



Ukraine vs Russia: Tales of pipelines and dependence

Posted by [Jerome a Paris](#) on December 2, 2006 - 6:13pm in [The Oil Drum: Europe](#)

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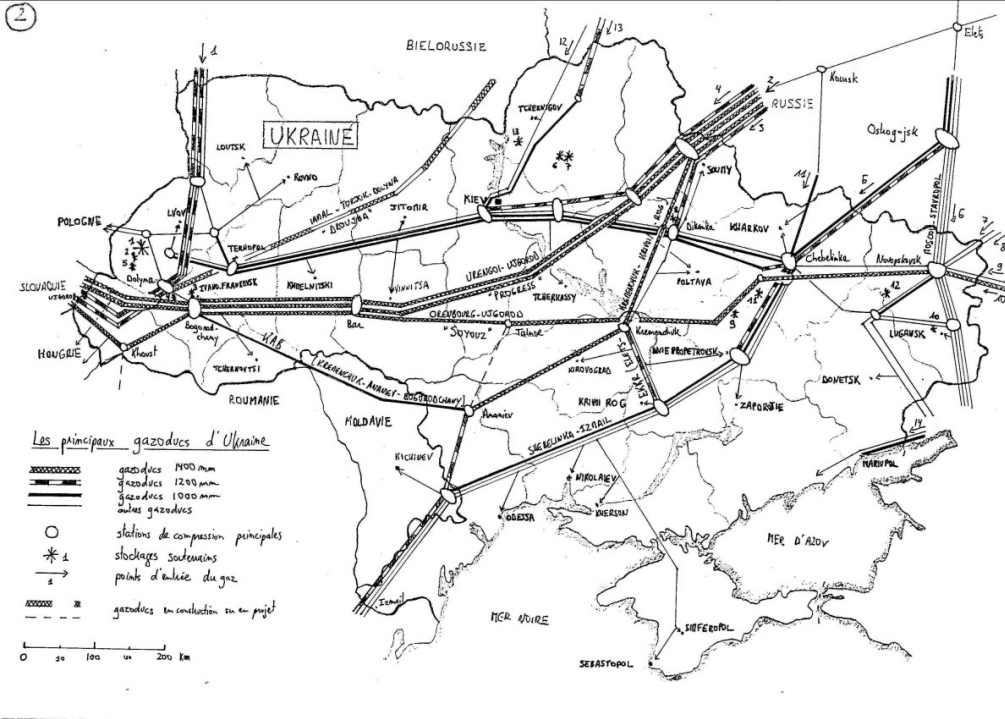
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I wrote the text below in late December 2005, i.e. just before the Russian-Ukrainian gas conflict, which had been simmering for a few weeks, blew open into the consciousness of the West

One reason I have been writing with such bluntness on the Russian-Ukrainian spat is that I was on the ground when this crisis was resolved for the first time, in 1994. I spent 6 months in the Kiev office of GDF (Gaz de France) that year. This was the way I had found to be on the ground as I wrote my PhD dissertation on "the independence of Ukraine", and it turned out to be amazingly useful as the gas negotiations were at the core of what made that independence possible. So I spent a lot of time tracking press reports in the Ukrainian, Russian and international press to try to make sense of all the announcements that were made ("we will cut gas if you don't pay." "we promise to pay next month: we will deliver 2,000 tractors." "We will raise prices." "Supplies will not be interrupted." "You are stealing our gas!" "We are a sovereign country." "We will give you loans." "We already paid 2 billion rubles." "You are jeopardizing our good relations", "You are not a serious country", etc...).

Even better, as I was in contact with the Ukrainian gas officials, I got access to their detailed technical data, and I prepared on that basis what I believe to be the correct maps of the Ukrainian network and the several quirks that explain some of the twists of the negotiations between the Russians and the Ukrainians.

Here are the maps I prepared then, with some explanations of some of the twists that underlie all negotiations on this topic between Ukrainians and Russians.



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In 1994, the GDF office had been opened fairly recently as the French gas company, like other Western buyers of Russian gas, was worried by the apparition of a new country on the path of their until-then peaceful gas imports from the Soviet Union. Its long term contracts which had been signed with the now-defunct Soviet Ministry for Foreign Trade were transferred to Gazprom, the new Russian company in charge of the sector in Russia (and effect, the successor of the Soviet Ministry for the gas industry, minus the bits in newly independent countries). The gas contract specified that the point of sale was the Czechoslovak-German border (or Czechoslovak-Austrian, depending on the destination), i.e. the former iron curtain. That bit of the contract did not change, but it now meant that Russia was selling its gas to Western Europe at a border twice or thrice removed from its own geographic boundaries, as this map (one of the best I have found) from the [Energy Information Agency brief on Ukraine](#) shows.

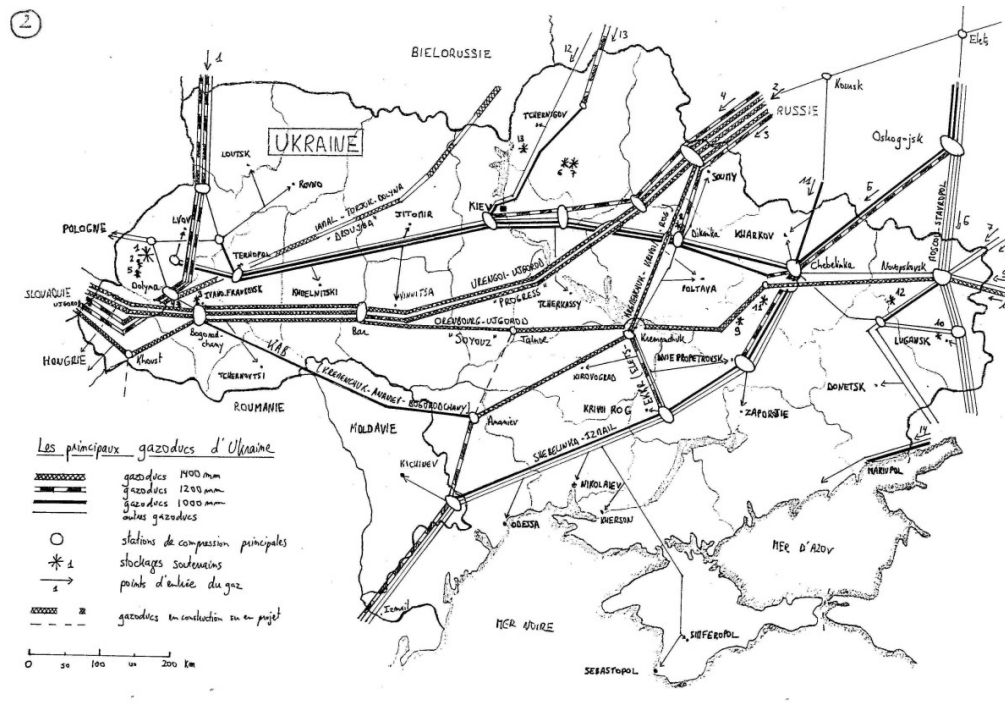


Transit issues through Czechoslovakia (and soon thereafter through Slovakia and the Czech Republic) and Hungary were resolved pretty early on and never created any dramas. Basically,

the former satellite countries got a few more years of cheap gas as per the terms of the Soviet years, and then both the transit and the gas sales moved to commercial terms mirrored on those in Western Europe. Belarus kept on receiving cheap gas for a very long time as a reward for being a mostly docile partner.

Ukraine was always going to be a special case, for a number of reasons:

- the Soviet gas industry was born in Western Ukraine in the 1920s, and the country built the infrastructure of the industry. Most of the technical universities and research centers for the gas industry were based in Ukraine, and a good chunk of the engineers and workers that developed the giant Siberian fields in the 60s were Ukrainian. The leadership of Gazprom (the Russian company) in the 90s was largely of Ukrainian origin. In a typical anecdote from 1993, the Gazprom delegation coming to Ukraine for negotiations offered to speak Ukrainian, but it was the Ukrainian officials who did not speak the language, as some of them were (Russian) Soviet bureaucrats sent by Moscow in earlier years... But there was a general feeling that Ukraine "deserved" to keep on getting "its" gas.
- Ukraine sits on most of the export pipelines going from Russia to Western Europe. The map above suggests it, but my map (which I'll discuss in more detail below) makes it abundantly clear how absolute that control is. Conversely, Ukraine, with its heavy, energy-intensive industry, was also a big consumer of gas, and that gas, now that Ukrainian production was declining, mostly came from Russia.



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- the independence of Ukraine was always the one that was least accepted by the Russians, who see Ukraine (or at least its Eastern half) as an integral part of their own country. Kiev was "their" capital a thousand years ago, and Ukraine has historically been the breadbasket of Russia, and the place where a lot of its industry was born. To them, it would be like New England becoming independent would be to the rest of the USA. So the permanent geopolitical background to any discussion between Russians and Ukrainians is this feeling that they "cannot" be independent.

What happened after the dissolution of the Soviet Union is that the physical flows kept on going more or less as before, both within countries, and between them. Exports of Russian gas to Europe kept on happening without any disturbances, and deliveries to Ukraine also continued. It is impossible to overstate the fundamental role of Gazprom in keeping the various countries of the FSU chugging along - and in keeping their populations alive. Gas was the lifeblood of everything - heating (pretty vital in these areas), electricity (ditto), and as a feedstock for a lot of industrial activity. A lot of it was used with horrible wastefulness, but altogether, it kept people alive and somewhat busy with jobs. But after a while, some in Russia started questioning why a territory that persisted in seeing itself as independent should get the same access to cheap gas as Russian citizens, and began to ask Ukraine to pay international commercial rates.

Gas continued to flow, but negotiations became heated; price increases were announced but remained unpaid, talks of delinquent debt and penalties started to fly around, and threats to cut off supplies were made. Emergency payments (or promises of payments) were made, barter deals signed, but in the end Ukraine kept on paying almost nothing for the gas it received (and in the early 90s, that gas represented about 100 bcm/y (billion cubic meters), i.e. more than it exported to Europe, including former Warsaw pact members). On 3 occasions (once in 1992, and twice in 1993), Russia cut off deliveries to Ukraine for a couple of days. Each time, Ukraine reduced deliveries to Europe by the same amount, effectively diverting transit gas. That rang alarm bells in various countries like France, Germany and Italy, and Russia hurriedly restored deliveries. Deliveries to Europe have not been cut since then.

What Russia did (or, more precisely, what Gazprom managers did, to their personal benefit) was to slowly reduce deliveries to Ukraine, and to transfer a growing portion of gas deliveries to Ukraine from Russia to entities formally independent of Gazprom and Russia. Thus these entities could cut off their deliveries if unpaid, without being threatened of cutting exports to the West, as that was done by someone else... As I explained in [a WSJ article in November 2002](#):

Corruption in the Ukrainian gas industry meant that certain officials took advantage of Gazprom's inability to enforce payment in order to enrich themselves. As in Russia, the final consumers in Ukraine quite often paid for their gas, but the bill collector chose not to pass on these revenues to Gazprom (in Russia for political reasons, and in Ukraine thanks to control over the export routes)

Gazprom's brilliant solution was to have Russian gas delivered by someone else, a private entity not affiliated to Gazprom which could cut off supplies to Ukraine without risking retaliation like Gazprom: Itera. Itera found accomplices among Ukrainian factions able to take control of the gas distribution business, and it sold directly to such private entities and not to Kiev's state gas company.

Gas was procured by Itera from Turkmenistan to build the fiction that it was not Russian gas being delivered (a scheme made all the easier because Turkmenistan was in such a weak bargaining position, with all its pipelines going straight to Russia). The revenues collected in Ukraine from distribution of non-Gazprom gas -- whether in the form of money, goods or ownership of local production assets -- were shared between the new Ukrainians, Itera and its partners in Russia and Turkmenistan.

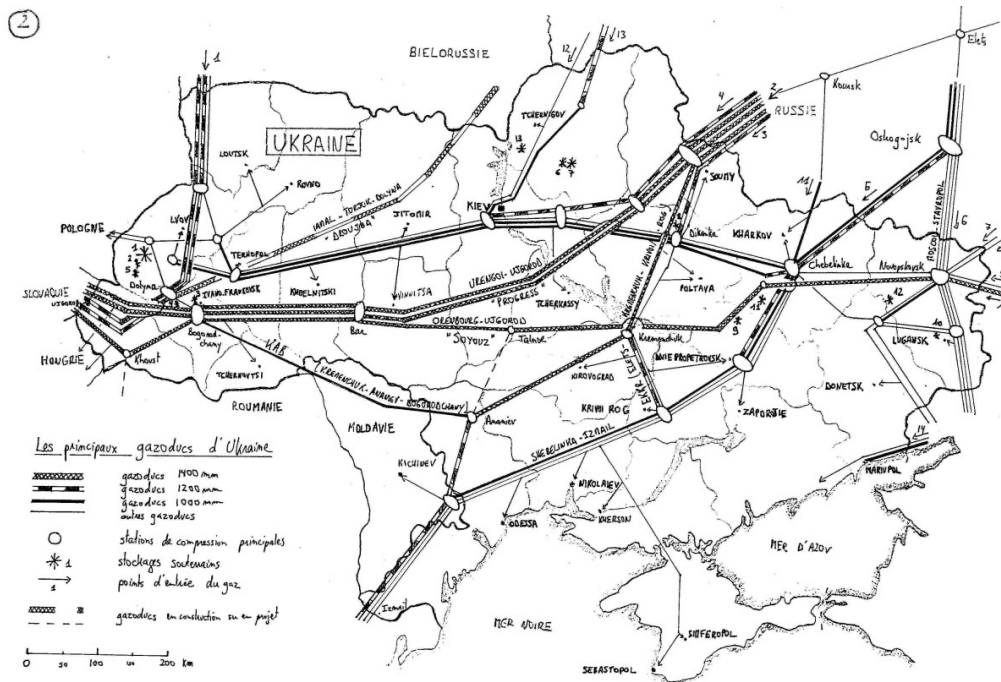
The fact that Itera, and Itera alone, was able to ship large volumes of gas through Gazprom's pipeline network between Central Asia and Ukraine strongly suggested to observers that it had close relations with Gazprom's top management, although this has always been denied by both Gazprom and Itera and never has been conclusively proven

by outsiders. In any case, such a sort of arrangement seemed to make sense: It reduced Gazprom's deliveries to Ukraine and extracted some revenue for Gazprom from that country (whatever was paid by Itera for gas transport which would have taken place anyway) and it was a perfect opportunity for well-connected individuals to benefit. This led to massive corruption and nasty political battles inside Ukraine, to take part in this juicy business, with the population, as usual, the main victim.

Meanwhile, as Itera officials stepped in with its deliveries, Gazprom's deliveries were quickly reduced to a volume of 25-30 billion cubic meters per year, which is the volume where Gazprom loses no money in Ukraine, because the value of that gas roughly corresponds to a reasonable transit tariff payable to Ukraine for all the volumes exported to Europe through Ukraine, which is some 120 bcm a year. Ukrainians still do not pay for that gas, but they do not incur new debts (the \$1.4 billion debt figure quoted all the time is essentially the debt incurred in 1992-93 which is rescheduled every other year.) Gazprom does not get cash but gets value for its gas.

My take on today's shnanigans between Russia and Ukraine is that there have been changes amongst the Ukrainian oligarchs following the change in government there last year, and new partners for this juicy trade need to be identified amongst the new Ukrainians in power and their reliability tested. The public noise hides very real local conflicts which are, of course, never talked about. I don't read regularly the Ukrainian press these days, so I am not in a position to give more details here.

But what I'd like to do is to point out a few quirks of history visible on the map which can better explain the current spat.



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- if you look at the right of the map, you see that the Moscow-Stavropol pipelines go through Ukraine. That means that not only Russia's gas exports, but also *all the deliveries to the*

southern parts of its territory depend on Ukrainian pipelines (and more importantly, of a compression and control station, in Novoposkovsk). One of the oft-ignored aspects of the Blue Stream pipeline (the underwater pipeline linking Russia to Turkey under the Black Sea, and which allowed Russia to "win the race" to supply Turkey with gas, against competing projects from Azerbaijan, Turkmenistan (supported by the USA) or Iran) is that it also included a purely domestic aspect, i.e. new capacity allowing deliveries to (parts of) southern Russia without going through Ukraine.

□

(click on map for more pictures);

- if you look at the little stars on the map, they represent storage facilities. Ukraine holds most of the storage capacity of the Soviet Union, and most of that is in the 3 westernmost "stars". Storage capacity is important in the gas business, as demand is seasonal (there is more in winter for heating) and can almost triple in Europe between summer and winter. If you can pre-position your gas near the markets when transport capacity becomes strained, you can extract a lot more value from that seasonality. The storage facilities near the Hungarian and Slovak borders were ideal for Soviet exports, but now they are in Ukrainian hands, and thus Russia must have a minimum of technical cooperation from the Ukrainians, who physically control and operate these facilities, not to lose a lot of money in their export markets. More, unavoidable leverage for the Ukrainians.
- if you look southeast now, you will see that the city of Mariupol gets its gas not from the main Ukrainian network, but from a spur coming directly from Russia (point of entry #14). That gives Russia specific leverage over that city which, as it were, is the home of Azovstal, both the biggest consumer of gas in Ukraine and one of the few clients actually able to pay for it, as it is also the biggest metals exporter of the country and thus one of its main foreign currency earners. In 1994, Gazprom hit the brilliant idea to cut off deliveries to Mariupol / Azovstal *although Azovstal had actually paid its gas!* But they had paid their gas to the central Ukrainian gas company, and not to Gazprom. Gazprom obtained the right to be paid directly by Azovstal, thus taking some revenue away from the Ukrainians and getting effectively paid for that gas. More precisely, Gazprom *managers* came up with that fiction of Turkmen gas delivered by a third party, so as to cut off completely the link to Russian exports via the main grid.
- moving on to the southwest, you see that two pipelines go through Moldova. One, the "KAB", is actually a pretty big pipeline, and it does carry a non-negligible volume to Uzhgorod on the Slovak border - it is thus needed for export purposes, and gives Moldova some leverage as well. But the even more interesting item is the fact that the other main line, going south to Romania, Bulgaria, Greece and Turkey (all important export markets for Russia, especially Turkey), also goes through Moldova - and it goes through Transdniestria, the [Russian-controlled secessionist enclave](#) which lies north of the Dniestr river:



And the main compressor station is in Tiraspol, the "capital" of Transdniestria... More wheels within wheels, as the local mafias need to be kept happy not to disrupt the gas flow -

- in an additional complication, Ukraine, until recently, had all the Soviet factories able to build pipelines with a diameter bigger than 1,000 mm - those that constitute the backbone of Gazprom's domestic and export network, and a similar monopoly on small diameter pipelines (under 350 mm). But then Russia had the monopoly on the medium sized ones, which Ukraine needs as well for the delivery network from the main lines... More horse trading.
- finally, you can note the existence of a "phantom" pipeline, the "Drujba" line, which is pretty much built, but has never been used as some of the compressor stations have the bad luck of being right in the middle of the most contaminated areas after the Chernobyl nuclear accident (Chernobyl is located north of Kiev, just a little bit west of storage point #13, and the most contaminated areas lie north and west of it). There are occasional re-airings of the idea to restart this pipeline - if the Ukrainians are "cooperative", and the West pays for it, of course...

So, all I can say about the current spat is - there is so much going on underneath that it's hard to tell what's for real in the bits that are offered to public consumption. The hard facts are:

- Russia CANNOT afford to cut off gas and be seen by Europe as an unreliable partner in the energy sphere, the only one where it is a serious player;
- Delivering gas to Ukraine costs it very little: (i) because it gets some value for it in the transit of its exports and (ii) because there is little else that it could do with the gas - it sells for even less inside Russia, and it might cost more to reduce production temporarily given the kind of supergiant fields it relies upon;
- Delivering gas to Ukraine is a source of vast profits for a few well placed people in Ukraine and within Gazprom - and obviously in their respective governments, and there is infighting underway for that cake, but certainly no intention to return the loot either to Gazprom/ the Russian State or to the Ukrainian consumers who already pay their gas at fairly high prices.

Again, I'll link to my [article in JRL in 2002](#) which describes how Gazprom worked - and still works. I consider it still valid today, despite the changes in leadership since then. The Putin cronies are just as interested in filling their pockets as the previous management, and I would even say they are worse as they have no engineering background, so they are not as good at stealing the loot *after it has actually been generated*. High gas prices hide all this today, but I'd say Gazprom is worse-run today than it used to be in the 90s.

Also, [GAZPROM'S GOT WEST EUROPEANS OVER A BARREL](#) was published in the WSJ on 8 November 2002 and is specifically about the most recent public spat between Russia and Ukraine, in late 2002. It's exactly the same thing as today.



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