



Of pipelines and the future

Posted by [Heading Out](#) on September 19, 2008 - 10:10am

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Tags: [azerbaijan](#), [china](#), [gazprom](#), [georgia](#), [natural gas](#), [russia](#), [turkmenistan](#), [ukraine](#) [[list all tags](#)]

Gail's [recent post](#) on the fragility of the US distribution system and the shortages that will be imposed by refinery outages, is a reminder of our dependence on pipelines for supply. The dependence is not just in the US, though the debate over the reality of a new gas pipeline from Alaska to the lower 48 rumbles along as a part of the election debate.

Most of Europe also depends on pipelines, particularly natural gas ones, and it is because of that that I am going to take a somewhat nervous stance and disagree with a recent article by [Jerome](#). Some considerable time ago we swapped comments about the likelihood of different pipelines being laid to exploit the natural gas in Turkmenistan, and so from that point, this post is an admission that his opinion at the time (that many of these pipes wouldn't happen) was correct. However part of the reason for this is the less than benevolent role that I see Russia is playing, and this is my disagreement with him.

My concern is emphasized by the difference in objectives of two recent trips around the periphery of Russia. First there was the trip by the Russian President, who, with Gazprom CEO Alexei Miller, [toured oil and gas supplying countries](#) such as Turkmenistan, Azerbaijan and Kazakhstan in July. Out of that came both an agreement for Russia to [buy Turkmen gas](#) but also for Gazprom to invest in the [Turkmen gas infrastructure](#). (Quotes under fold)

Moscow's base purchasing price for Turkmen gas in 2009 is projected in the range of \$340 to \$350 per 1,000 cubic meters at the Turkmen border. Gazprom had first made this offer in March 2008 (see EDM, March 17), which would more than double the existing purchase price. Gazprom has already raised the purchase price from \$130 per 1,000 cubic meters in the first six months of 2008 to \$150 in the second half of this year. Moscow's price offer for 2009 is supposed to raise Turkmenistan's earnings closer to the European netback level (sale price minus transportation costs).

The second agreement stipulates that Gazprom will finance and build gas transportation facilities and develop gas fields in Turkmenistan. Experts have estimated that Gazprom will finance Turkmen projects costing \$4-6 billion. Gazprom chief Alexei Miller said, "We have reached agreement regarding Gazprom financing and building the new main gas pipelines from the east of the country, developing gas fields and boosting the capacity of

the Turkmen sector of the Caspian gas pipeline to 30 billion cubic meters."

Which is interesting, given that the [Chinese](#) have, over the last year, been building a pipeline to carry gas from Eastern Turkmenistan to China.

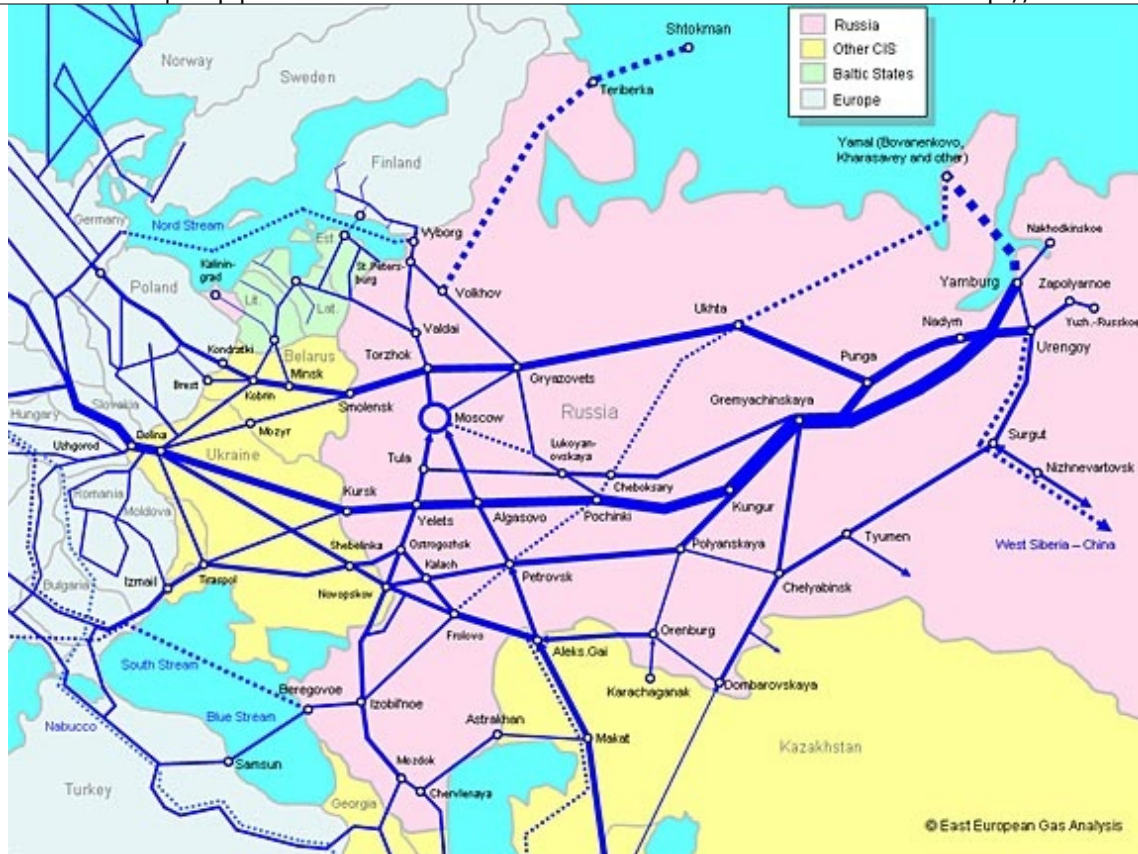
The pipeline – China calls it Central Asia Gas Pipeline – will run some 7000 kilometers. It will have two branches, one going through Kazakhstan and the other through Uzbekistan.

Bagtyarlyk territory was leased to China in July this year. It contains some fields that are already productive such as Samandep and Altyn Asyr. These two fields, after reconstruction, will provide 13 billion cubic meters per annum for the pipe. The remaining 17 billion cubic meters will come from development of new fields in the contract territory.

In addition to building the pipeline, the CNPC will provide financing and technical know-how for the gas processing and purification facilities, pumping and compression stations and boosters.

TurkmenGaz and CNPC have already signed gas sale-purchase agreement but the price has not been disclosed. Some reliable sources told that the price would be above US \$ 100 per 1000 cubic meters.

The likelihood of any [additional pipelines](#) being undertaken, such as that to India or feed to the Nabucco pipeline becomes even less likely given the management control of the gas infrastructure that the deals with China and Russia have delivered. Current and projected pipelines are shown below in a map that I borrowed from [East European Gas Analysis](#) where a higher quality version, and similar maps can be found.



from East European Gas Analysis

Optimism does, however, remain in the EU, particularly following [a recent meeting in Slovakia](#) of the Presidents of Poland, the Czech Republic, Slovakia and Hungary. But these players may be too late to the table.

Contrast that with Vice President Chaney's [recent tour](#) of Azerbaijan, Georgia and Ukraine, with his message of "keep a stiff upper lip, chaps," as though that will have much realistic impact. And this is where I disagree with Jerome, in that I rather suspect that the same sort of "infrastructure failures" that have led to Russia denying oil to places such as [Lithuania](#).

The Druzhba-1 pipeline, which also feeds other facilities in the Baltic region, was shut down in July last year (2006) after a section of the Soviet-era duct ruptured in western Russia.

The halt in oil supplies came just weeks after Polish oil group PKN Orlen sealed a deal with Russian oil group Yukos to buy the Mazeikiu complex, apparently to the annoyance of Moscow which wanted the Baltic oil facility to be sold to a Russian company.

Not to mention gas supplies to [Georgia](#) (from 2006).

Explosions in southern Russia early Sunday severed the country's natural gas pipelines to Georgia, swiftly plunging Russia's neighbor into heat and electricity shortages and causing a sharp diplomatic flare-up between the two nations.

Two more explosions hours later severed one of Russia's main electricity cables to Georgia, increasing the electricity shortage even as the gas supply in Georgia dwindled.

Nor should we forget the intermittent arguments with Ukraine. (Not that they don't have enough [troubles of their own](#) with their oil and gas company on the verge of going under). Shortages of gas threatened [Italy](#) at the time of the last Winter Olympics, and the EU recognizes that it needs to walk a little [carefully](#).

Experts say the EU is also treading carefully on issues involving Russia, which supplies a quarter of Western Europe's natural gas. At an EU summit on the Georgian crisis earlier this month, European leaders refrained from considering tough measures such as sanctions against Moscow for not fully withdrawing from Georgian territory.

This "fingers around the neck" position was a point that Vice President Chaney made [in Italy](#) before his return to the US. Unfortunately, in pointing out the problem he did not admit that there is really not a lot that he can do about the situation. Nor, alas, will he likely have much impact on current [Gazprom moves into Africa](#).

Gazprom signed a Memorandum of Understanding with Nigeria to develop gas and oil projects there. Gazprom is already in talks with Lybia where it is seeking to develop a gas pipeline to Sicily, and it opened an office in Algeria where is hoping to sign a deal with Sonatrach.(...) Obviously if Gazprom is successful in these deals it would reduce the European Union's leverage over Russia. It'd also change the balance of power between the US and Russia, since Europe would have to be more careful about provoking Russia with stupid offers of NATO membership for Georgia and Ukraine.

Thus, as the world comes to depend on a smaller number of suppliers, and the price that they are able to demand for their product, it becomes more critical that alternate sources and technologies be developed.

In that regard last Thursday Dr. Gene Whitney of the Energy section of the Congressional Research Service came to town to talk about Climate Change, Energy and Water issues. In his opening remarks he pointed out that the energy situation has become a real problem, rather than an issue, and stressed the fact that the time for implementation of new technologies is growing short. Basically he felt that the public was still unaware of the size of the problem, and of the speed with which it was approaching.

I took some of those comments and used them as a lead-in to a talk I gave at an algae workshop on Friday. There is an ongoing debate between a colleague and I as to whether it is better to justify investment in algal research as being a better way of helping solve the carbon dioxide problem, or as a source for bio-diesel. Encouraged by Dr. Whitney's comments I took the energy need as my lead, but came away afterwards with the unwilling recognition that I had, at this time, probably made the wrong choice in emphasis. Given that there is some progress toward [field trials](#) of a system that will prototype that use, it is perhaps understandable. But the time we have left to develop the alternate use grows shorter, and I guess I will have to wait until "Panic" becomes a little more prevalent before I have a chance of winning that debate.



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