



Defence Academy
of the United Kingdom

Defence Academy of the United Kingdom

Russian Series

The Russo-Chinese Energy Relationship
Dr Mark A Smith



The Russo-Chinese Energy Relationship

Dr Mark A Smith

Key Findings

- China became Russia's biggest trading partner in early 2009.
- Russian exports of energy form a significant part of the Russo-Chinese trade relationship. Russia is currently the fourth largest supplier of oil to China, supplying about nine per cent of her needs.
- The development of the East Siberia Pacific Ocean (ESPO) oil pipeline means that Russian energy supplies to China will increase. Russia will supply China annually with 15 million tonnes of oil for 20 years. This is to begin in 2011. Gas supplies are currently at zero level, but Russia intends to start supplying gas to China in 2014-15 at the rate of about 70 billion cubic metres annually.
- The Russian energy strategy to 2030 adopted in November 2009, envisages that although Europe and the CIS countries will still remain the main markets for the Russian energy exports, their share will gradually fall. Instead, by 2030 the share of Asia-Pacific in the exports of crude oil and oil products is expected to rise to 22-25% (from 8% now), and in the exports of natural gas to 19-20% (from zero now).
- Russia is interested in Chinese investment in the Russian Far East and Siberia to develop its energy sector. The Energy Strategy envisages that at least 12 per cent of the investment in the Russian energy sector by 2030 should be from overseas. China has so far been reluctant to invest significantly due to the poor investment climate. China also suspects that Russia is trying to play Beijing off against Tokyo as energy customers.
- Chinese energy consumption has increased dramatically since 2001, and will continue to increase significantly by 2030. Between 2001 and 2007, China's dependence on imported energy grew from 6 per cent to 11 per cent. The IEA projects that by 2030, oil imports will supply 75 per cent of total Chinese oil consumption. The IEA believes that China may burn 16.5 million barrels per day by 2030, after buying 13.1 million barrels abroad.
- Most Chinese oil imports come from the Middle East and Africa. This makes Russian oil and gas attractive as it is not dependent on being shipped. However Russian oil and gas fields are distant from the most populated and economically significant regions of China.
- China intends to depend on Russia for no more than 20 per cent of her energy needs. China is also developing supply arrangements with Central Asian States.
- Russia's importance as an energy supplier to China is likely to grow, but progress will be slow.

Contents

Introduction	1
The East Siberia Pacific Ocean (ESPO) Oil Pipeline	2
First Stage	2
Second Stage	2
China's Energy Consumption	5
Oil	5
Gas	5
Russia as an Energy Supplier to China	6
Chinese Energy Strategy	10
Chinese Concern Over Russia as an Energy Supplier	12

The Russo-Chinese Energy Relationship

Dr Mark A Smith

Introduction

China is a most powerful country, which is the world's factory. It now makes all products, including those which we buy in foreign markets. It is a very serious and very powerful country, with which it is necessary to be friends. And therefore, of course, the fact that there are now some, let's say, unsettled relations with Chinese migrants, who have lived in the country for a long time, only harms us, because - I'm stressing once again - China is the most influential, largest, most powerful neighbour which the Russian Federation has. And the attitude towards Russia has been quite good for the time being. I would even say - good. And we must value this. It seems to me that we should not forget about our strategic interests here. ¹

China became Russia's biggest trading partner in early 2009.² Russo-Chinese trade in 2008 reached record levels, and the trade turnover stood at \$58.8 billion. However trade fell significantly in 2009 as a result of the global financial crisis. It fell to \$38.8 billion. As a result, Russia found itself in the 14th place among PRC's trade partners, accounting for 1.7 per cent of China's total trade with foreign countries. Russian exports to China were \$21.3 billion (a decrease of 10.7 per cent), imports \$17.5 billion (a decrease of 47.1 per cent). The positive balance was \$3.8 billion.³ However, according to Duma Chairman Boris Gryzlov, trade by May 2010 had reverted to pre-crisis levels, increasing by nearly 50 per cent since the beginning of 2010.⁴ In August 2010, at the 13th meeting of the Russia-China inter-governmental trade commission it was announced that the bilateral trade volume reached \$30.7 billion from January to July 2010. This represented a 49.6 per cent increase year-on-year. Mutual investments have also increased in 2010, as Chinese direct investment to Russia jumped up by 58.5 per cent during the first half of 2010 and the Russian investment to China jumped up by 18.3 per cent.⁵

Russian energy supplies to China form an important part of the trade relationship. Although trade declined overall in 2009, supplies of oil rose by 31 per cent, surpassing the 15 million tonne mark.⁶ The energy relationship between the two states is becoming increasingly important and it will also affect Russia and China's energy relationships with the Central Asian states.

In March 2006 then first deputy prime minister Dmitry Medvedev stated that the most promising domain for Russo-Chinese cooperation was the energy sector.⁷ It was intended

¹ The deputy head of the Duma Security Committee, Gennady Gudkov, Russian Silver Rain Radio, 24 March 2010

² Xinhua news agency, 21 March 2010. This is among individual nations. The EU remains the RF's overall biggest trade partner. See the website of the Russian Federation's trade representative office in the Chinese Peoples' Republic <http://www.russchinatrade.ru/ru/about-us>

³ ITAR-TASS, 9 February 2010

⁴ Xinhua news agency 18 May 2010.

⁵ Xinhua, 20 August 2010

⁶ 1 tonne of oil = 7.4 barrels.

⁷ RTR Russia TV, 17 March 2006. On 22 March 2006, Medvedev stated:

Both sides have an interest in cooperating on energy and, just as our Chinese partners have an interest in expanding the supply of energy from Russia, we have an interest in keeping this market and moreover, as our president said yesterday, in diversifying energy supplies to include not only supplies

that deliveries of Russian oil to the Chinese market would total 15 million tonnes in 2006. In 2006, Russia exported a total of 10 million tonnes of oil to China.⁸ In 2005 the UES signed a protocol on a long-term cooperation setting the goals of exporting to China 50bn kWh of electric power by 2015.⁹

A few days after Medvedev made this statement, then President Vladimir Putin visited China and during his visit three agreements were signed on energy cooperation.¹⁰ These were:

- An agreement between the China National Petroleum Corporation (CNPC) and Rosneft for forming joint ventures on further oil cooperation
- A memorandum of understanding (MOU) between CNPC and Gazprom for natural gas supply to China
- A summary of negotiations between CNPC and Transneft.

The East Siberia Pacific Ocean (ESPO) Oil Pipeline

Transneft began construction in April 2006 on a pipeline that will span almost 3,000 miles from the Russian city of Taishet to the Pacific Coast. The project will be completed in two stages.¹¹

First stage

The 2,757 kilometres (1,713 miles) long first stage of the pipeline, running from Taishet in Irkutsk Oblast to Skovorodino in Amur Oblast.

The first stage of the project includes the construction of a 600,000 barrels per day (bbl/d) pipeline from Taishet to Skovorodino. CNPC signed an oil-for-loans agreement with Russian companies Rosneft and Transneft for a total of \$25 million in early 2009 and entails China financing the 40-mile pipeline spur to run from ESPO to the Chinese border in exchange for crude oil deliveries. The first phase of ESPO was completed in December 2009 and will deliver 300,000 bbl/d to the Chinese border beginning in 2011 for 20 years.

Second stage

Construction of the 2,100 kilometres (1,300 miles) long second stage from Skovorodino to the Pacific Ocean would start after launch of the first stage. It would be commissioned by 2014. In meantime, oil will be transported from Skovorodino to Kozmino by railway.

The second phase will extend the pipeline from Skovorodino to Kozmino Bay on the Pacific Coast, which is expected to accommodate Russian crude oil exports to both China and Japan. However, the second phase of the ESPO is not likely to be commissioned until 2015 or thereafter. Construction began in January 2010. It will increase the capacity to 50 tonnes of oil annually.

to Europe, which is a traditional and extremely important market for us, but also developing supplies to the Far East and Asia. NTV Mir 22 March 2006.

⁸ Xinhua 10 July 2007

⁹ RTR Russia TV 17 March 2006.

¹⁰ Xinhua, 21 March 2006.

¹¹ <http://www.transneft.ru/projects/project/?zplD=4248> ;
http://en.wikipedia.org/wiki/Eastern_Siberia%E2%80%93Pacific_Ocean_oil_pipeline

There will also be a spur to China. The 64 kilometres (40 miles) long section from Skovorodino to the Amur River on Russia-China border would be built by Transneft and the 992 kilometres (616 miles) long section from Russia-China border to Daqing would be built by the China National Petroleum Corporation. It is expected to be completed by October 2010.

Duma chairman Boris Gryzlov said in May 2010 that "the launch of the Chinese section of the East Siberia - Pacific Ocean (ESPO) oil pipeline is expected to be the most promising and large-scale project of the Russian-Chinese economic cooperation this year".¹²

When the whole pipeline is in operation, the volume of Russian oil supply to China through it will reach 15 million tonnes a year.

In August 2010, the launch ceremony for ESPO took place. The first cubic metres of technological oil were pumped into the Russian section of the pipeline. The pipeline will reach full capacity this year.¹³ Vladimir Putin took part in the launch ceremony and stated:

This year, Russian oil will go to China. I would like to note that this is not just about supplies of Russian crude oil. This is indeed a multidimensional project that strengthens our energy collaboration. Chinese partners are taking part in oil extraction in the Russian Federation, while Russian enterprises are shareholders in oil refining enterprises and distribution networks in China.

This is an important project for us, because we are starting to diversify supplies of our energy resources. Until now, the bulk of supplies have been made to our European partners. It is still so today, our European partners are getting some 120-130m tonnes of Russian oil [a year]. For now, we supply a small amount to the Asia-Pacific region. With the launch of this section of the ESPO, the East Siberia pipeline system that eventually runs to the Pacific coast, with the launch of this section we will be supplying 30m [tonnes], and up to 50m [tonnes a year] when the ESPO is extended. And that is already noticeable, noticeable competition with the European route.¹⁴

Putin had made similar comments back in February 2007 about Russia's interest in developing energy exports to China as in addition to Europe, as European states were states seeking to diversify their energy supplies.¹⁵

¹² Interfax, 20 May 2010.

¹³ It is scheduled to come into operation on 31 October 2010. 'China-Russia oil pipeline scheduled for running on Oct. 31', Peoples' Daily Online, 15 June 2010
<http://english.peopledaily.com.cn/90001/90776/90883/7026504.html>

¹⁴ Rossiya 24, 29 August 2010.

¹⁵ Vesti TV 1 February 2007.



This map is taken from the Russia Country Analysis Brief, Energy Information Administration, US Department of Energy, May 2008.

<http://www.eia.doe.gov/cabs/Russia/Full.html>

<http://www.eia.doe.gov/cabs/Russia/images/RFproposedFarEastPipeMap.pdf>

Although in May 2007 Duma speaker Boris Gryzlov expressed dissatisfaction with the structure of Russo-Chinese trade, doubtless referring to the fact that Russian exports to China consist largely of raw materials, notably hydrocarbons, energy will, as Dmitry Medvedev noted in March 2006, remain an important component of the trade relationship between the two states.¹⁶

China's Energy Consumption¹⁷

Oil

Oil accounts for about 20 per cent of China's energy consumption, and Chinese oil consumption will grow over the next few years. China is currently the second largest consumer of oil (the USA is the largest), consuming an estimated 7.8 million barrels per day (bbl/d) of oil in 2008. China's net oil imports were approximately 3.9 million bbl/d in 2008, making it the third-largest net oil importer in the world behind the USA and Japan. EIA forecasts that China's oil consumption will continue to grow during 2009 and 2010, with oil demand reaching 8.2 million bbl/d in 2010. China's oil production is forecast to remain relatively flat at 4 million bbl/d in 2009. According to the Oil & Gas Journal (OGJ), China had 16 billion barrels of proven oil reserves as of January 2009.

According to FACTS Global Energy, China imported 3.6 million bbl/d of crude oil in 2008, of which approximately 1.8 million bbl/d (50 percent) came from the Middle East, 1.1 million bbl/d (30 percent) from Africa, 101,000 bbl/d (3 percent) from the Asia-Pacific region, and 603,000 bbl/d (17 percent) came from other countries. In 2008, Saudi Arabia and Angola were China's two largest sources of oil imports, together accounting for over one-third of China's total crude oil imports. In 2008 Russia was the fifth biggest oil supplier to China, and in the first five months of 2009, she was the fourth. Russia supplies about 9 per cent of China's oil needs.¹⁸

2008	Jan-May 2009
Total 3,568 Thousand bbl/d	Total 3,585 Thousand bbl/d
Saudi Arabia 725 th. bbl/d	Saudi Arabia 740 th. bbl/d
Angola 596 th. bbl/d	Iran 544 th. bbl/d
Iran 425 th. bbl/d	Angola 541 th. bbl/d
Oman 291 th. bbl/d	Russia 299 th. bbl/d
Russia 232 th. bbl/d	Oman 275 th. bbl/d

Gas

In 2006, gas only accounted for three per cent of Chinese energy consumption, although its share is slowly increasing. In 2007, China produced 2,446 billion cubic feet (Bcf) (69.26 billion cubic metres bcm) of natural gas while the country consumed 2,490 Bcf (70.508 bcm), and for the first time in almost two decades, the country became a net natural gas importer. Consumption for 2007 rose from 2006 levels by about 25 percent, and the country began importing liquefied natural gas (LNG), amounting to nearly 140 Bcf (3.964 bcm) in 2007, to fill the gap. EIA projects gas demand to nearly triple by 2030, growing at about 4.5 per cent per year. To meet this anticipated shortfall, China is expected to continue importing natural gas in the future via LNG and is considering a number of potential import pipelines from neighbouring countries. China does not currently import gas from international pipelines. As

¹⁶ ITAR-TASS, 14 May 2007.

¹⁷ The information in this section comes from the US Department of Energy, Energy Information Agency Country Analysis Brief for China July 2009
<http://www.eia.doe.gov/cabs/China/Background.html>

¹⁸ See Erica S. Downs, 'China's Energy Rise', in Brantly Womack ed. *China's Rise in historical perspective*, New York, Rowman and Littlefield, 2010, p.187.

noted above, in March 2006 a MOU between CNPC and Gazprom for natural gas supply to China was signed. This MOU consisted of two pipeline proposals that could send natural gas supplies from the Russian Far East in the next decade. The Western route, known as the Altai Project would connect the Kovykta gas field to the Xinjiang region in northwest China. The proposed pipeline would have a capacity between 1,060 – 1,410 Bcf/y (30.015 – 39.926 bcm) and could be operational by as early as 2011. A second proposed route, called the Eastern pipeline, would connect the Russian Far East (RFE) and Sakhalin Island to north-eastern China, most likely terminating near Beijing. Plans for the Eastern route also call for a pipeline with 1,060 – 1,410 Bcf/y (30.015 – 39.926 bcm) capacity.

This MOU was confirmed in a further agreement in October 2009. Gas will be piped via two routes: some 30 bcm via the so-called 'western' route (from fields in Western Siberia) and another 38 bcm via the 'eastern' route (from Eastern Siberia, the Far East and the Sakhalin shelf). Thus, the total volume of Russian gas earmarked for the Chinese market in the long run stands at almost 70 billion cm – broadly corresponding to the total share of 'eastern direction' in Russian gas exports envisaged in the Russian Energy Strategy until 2030, which was approved in November 2009.¹⁹ Deputy Prime Minister Igor Sechin said that it was intended to launch supplies between 2014 and 2015.²⁰

Russia as an Energy Supplier to China

As already noted Putin commented back in February 2007 on Russian interest in developing energy exports to China as a response to European states seeking to diversify their energy supplies.²¹ The Russian Energy Strategy until 2030 envisages that although Europe and the CIS countries will still remain the main markets for the Russian energy exports, their share will gradually fall. Instead, by 2030 the share of Asia-Pacific in the exports of crude oil and oil products is expected to rise to 22-25% (from 8% now), and in the exports of natural gas to 19-20% (from zero now). China's economic growth and her increasing need to import oil means that Moscow sees her eastern neighbour as potentially lucrative market.

Although Moscow has been concerned for several years about the fact that its exports to China consist largely of raw materials, the Russian Federation nonetheless sees energy exports as an important aspect of its relationship with China, and as a means of consolidating the bilateral relationship. In September 2007 when the Minister of Natural Resources, Yury Trutnev visited China, he commented on Russia's interest in foreign investment in developing its energy resources. He noted that, "we do not hide our position that foreign investors will develop hydrocarbon resources in Russia more effectively if the foreign companies cooperate with Russian ones."²²

In July 2008 Deputy Prime Minister Igor Sechin visited China, and he and Chinese Vice-Premier Wang Qishan launched an energy resources negotiation mechanism. This marked the beginning of the Russian-Chinese energy dialogue. However the results of this were limited. Sechin said that both sides agreed to continue discussion of major bilateral projects.²³

In October 2008 when Premier Wen Jianbao visited Moscow where it was agreed that China would grants \$25 billion in loans to Rosneft (\$15 billion) and Transneft (\$10 billion) to

¹⁹ A Russian version of the Russian Energy Strategy to 2030 can be downloaded here:

<http://www.energystrategy.ru/projects/es-2030.htm>

²⁰ Vesti TV, NTV, RIA Novosti, 13 October 2009.

²¹ Vesti TV 1 February 2007.

²² Interfax, 3 September 2007.

²³ Xinhua, 26 July 2008

guarantee an oil supply to China.²⁴ Rosneft will supply oil to CNPC for 20 years, while Transneft would use a pipeline infrastructure project as collateral. Disagreements over the interest rates on the loan delayed the agreement, but an agreement was eventually reached in February 2009 between Sechin and with Chinese Vice-Premier Wang Qishan.²⁵ Sechin stated:

We have managed to agree on a number of very important documents in oil sector cooperation, which envisage long-term supplies of oil from Russia to China, the construction of a pipeline branch to ensure those supplies and the raising of financial instruments from China to implement these projects. That involves the supply of 15 million tonnes of oil every year over a period of 20 years on loan terms.

In May 2010 Boris Gryzlov stated that Russia and China were discussing the construction of a gas pipeline from Russia to China, which is to pass either eastward via Altay, or westward via Sakhalin, and also the prospects for the construction of generating units Nos 3 and 4 of the Tianwan nuclear plant. He said that Russian companies are also interested in the construction of gas distribution plants in China.²⁶

However, although Moscow sees China as a market for energy exports, poor export infrastructure limits the development of this market. At the moment Russia exports only 5 per cent of her total oil exports to China (300,000 bbl/d), and no gas.²⁷ The oil exports are shipped by railway, although the ESPO which came into operation in December 2009 will allow exports of 1.6 million bbl/d.

Agreement on gas supplies has been hindered by disputes over pricing. China wishes to link the price of gas to coal, but Moscow has unwilling to accept this. China has therefore turned to Kazakhstan and Turkmenistan for gas.²⁸

The export of Russian gas via pipelines to China is also hindered by the fact that the demand for energy is high in the industrially developed south-eastern parts of China, where the deliveries of Russian energy via network infrastructure are hindered by large distances and high costs.²⁹ Most FDI in China is concentrated in the south-east coastal areas, especially Guangdong, which is far from Russia. The areas of China which are nearest to Russian oil and gas deposits are the regions of western and central China, which are sparsely populated and have little FDI. In addition these areas tend to have energy resources of their own. Most Chinese oil is located in the north-west and north-central regions of China.

Vasily Astrov argues that the south-eastern regions of China will increasingly rely on LNG. Gazprom currently has little expertise in the construction of LNG plants. In 2008 Russia had no LNG exports. According to the Energy Strategy to 2030, it is intended LNG exports will comprise 15 per cent of total gas exports by 2030.

²⁴ Interfax 12 November 2008. A Russian source said that according to the memorandum on cooperation in the fuel and energy sector signed in Moscow in late October 2008, Transneft and Rosneft can borrow 10bn dollars and 15bn dollars, respectively, from Chinese banks. The loans were supposed to be provided in exchange for long-term supplies of oil to China by Rosneft and the construction of a branch of the Eastern Siberia-Pacific Ocean (ESPO) oil pipeline to China.

²⁵ Vesti TV, Xinhua 17 February 2009

²⁶ Interfax, 20 May 2010..

²⁷ Vasily Astrov, Current State and Prospects of the Russian Energy Sector, Vienna Institute for International Economic Studies, Research Report June 2010 (No. 363), p.28.

<http://publications.wiiv.ac.at/>

²⁸ See below.

²⁹ Indra Øverland and Kyrre Elvenes Braekhus, 'Chinese Perspectives on Russian oil and gas', in Jeronim Perovic, Robert W. Orttung, Andreas Wenger eds., Russian Energy Power and Foreign Relations, Implications for Conflict and Cooperation, London, Routledge, 2010, p.211-212, and Vasily Astrov, op cit, p.30.

Russia is likely to be hard pressed to achieve the objective in its energy strategy of increasing its energy exports to the Asia-Pacific region to the level of 20-25 per cent of total energy exports by 2030, and will have to continue to export westwards to a Europe which may succeed in reducing its dependency on Russian energy supplies.

It is for this reason that Russia is interested in attracting Chinese investment in the RFE. In March 2010, the former Russian Ambassador to China, and now Federation Council senator Igor Rogachev said that economic and investment cooperation between Russia and China is underdeveloped. He noted that in 2009, the total amount of accumulated Chinese investment in Russia reached about \$1 billion dollars, which was 0.4 per cent of the total volume of accumulated foreign investment in Russia. He also commented that the geography of Chinese companies' investment in Russia was very limited, as Chinese companies have been registered only in 20 per cent of the Russian regions.³⁰ In September 2010 he noted that trade between Russia and China was modest. It peaked in 2008 at 56.8bn dollars. Trade between China and the USA on the same year amounted to over 300bn dollars and between China and Japan to over 200bn dollars.³¹

In October 2009, when he visited China, Putin called for increased Chinese investment in Russia, particularly in Siberia and the RFE.³² He also suggested that China and Russia coordinate their programmes for developing their border regions. He stated:

We know that China has a programme for developing its north-eastern provinces. In Russia we have a similar programme for the development of the trans-Baikal region, eastern Siberia and the Far East. It is clear that coordination of our efforts to develop these regions in China and Russia can produce a synergic effect, to use a fashionable term.³³

In August 2010, he repeated his call for developing the Sino-Russian economic relationship, when he said:

First, I do not think that we are dealing with a kind of an economic expansion from China. Second, as regards China's northern regions, they [the population there] are growing not because there is not enough land in China but because the Chinese government is running a targeted policy related not only to the economy but also to the ethnic composition of its northern territories.

I think that if we eventually build our own work properly, we will only benefit from this. Why? Because we are much more comfortable with having a prosperous and rich neighbour than a neighbour who is poor, sick and needing constant care. Do not forget that we sell hundreds of millions, if not billions, [of dollars] worth of special equipment and weapons to China. These are highly technological products.³⁴

Putin's call for cooperation between the Russian and Chinese border regions echoed an earlier call made by Medvedev in Khabarovsk in May 2009, when he met with Russian regional leaderships and called for coordinating the strategies for developing the RFE and the north-east regions of China.³⁵ Regional cooperation was discussed again in detail at a

³⁰ Interfax, 12 March 2010. In September 2010 he said that the accumulated investment of China in the Russian economy at present amounts to 1.5bn dollars while Russian investment in China stood at 800m dollars. ITAR-TASS 6 September 2010.

³¹ ITAR-TASS 6 September 2010.

³² Vesti TV 13 October 2009

³³ Vesti TV, 13 October 2009. In September 2009, Putin invited foreign companies to help develop the Yamal gas reserves. This seems to indicate a thawing of Russian hostility to foreign investment in the energy sector. RBK TV, Rossiya TV, Channel One TV, Interfax, RIA Novosti., 24 September 2009.

³⁴ Rossiya 24 30 August 2010

³⁵ Vesti TV, 21 May 2009

symposium on Russo-Chinese border trade and regional cooperation held at the 6th Baikal Economic Forum in Irkutsk in September 2010. The symposium was headed by Russian Regional Development Minister Viktor Basargin, and the Head of China's National Administration of Energy Zhang Guobao.³⁶ Basargin said that the Russian government, following a Chinese proposal intended to return to the issue of creating special economic zones in the border areas in order to develop joint projects.³⁷

Russia's call for Chinese investment in the RFE and Siberia is indicative of Russia's need for foreign investment, and of her inability to develop these regions adequately without foreign involvement. The Russian Energy Strategy to 2030 adopted in November 2009, envisages that by 2030, FDI will account for at least 12% of total investments into the Russian energy sector. The Energy Strategy envisages proven oil reserves rising by 2030 by 80-100 billion barrels (depending on the progress in oil extractability) and those of natural gas rising by 16 trillion cubic metres.³⁸

The new oil reserves will come from these three basins: West Siberia, Timano-Pechora (northern part of European Russia), and Leno-Tunguzskiy basin in Eastern Siberia. Eastern Siberia and the Far East are expected to account for an increase of over 20 billion barrels. The main gas deposits to be developed are on Yamal peninsula and the Arctic (Barents, Kara and Pechora seas) shelf. The focus is on developing hydrocarbon resources in the eastern parts of Russia (Eastern Siberia and the Far East) and the Arctic shelf, which are supposed to make up for the decline in production from traditional deposits, particularly in the period after 2015. This would require a creation of appropriate production, transport and social infrastructure in these under-developed and geographically remote regions.³⁹ The Strategy estimates total required investments to be some \$2.4-2.8 trillion over the period until 2030 in the prices of 2007.⁴⁰

So far China has been cautious about expanding her investments in Russia. In January 2010, the director of the Institute of the Far East (IFE) of the Russian Academy of Sciences, Mikhail Titorenko noted that the development of Russo-Chinese investment cooperation had been weak.⁴¹ He also drew attention to the fact that even though a large number of agreements had been concluded between China and the Russian Federation in the post-Soviet era, the results so far had been modest.⁴²

In an article in the May 2010 issue of *Zhurnal Kitay i Rossiya* published by the Irkutsk oblast government, Gao Xiyun, minister-counsellor for trade and economic issues at the Chinese Embassy in Moscow commented approvingly on a comment made by Dmitry Medvedev at the Brookings Institute in Washington in April 2010, when he commented that "in order to raise the level of foreign investments in the Russian economy, Russia must improve the work

³⁶ 'Russia, China seek to tap cooperative potential,' *Peoples' Daily Online*, 7 September 2010 <http://english.peopledaily.com.cn/90001/90776/90883/7131851.html>

³⁷ ITAR-TASS 6 September 2010.

³⁸ Astrov *op cit*, p.8.

³⁹ For an overview of the Russian energy sector, see Vasily Astrov, *op cit*.

⁴⁰ Astrov *op cit*, p.8 Astrov cites other lower estimates: e.g. the World Bank (2010) estimates the required investments at \$ 1.15 trillion, of which \$920 billion is accounted for by the oil sector, including refining, and \$230 billion by the gas sector. World Bank (2010), 'Lights out? The outlook for energy in Eastern Europe and the former Soviet Union', Washington DC. He also cites a 2007 study by A. Nekrasov and Yu. Sinyak assess the overall investment needs at no more than USD 950 billion, including up to USD 570 billion for oil and USD 385 billion for gas (at 2000 prices). A. Nekrasov and Yu. Sinyak (2007), 'Russia's fuel and energy complex: development prospects for the period to 2030', *Studies on Russian economic development*, Vol. 18, No. 4, pp. 355-377.

⁴¹ M. Titorenko, 'O roli i znachenii otnoshenii' mezhdru RF i KNR v kontekste osnovnykh osobennostei' sovremennoi' mezhdunarodnoi' obstanovki', *Problemy Dal'nego Vostoka*, January 2010, p.11

⁴² Titorenko *op cit*, p.8.

of the courts and solve the problem of corruption.”⁴³ At the same time Russia also desires to expand her energy exports to other Asia-Pacific states such as Japan and South Korea in order to avoid the possibility of dependence on China as a customer. Vladimir Putin appeared in the middle of the noughties to prefer Japan as an energy partner.⁴⁴ In February 2007, Industry and Energy Minister Viktor Khristenko proposed cooperating more closely with Japan in the oil sector, and in March 2008 a Japanese government agency concluded a cooperation framework agreement with Rosneft with an eye to developing oil fields in eastern Siberia.⁴⁵ However Russo-Japanese energy cooperation has so far been limited.

Chinese Energy Strategy

China became a net importer of oil in 1993, but it was in the first decade of the 21st century that she became a voracious consumer of energy.⁴⁶ China’s energy demand almost doubled in the period 2001-2007, and this accounted for 50 per cent of the growth in world energy demand. China is projected to replace the USA as the world’s largest energy consumer within the next ten years. China will also become increasingly dependent on imported energy. Between 2001 and 2007, China’s dependence on imported energy grew from 6 per cent to 11 per cent. The IEA projects that by 2030, China’s oil imports will supply 75 per cent of total oil consumption. The IEA believes that China will burn 16.5 million barrels per day by 2030, after buying 13.1 million barrels abroad.⁴⁷

The IEA also projects that China will become increasingly dependent on imported natural gas. It projects that imports of natural gas will grow from 1 billion cubic metres in 2006 to 106 bcm in 2030. This signifies an increase in dependence on natural gas imports from about 2-3 per cent to 50 per cent.

⁴³Gao Xiyun, minister-counsellor for trade and economic issues at the Chinese Embassy in Moscow, ‘Trade and cooperation between China and Russia: transition to a new level’, *Zhurnal Kitay i Rossiya*, May 2010 <http://pribaiikal.ru/rus-china-item/article/4180.html>

⁴⁴ See Indra Øverland and Kyrre Elvenes Braekhus, in Jeronim Perovic, Robert W. Orttung, Andreas Wenger eds *op cit*, p.207.

⁴⁵ 27 February 2007, 20 March 2008. For details of Russo-Japanese energy cooperation, see Svetlana Vassiliouk, Japanese-Russian Energy Cooperation: Problems and Prospects, The Institute of Energy Economics Japan, November 2008.

http://eneken.ieej.or.jp/en/report_detail.php?article_info_id=2461; Elena Shadrina, Japan’s Energy Relations with Russia and Kazakhstan, *Shingetsu Electronic Journal of Japanese-Islamic Relations*, Volume 5, March 2009. <http://www.shingetsuinstitute.com/Shadrina%201F.pdf>. For details of Russia energy relationship with South Korea, see Se Hyun Ahn, Framing Energy Security Between Russia and South Korea: Progress, Problems, and Prospects, *Asian Survey* Volume 50, May/June 2010

⁴⁶ See Erica S. Downs, ‘China’s Energy Rise’, in Brantly Womack ed. *op cit*, pp.171-200 on which much of this section is based. See also her chapter ‘Sino-Russian Energy Relations: An Uncertain Courtship’, in James Bellacqua ed., *The future of the China-Russia Relations*, Kentucky, University of Kentucky Press, 2010

http://www.brookings.edu/papers/2010/0823_china_russia_energy_downs.aspx and Erica Downs, Brookings Foreign Policy Studies Energy Security Series: China, Brookings Institution December 2006 <http://www.brookings.edu/reports/2006/12china.aspx>. See also Daniel H. Rosen and Trevor Houser, China Energy, A Guide for the Perplexed, China Balance Sheet (a Joint Project by the Center for Strategic and International Studies and the Peterson Institute for International Economics, May 2007 <http://www.iie.com/publications/papers/rosen0507.pdf>

⁴⁷ Malcolm Shealy, ‘Chinese Oil Demand: Steep Incline Ahead’, *Alacritas Inc.*, 7 April 2008 http://www.eia.doe.gov/conf_pdfs/Monday/shealy.pdf. To put this in perspective, it should be noted that Saudi Arabia currently produces about 11million bbl/d.. It should be noted that China is currently stockpiling oil. See Ross McCracken, ‘Stockpiling or Consuming: China’s Current Oil Demand’, International Association for Energy Economics (IAEE) Energy Forum, 1st Quarter 2010, <http://www.iaee.org/en/publications/fullnewsletter.aspx?id=13>

Security of oil supply has been China's main concern. Beijing is heavily dependent on the Middle East for oil, and on the use of Sea Lines of Communication (SLOC) to import oil. 80 per cent of China's oil imports pass through the Straits of Malacca. Only nine per cent of crude oil imported to China is carried on Chinese ships, and China is currently dependent on the US Navy to keep sea lanes secure.⁴⁸ China is seeking to expand her own naval power in order to enhance her own capability to protect SLOCs.⁴⁹

China has therefore sought to reduce her dependence on the Middle East by diversifying sources of oil supply. Hence her interest in importing oil from Russia and Kazakhstan. China intends to obtain up to 20 per cent of her energy requirements from Russia.⁵⁰ China also pursuing an oil pipeline project with Kazakhstan that would enable her to import 400,000 bbl/d from western Kazakhstan.

In addition to importing energy from the former Soviet Union, Chinese National Oil Companies (NOCs) have been actively seeking to obtain production assets abroad. In 2007, Chinese NOCs produced a combined total of 780,000 bbl/d of liquids abroad. This constitutes about 19 per cent of China's oil imports. Most Chinese NOC production is concentrated in Kazakhstan and Sudan. These two countries accounted for 59 per cent of Chinese NOC output in 2007. NOCs have also acquired assets in other parts of the Middle East and Africa, Latin America and Canada. The three Chinese NOCs (CNPC, Sinopec and CNOOC) accounted for nearly 20% of all global deal values in the first quarter of 2010.⁵¹

China is also interested in importing gas from Kazakhstan, Uzbekistan and Turkmenistan. In 2007 China and Turkmenistan signed an agreement to construct a pipeline that will run from Turkmenistan via Uzbekistan and Kazakhstan to China. It will initially move 10 bcm annually, increasing in stages to 30 bcm, and potentially could move 60 bcm.⁵² The pipeline was completed in 2009.

⁴⁸ Indra Øverland and Kyrre Elvenes Braekhus in Jeronim Perovic, Robert W. Orttung, Andreas Wenger eds, *op cit* p.209.

⁴⁹ See Christina Y. Lin, 'Militarisation of China's Energy Security Policy – Defence Cooperation and WMD Proliferation Along its String of Pearls in the Indian Ocean', Institut für Strategie- Politik- Sicherheits- und Wirtschaftsberatung (ISPSW) June 2008

<http://www.isn.ethz.ch/isn/layout/set/print/content/view/full/100?id=56390> . See also Christopher J. Pehrson, String of Pearls: meeting the challenge of China's rising power across the Asian littoral, Strategic Studies Institute, US Army War College July 2006.

<http://www.strategicstudiesinstitute.army.mil/pdf/files/pub721.pdf> For an opposing view, see Ryan Clarke, Chinese Energy Security: The Myth of the PLAN's Frontline Status, LeTort Paper, Strategic Studies Institute, US Army War College, August 2010

<http://www.strategicstudiesinstitute.army.mil/Pubs/display.cfm?pubid=1012> . See also Mamdouh G. Salameh , China's Global Oil Diplomacy: Benign or Hostile?, IAEE, Energy Forum, 1st Quarter 2010, <http://www.iaee.org/en/publications/fullnewsletter.aspx?id=13>

⁵⁰ Guillaume Mascotto, 'Demystifying Russia's Energy Strategy toward China: Strategic Manipulation or Unwitting Vulnerability'? Cahier de Recherche - CEIM (Centre d'études sur l'intégration et la mondialisation Institut d'études internationales de Montréal Université du Québec à Montréal) April 2010. p.5. http://www.ieim.uqam.ca/IMG/pdf/MascottoG_Russia2010.pdf

⁵¹ For a study of the overseas activities of Chinese NOCs, see [China's overseas investments in oil and gas production](#), 16 October 2006. A Eurasia Group Report prepared for the US-China Economic and Security Review Commission http://www.uscc.gov/researchpapers/2006/oil_gas.pdf

see also Xiaojie Xu, Chinese NOC's Overseas Strategies: Background, Comparison and Remarks, The James A. Baker III Institute for Public Policy Rice University March 2007

http://www.rice.edu/energy/publications/docs/NOCs/Papers/NOC_ChineseNOCs_Xu.pdf ; Marin Katasa, 'China Is Winning the Energy Race' , *The Market Oracle*, 5 August 2010

<http://www.marketoracle.co.uk/Article21673.html> . For analysis of their role in the Chinese political system, see Erica S. Downs, 'Business Interest Groups in Chinese Politics' in Cheng Li ed. *China's Changing Political Landscape: Prospects for Democracy*, Washington DC, Brookings, 2008, pp.121-141.

⁵² http://en.wikipedia.org/wiki/Central_Asia_%E2%80%93_China_gas_pipeline

Chinese demand for LNG is expected to increase by 2020. In 2010, China is expected to boost its LNG imports by about 65%, from 5.5 million tonnes in 2009.

Chinese shale gas reserves are estimated to be about 26 trillion cubic meters, and Beijing is now increasingly interested in US shale gas technology. In November 2009, US President Barack Obama agreed to share US shale gas technology with China.⁵³

The Chinese leadership is also determined to increase its energy efficiency and reduce energy intensity. The eleventh five year plan (2006-2010) aims to reduce energy consumption per unit of GDP by 20 per cent over the period 2005 to 2010. There has been some success. China uses 10.4 per cent less energy per unit of GDP in 2008 compared with 2005. In January 2006 it was decided to increase the share of renewable energy in primary energy consumption to 15 per cent, and in electricity generation to 20 per cent.⁵⁴

China's need for energy clearly does give Russia potential opportunities. Russian oil and gas fields are relatively near compared to the Middle East and Africa, and the export of Russian hydrocarbons to China is not dependent on SLOCs, which would thus remove a major security concern for Beijing. From the above cited comments cited Putin and Rogachev, the Russian political class realises the need for cooperation with China. The comments made by Gennady Gudkov in March 2010 (see above), can be seen as a reflection of reality. Gudkov is in effect saying that China is very powerful, and Moscow has no choice other than to deal with her. Russia can be said to need China as an energy customer if she is to diversify her customer base and create other major customers apart from Europe.

Chinese Concern Over Russia as an Energy Supplier

The lack of Chinese investment in the RFE and Siberia in both the energy and other sectors clearly concerns Moscow. The Russian leadership seems at the moment to be more worried about the lack of Chinese economic penetration into the RFE, rather than about any excessive economic presence.

This partly stems from Chinese concern over the Russian investment climate. Titorenko in his January 2010 article in *Problemy Dal'nego Vostoka* refers to a lack of mutual trust between Russian and Chinese official and business circles and argues that the business and intellectual elites of both countries are more oriented towards the West than towards each other.⁵⁵ Some regional elites suspect Chinese business of seeking to gain control of the natural resources of the RFE. The Chinese see relevant Russian decision-makers as being indecisive, unreliable and ineffective in implementing firm agreements.⁵⁶

The 2009 IMEMO study The Russia-China-USA Triangle in the Asia-Pacific Region: Factors of Uncertainty (Treugol'nik Rossiya-Kitay-SShA v ATP: faktory neopredelennosti), argues that the following factors make China cautious about developing a close economic relationship with the Russian Federation in the energy sector:

⁵³ <http://www.america.gov/st/texttrans-english/2009/November/20091117145333xjsnommis0.4233515.html&distid=ucs> . See also Yue Zhang, The Shale Gas Boom Shift to China, The Institute of Energy Economics, Japan, June 2010 <http://eneken.ieej.or.jp/data/3179.pdf>

⁵⁴ Erica S. Downs in Brantly Womack ed. *op cit.*, p.181.

⁵⁵ Titorenko pg.6.

⁵⁶ Indra Øverland and Kyrre Elvenes Braekhus, 'Chinese Perspectives on Russian oil and gas', in Jeronim Perovic, Robert W. Orttung, Andreas Wenger eds., Russian Energy Power and Foreign Relations, Implications for Conflict and Cooperation , London, Routledge, 2010, p.213

- China perceives contradictions between different political and business circles in Russia, which hinders cooperation.
- Chinese business circles often complain that it is also difficult to know whom to deal with in forming business relations in Russia.
- China is concerned about Russia's reluctance to provide state guarantees for Russo-Chinese energy cooperation.⁵⁷

The IMEMO study argues that the problem for Russia is not that of not lagging behind, or of slightly lagging behind China. The problem rather is to ensure that Russia does not end up in a marginalised international position against the background of a China which is modernizing and becoming integrated into the global economy. There is a structural risk that Russia as an energy exporter will end up on the wrong side of the barrier in relation to energy importers such as the USA, China, Japan and the EU. This would be a new dividing line which would put Russia in a strategically disadvantageous position.⁵⁸

Russia will not be able to modernize without foreign (including Chinese) investment. At the APEC summit in Singapore in November 2009, Dmitry Medvedev called for improving the legal system in order to facilitate foreign investment. He stated:

We also need to strengthen our legislation and to develop the judicial system because usually for any foreign investor there are several key things. They are, indeed, a really reliable support from the state in the broad sense of the word, but in Russia it may even have a special meaning. Second, a modern legal system should be set up, a system which would be understandable and correspond to the ideas of an international businessman. And, finally, third, [business] interests should undoubtedly be protected, that is a well-developed modern and just system of protection in courts should exist.⁵⁹

Without the creation of a firm legal base, and significant progress towards the rule of law, Moscow will not succeed in attracting foreign investment on scale that will encourage economic modernization and enable the Russian economy to be located on the right side of the barrier alongside China and the major Western industrialised powers.

Given that two-thirds of the territory of the Russian Federation lies in Asia, the economic development of this resource-rich region will be crucial. The region's economic integration into the Asia Pacific region is also of key importance both for the future of the RFE and of the Russian Federation as a whole.⁶⁰ Medvedev obviously recognises this, as he stated at the APEC summit in Singapore in November 2009 that "the development of the Far East and East Siberia should be the highest priority of the state's development for us".⁶¹

Moscow faces a paradox in that the failure to develop the RFE will undermine the prospects for Russia's survival as a major power. At the same time the successful development of the RFE and its integration into the Asia-Pacific region may undermine Moscow's control over the region. Viktor Larin of the IFE argues that the fear of a loss of control and the possible emergence of Chinese (and other powers') influence over the RFE explains the lack of a clearly formulated policy by Moscow towards East Asia and the Pacific region.⁶²

⁵⁷ Treugol'nik Rossiya-Kitay-SShA v ATP: faktory neopredelennosti, Moscow IMEMO RAN, 2009, pg.50. <http://www.imemo.ru/ru/publ/2009/09021.pdf>

⁵⁸ Treugolnik, p.55-56.

⁵⁹ Zvezda TV, 16 November 2009.

⁶⁰ This was recognised by the Putin leadership. See Vladimir Putin's speech in the capital of Amur oblast, Blagoveshchensk, on 21 July 2000. This is discussed in Mark A Smith, *The RFE: Drift From The Centre*, Conflict Studies Research Centre, E112, September 2003.

⁶¹ ITAR-TASS, 16 November 2009.

⁶² Treugol'nik, p.58-59.

Vasily Mikheev of IMEMO argues that it is important to realise that contemporary China does not pose a threat to Russian statehood, and therefore it is not necessary for Moscow to take extraordinary measures in her policy towards Beijing. He also argues that it is not necessary for Moscow to impose restrictions on Chinese business.⁶³ He is of the opinion that the Russian Federation needs to correct its policy towards China and develop a grand long-term strategy towards Asia.

Mikheev presents short, medium and long-term visions for Russo-Chinese relations:

SHORT TERM

- A full-scale and not selective modernization of the transport, customs and banking infrastructures on the basis of the bilateral cooperation of the two countries.

MEDIUM TERM

- The construction of a full-scale bilateral energy dialogue which would permit the current competition between Russia and China to become a regional and then global energy partnership.
- The utilization of the factor of China's financial liberalization in correspondence with the WTO demands to secure the entry of Russian financial institutions into the Chinese market.
- The attraction of Chinese capital to develop Russian infrastructure, manufacturing industries and high technologies.

LONG TERM

- A new vision of Russia and China as constituent parts of an integrating Asia-Pacific economy.

Mikheev's plan for A Great Asian Strategy simply advocates Russo-Chinese partnership as part of Russia's interaction with the Asia-Pacific region and development of Siberia and the RFE.⁶⁴

These prescriptions are generalised and amount to little more than statements of the obvious. As already stated, Chinese companies will be reluctant to invest in the RFE unless the investment climate improves. Moscow's unwillingness and/or inability to create at present a welcoming investment climate will prevent Russia from fully benefitting from the economic development of the Asia-Pacific region.

It is also unlikely that competition between Russia and China for energy resources in Central Asia and elsewhere can be replaced by full-fledged partnership. China's first transnational oil pipeline deal was in fact signed with Kazakhstan in May 2006.⁶⁵ China was probably prompted to do this because of concern that Moscow was more interested at that time in

⁶³ *Ibid.*, p.53.

⁶⁴ *Ibid.*, p.56.

⁶⁵ This pipeline connects Atasu in northern Kazakhstan with Alashankou on the Chinese border in Xinjiang and carries 200,000 bbl/d. The pipeline was developed by the Sino-Kazakh Pipeline Company, a joint venture between CNPC and Kazakhstan's KazMunaiGaz (KMG). The pipeline's third leg from Kenkiyak to Atasu and an expansion of the entire pipeline, doubling capacity to 400,000 bbl/d, are to be completed in 2011 by CNPC. See US Department of Energy, Energy Information Agency Country Analysis Brief for China July 2009 <http://www.eia.doe.gov/cabs/China/Background.html>

developing the ESPO with Japan rather than China in mind as a customer. Beijing's development of gas deals with Central Asian states has already been noted.

China will not permit herself to become excessively dependent on Russian energy supplies, and in addition to diversifying sources of supply, Beijing is also determined to increase energy efficiency. Furthermore, Russia will develop an energy relationship with Japan, in order to signal to China that she is not Moscow's only potential Asian customer. Russia's interest in Tokyo (and Seoul) will convince Beijing of the merits of caution in dealing with Moscow as an energy partner.

Therefore, although there are logical reasons for Russia and China to develop a closer energy relationship, progress is likely to be limited.⁶⁶ Russia will continue to have to look westward to Europe as her main customer, and at the same time have to contend with the EU's determination to reduce its dependency on Russian energy supplies. Energy has been the main (if not the sole) basis for Russian great power status since the breakup of the USSR in 1991, and Moscow may find it a challenge to develop Russian energy resources in a way that will maintain her claims to *derzhavnost'* over the next two decades.

⁶⁶ However, it should be noted that in 2010 the Institute of Russian, East European and Central Asian Studies affiliated to the Chinese Academy of Social Sciences issued a "Report on Development of Shanghai Cooperation Organization (2010)", which took a bullish view of Russo-Chinese energy cooperation. 'Energy cooperation between China, Russia promising: report,' Peoples' Daily Online, 7 July 2010 <http://english.peopledaily.com.cn/90001/90776/90883/7055258.html>

Disclaimer

The views expressed in this paper are entirely and solely those of the author and do not necessarily reflect official thinking and policy either of Her Majesty's Government or of the Ministry of Defence.

ISBN 978-1-905962-91-4

Published By:

Defence Academy of the
United Kingdom

Defence Academy of the UK
R013 Greenhill House
Shrivenham
SN6 8LA
England

Telephone: (44) 1793 785534
Fax: (44) 1793 785953
Email: Publications.hq@da.mod.uk
<http://www.da.mod.uk/r-and-a-b>

ISBN 978-1-905962-91-4