with Gazprom's fickle treatment of its trunk pipeline system. Both Putin and some arbitration courts have reprimanded Gazprom for its actions. Do you think there is a chance that Gazprom will be forced to relinquish control of the system?*

There is no such thing as independent gas producers in Russia. They might be independent from Gazprom, but they are all integrated into part of the existing vertical system. Rosneft is a state controlled company. Novatek might seem like an independent, private company, but it's owned by Gennady Timchenko. I have been in court – he sued me for libel for my book, *Putin: the Results*. So, I know a lot about this man and he is connected with Vladimir Putin's clan. A company owned by him cannot be considered an independent gas producer.

So, it important to understand that it is not a market regulatory process, subject to laws; it is a kind of an administrative bargain within the same group. The ultimate decision for access to pipelines is only fractionally connected with legal mechanisms – legislation. 99% of this bargain happens behind closed





doors and the legal aspects of access don't matter much.

**“[Third party access] isn't a legal political process or policy—it's little more than a bargain.”**

One of the first things Putin promised as prime minister was to ensure pipeline access for independent gas producers, particularly in regards to associated gas. When I worked in the Federal Energy Commission, I was the author of the draft resolution that was targeted at improving the access rules for independents, which was finally adopted by Kasyanov's government on the 3rd of May 2001. There was one single issue, a direct conflict between myself and Gazprom. We said, 'give us full disclosure of the actual information of the structure of load of the pipeline. You say there is no space, so let's verify that with numbers.' They said, 'information on the actual load of the system, no way – it's a state secret – disclosing it undermines the state's national security.' We said, 'okay, let's issue an order according to which you would disclose it to only a few individuals in the government, ministers, maybe deputies, who already have access to top-secrets and who have submitted signatures promising they will never disclose any top-secrets, and if they do will be persecuted.' They said, 'no way, it still undermines national security.' At the end of the day, it was excluded. Kasyanov understood the importance of it.

Apart from a few bottlenecks, (solvable in 1-2 years) the average free capacity of Gazprom's system is like 30-40% easily. There is plenty of room for gas from independent producers but they do not want the public to know because it undermines public national security. When Gazprom denies access they say it is because there is not enough space, but this information is not available and kept hidden. It is hidden by Gazprom's huge political clout and access to top politicians. In the 1990s Gazprom enjoyed wide protection under Prime

Minister Chernomyrdin and when government agencies asked for information they said, 'what could you want? We're working directly for the prime minister, ask his staff.' Gazprom had three difficult years under Vyakhirev after Chernomyrdin's departure and before Putin. But then the savior came in Putin, and then there was really no need to explain their actions because they were working directly with the president. Every time Miller had a confrontation with the government on issues like access, he wrote a letter to Putin and Putin signed something like 'I mostly agree with the chairman of Gazprom, and government please take my opinion into account.'

As to access to pipelines, access can happen in the modern environment, from time to time, on a political bargain basis, depending on the political weight of certain individuals who are behind that, be it Sechin of Rosneft or Timchenko of Novatek. This isn't a legal political process or policy; it's little more than a bargain.

*You have three big personalities with Miller, Sechin, Timchenko, as heads of gas producing companies and since personal relations are so important in this business with communication between these companies, how do you see the state of these relationships now.*

You've forgotten one important person: Putin. I'm convinced that since the installment of Miller as the nominal CEO, Putin has been the de facto acting CEO of Gazprom. It's not that Miller is not important; he has a role, but it's just a façade. Key decisions over Gazprom are made personally by Putin. There are still disputes, whether it's a 20 million or a 50 million dollar transaction. It's quite clear that if it's something in that range, Putin has veto power.

It's Putin's company. At press conferences, when asked certain questions about projects like Nordstream, he knows each compressor station, where it's located precisely, the capacity, how many people work there. He's overwhelming in terms of his knowledge and this can be the sign of only one thing – that he is actually taking part in the decision making of all this stuff. At the very least he is briefed before things formally happen. It's not the rivalry of



three more or less equal or comparable characters—you have somebody on top of the pyramid, acting as an arbiter.

Now as to how relations are concerned, first I think for Sechin it is still important for him to define his precise role. His vision of development of Rosneft and its role is unclear. He is acting like a person who is far beyond Rosneft's interests, who wants to build something bigger. And you have Rosneftegaz, which is meant to be an umbrella for much wider activities. I think the problem with Sechin is he is torn apart between the different capacities – the big capacity and the bigger capacity. I believe over time he is going to be drowning in those multiple challenges because the decisions he makes are so huge and take such great professionalism. So, it takes figure much bigger than Sechin to overcome that. I think what is happening now, if you take a look at the media at the publication just today, he is already drowning in these multiple electricity asset conflicts with the government—Dvorkovich and others. In some cases, he has taken over and in some he is losing. At some point you have to choose who you are. I think his problem is that you cannot effectively act in multiple capacities at once.

Timchenko is a smart guy who is truly focused on the business side of things. This is why he is relentless and insists on one specific issue, one specific task: getting the permit to directly export gas from the Yamal LNG project. I think that so far the behavior of Gazprom toward Timchenko and Novatek has been characterized by some visible concessions. They have given way on some of the issues that were previously unthinkable: major LNG project, major fields in Yamal and Gadon, even discussion of direct marketing in export, and some concessions on the domestic market.

With previous domination of Gazprom in the gas producing industry, it was something previously unthinkable. That is on one hand the result of direct interference by Putin, because Putin directly told them to stand down: 'this time we allow my friend Timchenko to do this and that.' This means

that there is an arbiter to this triangle that you mentioned before. Another point is that these concessions are starting to look similar to Vyakhirev's behavior in his late years in 2000s when he generously gave assets to friends, particular green fields for developments. However, I think that with Yamal Export LNG, Gazprom realizes that the sudden rise of Novatek is becoming a threat to Gazprom because it undermines some of the core principles of its identity, export. I think they have become more active in this regard because they felt that consumers, with whom they could potentially negotiate, had already at least waited for the opportunity to talk directly with Yamal LNG. This is something that fuels Gazprom's anticipation with granting Novatek rights to directly export gas and you see this issue has been held down directly and the 13th February.

*What will happen with energy market modernization and how will it be influenced by timing and/or politics? Do you think Gazprom will change structurally, and if so, will they look into changing the pricing mechanism?*

To make a long story short, under the current political regime, I don't expect any dramatic change in policies. Maybe there will be some attempts to give more flexibility, more ground to private players, but this will confront the appetites of the elders, the champions, to keep the situation as it is. It will likely be pretty similar to the scheme used with Yamal LNG or the one that contributed to Shtokman's collapse—Gazprom's need to dominate. This does not allow for real partnership to emerge. The partnership as Russians understand, is you sit and wait for my order and when I'm giving them you start working. Effectively, my point is that if you want to make some conclusions for what will happen in the future, look at the past. In the past decade what has happened is major partnerships between Russian companies and international partners have collapsed—partnerships that had high hopes invested in them. Conoco completely exited from Lukoil, for instance.

*What benefits could improved transparency yield?*

Gazprom needs to rethink its entire marketing strategy. They need to ask themselves, 'do we anything



beyond long term contracts?' People want their prices to be more linked with spot prices. Is Gazprom ready? Gazprom should consult energy experts and move from a system where they're on the defensive with long-term contracts, to a system where they're competitive and on the offensive. There's a feeling of fundamental dissatisfaction among customers. Right now, they are getting huge salaries - they shouldn't be paid for just sitting and waiting around. I warned them that they were going to get hit by competition and they ignored those threats. Changing just one thing won't help, they need to learn how to go out and win out on the spot market.

Milov's presentation was video-taped, watch it in full here: <http://www.youtube.com/watch?v=nzh7DQAmrKk>.

To stay up to date with Mr. Milov's political work and developments in the Russian Energy sector, visit his blog at <http://v-milov.livejournal.com/>. ♦

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For more interview reports and energy articles, watch for the monthly release of the ENERPO Journal. The ENERPO journal covers a wide variety of energy issues, and includes articles authored by students, faculty, and EUSP affiliates, as well as expert interviews like this one.

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