

## RUSSIA AND CHINA AGREE TO AMBITIOUS GAS AND OIL TRADE PROGRAM

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### THE NEW RUSSIA-CHINA ENERGY RELATIONSHIP: GAS MOVING TO CENTER STAGE

**DATE**

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President Vladimir Putin's visit to China this week, at the head of a delegation including about 1,000 Russian government and corporate officials, was marked by the signing of several energy agreements. The centerpiece is the March 21 accord between Gazprom and the China National Petroleum Corporation (CNPC) to begin Russian natural gas exports to China in about five years at the level of 60–80 billion cubic meters (Bcm) per year, following construction of two new pipelines, one carrying West Siberian and the other East Siberian gas. But the Russian-Chinese agreement as publicized so far is sketchy on several issues that could complicate implementation of the historic deal. The latest developments have several key implications for the future of Russian-Chinese trade in the gas and other sectors:

- **The gas trade accord signals a major effort to diversify Russian export routes, but skirts the controversial issue of which fields will supply the gas, and implementation will likely be delayed.** By endorsing a dual gas export pipeline strategy, Russian authorities have left unresolved for now their internal disagreements about the long-term strategy for development of East Siberian gas (the subject of a long-delayed study by a Russian interministerial commission). At the same time, Gazprom has taken on a major new export project commitment (it is estimated that the new pipeline system will cost at least \$10 billion) that will compete over the next few years for scarce investment and hydrocarbon resources with other ambitious European export infrastructure projects, suggesting a similar lack of agreement on fundamental priorities within Gazprom, aside from endorsement of all projects of interest together.
- **China's ability to pay market prices for Russian gas, as anticipated by Russia, is also a major question mark.** China's ability to pay world prices for Russian gas remains highly uncertain, despite Russia's stated expectation that it will pay world market (European) prices. Without specific

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Chinese gas import contracts based on commercial prices (yet to be negotiated), Russian implementation of the gas accord will be further complicated. The agreement to use the European oil-based basket as the price basis for gas exports is nevertheless significant in itself. The Russians wanted liquefied natural gas (LNG). The Chinese wanted coal. In the end, they appear to have settled on a familiar benchmark, therefore comfortable to both sides and notionally halfway between the two criteria.

- **Increased Russian oil deliveries to China are likely to be the first tangible result of expanded hydrocarbon trade plans.** Transneft and CNPC agreed to a feasibility study for a branch line to China from Russia's planned East Siberia–Pacific Coast (ESPO) pipeline, and the Russian government predicted the China spur would be built by 2009. According to Transneft, CNPC has committed \$400 million to finance the feasibility study and construction of the new pipeline. The branch line will carry half of the 80 million metric tons (mt) per year (1.6 million barrels per day planned capacity of ESPO to Chinese markets, according to Rosneft. The implied total of 40 mt per year (800,000 barrels per day [bd]) would represent a several-fold increase in current Russian oil exports to China, amounting to about 8 mt (160,000 bd) in 2005 or around 9 percent of total Chinese oil needs.
- **Russian insistence on restructuring the countries' trade away from raw materials could act as a significant constraint on their economic and in particular energy partnership.** Putin has complained of the declining share of finished Russian goods in exports to China, noting that the scale of Russian machinery and equipment exports to China contracted sharply in 2005. But the Kremlin's stated interest in diversifying the trade structure (as part of the broader goal of Russian economic diversification away from dependence on raw materials) clashes with China's growing interest in diversifying its energy supplies away from the Middle East. The chief value of the countries' trade relations from China's perspective, aside from arms (China is the largest purchaser of weapons from Russia), may lie precisely in the Russian hydrocarbons needed to fuel China's rapidly expanding economy. In short, the two countries' aims are contrary: Russia wants to export value-added; the Chinese want to add the value themselves. This could lead to problems later.

## KEY UNANSWERED QUESTIONS

Perhaps the best indication of the importance that Russia attaches to growth of its trade with China is the composition of the delegation that Putin led to Beijing this week. Not only was the Russian delegation huge; it included many top-level government and company officials, among them the ministers of foreign affairs, energy and industry, natural resources, and atomic energy; the heads of Gazprom, Rosneft, the Unified Energy Systems electric power monopoly, and the Russian Railways Corporation (all state-controlled corporations); and the head of TNK-BP. The frequency of meetings between the Russian and Chinese leadership recently also indicates their commitment to a breakthrough in trade relations: the latest summit between Putin and Chinese President Hu Jintao was their fifth in less than one year.

Russian-Chinese trade is currently booming, having increased by over 30 percent annually for several years in a row, rising from a total of \$10 billion in 2001 to about \$29 billion in 2005. But this business still accounts for a comparatively small share of both countries' overall foreign trade, and Russia and China aim to increase trade by 2010 to \$60–\$80 billion per year, which could make China Russia's single largest trading partner. Much of the planned increase in Sino-Russian trade volumes will evidently depend on the implementation of energy trade agreements. But full realization of the trade opportunities hinges in turn on further progress on several sticky energy issues that Moscow and Beijing did not clearly address during this week's summit.

## Where Will the Gas Originate?

In comments to Russian journalists in Beijing following signing of the accords, Putin put particular emphasis on the sufficiency of Russian gas supplies needed to reach the planned level of exports to China and indicated that West Siberian gas might provide the basis for initial deliveries via a new “Altay” pipeline crossing Russia’s western border with China, between Kazakhstan and Mongolia. “We have a clear idea of the volumes that might be supplied by this and the other planned route,” said Putin, “about 30–40 Bcm per year in each case.” At the same time, Putin stressed that the Russia-China gas accord will not prevent Russia from meeting any of its other gas export obligations under the terms of agreements with other partners in Asia as well as Europe. But such a conflict may be inevitable, particularly given uncertainties about the availability of sufficient supplies for Gazprom’s ambitious programs to construct a new \$6 billion North European Gas Pipeline (NEGP), with capacity of 55 Bcm per year by 2013, and a Baltic LNG export terminal at Ust-Luga.

Another key problem is the size of both the pipeline coming south into the Russian province of Altay and China’s West-East pipeline into which the new Russian Altay export pipeline would feed. The existing Russian pipeline terminating in Altay is quite small and already full carrying gas for local consumption in Novosibirsk, Kemerovo, and Altay Kray itself, so an entirely new pipeline would have to be laid to support any sizable volume of exports. Assuming that the questionable economics of major new Russian export pipeline infrastructure are not an obstacle (this may be the case after all, as similar questions did not prevent Gazprom from embarking on NEGP or the Blue Stream pipeline to Turkey), Gazprom will still need to negotiate with the Chinese on expansion of the West-East pipeline and take what will already be expensive gas on the border some 3,000–4,000 kilometers (km) to the primary Chinese markets (a hurdle that Gazprom has not confronted in its other new export capacity initiatives).

Less information is available about the likely route of the new eastern Russian gas export pipeline, but initial reports following the Beijing summit indicate that this would originate on Sakhalin in the Russian Far East (which would be in keeping with Gazprom’s long-standing preference for an eastern export strategy based on Sakhalin offshore gas first and foremost) and go through Russia’s Khabarovsk province to China. But the Sakhalin consortia are not currently forecasting gas production anywhere near the level of 30–40 Bcm per year by 2011 (and their initial gas streams are largely dedicated to other Asian export markets or the domestic Russian market). The eastern export pipeline could ultimately be supplied by gas from a variety of Russian Far East and East Siberian deposits in addition to offshore Sakhalin, including the giant Kovykta field, licensed to Rusia-Petroleum (in which TNK-BP has a controlling interest). Full-scale development of any eastern Russian fields is still contingent, however, on clarification of the Russian government’s overall priorities for the eastern gas sector.

The Russian government is intent on creating a master plan for the eastern Russian gas sector, but has yet to reach a consensus on such fundamental issues as which fields should be developed primarily in order to supply domestic as opposed to export markets and what role foreign investors might play. This uncertainty in turn complicates the task of would-be investors in both Russian gas export projects and internal gasification programs. Full-scale development of a new generation of Russian gas in East Siberia, necessary to fill at least one of the planned Russia-China pipelines, is unlikely to occur before government policy priorities are defined (an interministerial working group led by Anatoly Yanovsky that was established in 2004 to develop a strategic program for gas production and transportation in eastern Russia has repeatedly postponed a planned report with its recommendations).

The difficulties involved in realizing either planned Russia-China gas export pipeline project by 2011 (at 30–40 Bcm per year) suggest that the Chinese may not be receiving nearly as much gas as currently forecast within five years. Nevertheless the gas deal is historic for several reasons. In particular it

- signals implementation of the "Medvedev doctrine" of country-to-country gas contract negotiations (as enunciated by Gazprom Deputy Chairman Alexander Medvedev): agreement to the volumes and the time frames before committing to the precise routes and sources later
- represents a crucial step by Gazprom in realization of its commercial strategy of becoming a global energy company
- bolsters Russian geopolitical influence in the Asia Pacific region generally
- indicates that Russia is seriously competing for future Chinese gas markets, particularly with Central Asian hydrocarbon exporters who have beaten Russia in the race to build the first oil pipeline from the Former Soviet Union to China
- creates a major alternative to Russia's primary European export business that may enhance Gazprom's bargaining position vis-à-vis European gas importers

### **How Much Will Russia's Gas Cost China?**

Another major question mark is China's ability to pay for such large gas volumes at market-based prices. Foreign Minister Sergey Lavrov has said that Russia expects China to pay market prices (or the same price that Europe pays) for Russian gas. But recent developments in the Chinese gas sector suggest that for the foreseeable future China is unlikely to be able to pay market prices for such a large quantity of gas as Russia is planning to sell. The primary customers of natural gas in China, the power companies, have not been able to afford market rates for gas lately, partly due to ceilings on the retail price of electricity in China. As a result, China's annual gas consumption stood at only 41 Bcm in 2004, recently accounting for around 3 percent of total energy demand and 2 percent of China's power plant fuel supplies.

To be sure, the Chinese government's 11th Five Year Plan, covering 2006–10, envisages gas consumption reaching 100 Bcm per year, rising to 6–8 percent of total energy demand. However, the surge in world gas prices of recent years has had a negative impact on China's gasification initiatives. Nearly all of the new power plants approved by Beijing recently will be fired by China's own comparatively abundant and cheap coal supplies, despite the ecological costs. Indeed, in 2005 the China National Offshore Oil Corporation decided against a multibillion dollar gas deal based on an Australian field because of failure to agree on price (allowing three Japanese utilities to secure contracts instead), even though China's gas-fired power plants are suffering from shortages (about 40 percent of the country's total gas-fired capacity has been closed recently because of insufficient gas).

In theory, Russia might help to create a market for its gas in China by participating in construction of a new generation of gas-fired power plants. But the focus of Russian-Chinese collaboration in the electricity sector is evidently nuclear power plant construction. Russia is reportedly planning to participate in tenders for each of the 27 new nuclear power plants that China plans to build in the next 15 years.

## What Role for Oil in the Transformed Sino-Russian Energy Partnership?

Although the Sino-Russian oil trade will become secondary to gas if the March 21 accords are fully implemented, the first tangible result of the recent agreements in terms of bilateral trade is likely to occur in the oil rather than gas sector, in the form of increased Russian oil exports to China and new Rosneft-CNPC oil industry initiatives.

Indeed, the breakthrough on the oil pipeline talks announced in Beijing is possibly of even more importance to China, which has long lobbied for a crude export pipeline from Russia, than the gas deal. The planned pipeline would extend from Skovorodino in Russia, the planned terminus of phase one of ESPO, some 70 km to the Russia-China border. Russia aims to complete the first stage of ESPO construction, which Russia estimates will cost \$6.5 billion, in 2008, and in Beijing the Russian government indicated that the China spur would be built by 2009. But this schedule may prove optimistic given several remaining unsettled questions including the sources of financing, both for the spur as well as for the first phase of ESPO from Taishet in Irkutsk province to Skovorodino, as well as the siting of a Pacific coast oil export terminal to be constructed at the same time as the first pipeline segment.

In the absence of a pipeline, the level of Russian oil exports to China will remain constrained by the capacity of the Russian rail network, and by the economics of rail shipments (typically two to three times more expensive than pipeline exports). The state-controlled Russian Railways Corporation (RRC) has forecast an increase in rail exports of crude to China to as much as 15 mt (300,000 bd) in 2006, up from around 8 mt (160,000 bd) in 2005. RRC has also signaled its interest in developing rail infrastructure further, with the aim of transporting 30 mt per year (600,000 bd) to China.

Russian railway authorities stand to benefit from the ESPO project in the near term, as crude would be shipped by rail from Skovorodino to the Pacific coast for export to Asian markets, during the interim period while the second major ESPO pipeline segment is being built. But once the planned pipeline goes into operation, much, if not all, of this anticipated new rail industry revenue stream could evaporate. The rail industry would then be all the more dependent on the Russia-China crude trade, and resistance by state railway authorities to any projects putting this trade at risk may still undermine the Russia-China oil pipeline deal.

One other energy accord signed in Beijing on March 21 involved CNPC and Rosneft. The two companies agreed to new partnerships that may reportedly include joint participation in Russian auctions for new upstream acreage in Timan-Pechora and elsewhere that Rosneft has expressed interest in developing but may not be able to manage alone, as well as downstream activity in China. There is a precedent for Sino-Russian exploration and production partnerships of this sort in the form of the Rosneft-Sinopec offshore Sakhalin venture in the Veninsky block of Sakhalin-3, with Sinopec funding the current exploration stage. However, possible Rosneft-CNPC joint refining and product sales in China would represent a new type of Russian-Chinese oil industry partnership. ■