

NATURAL GAS

THE FADING OF THE CASPIAN HOPE AND THE (RE)EMERGING RUSSIAN DOMINANCE

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In the 1990 with the then Soviet Union collapsing, the emergence of an independent Caspian region as a new source provider of Hydrocarbons to the West was in the forefront.

Significant amounts of western investment brought new important amounts of hydrocarbons to the market. The principal states thus able to supply natural gas to the west are Turkmenistan, Azerbaijan and to a much lesser extent Kazakhstan.

However the dream of increasing the inputs of natural gas from these states directly to the European Union cannot materialize. This is not because these states cannot produce gas but because the gas they will produce flows and will flow to the west principally through the piping network of Russia. The case was well proved when Kazakhstan agreed to pass the bulk of its oil through the CTC pipeline system in addition to the older networks, all through Russia. That was the litmus test that proved the capability and competence of Russian Hydrocarbon Diplomacy.

Western companies still produce oil and prosper in Kazakhstan but they can sell the majority of it through the piping (and goodwill) of Russia.

What is valid for Oil is also valid for Gas.

It is certain therefore that any gas available or found in Kazakhstan can be exported only through the Russian networks, and it is to be remembered that in spite of a decline of 15% in its reserves Kazakhstan still holds a hefty 2,4 Trillion cubic meters.

Turkmenistan, this great source of natural gas is under the complete and total dominance of Russia and Gazprom has the quasi monopoly of purchasing Turkmen Gas. Feeble efforts for Turkmenistan to pass gas to the West directly through under-caspian pipelines or through Iran have failed and are likely to continue to fail not only because the legal status (Sea or Lake) of Caspia is unresolved or trading through Iran is hampered, but principally because of the overbearing pressure that Russia can bring to bear on this State. The writer of this has experienced the many efforts from the European Union to entice Turkmenistan to consider supplying gas to E.U. directly have failed. Turkmenistan often refusing to participate to INOGATE or other similar initiatives even at the discussions stage.

That leaves Azerbaijan. It is little known that Azerbaijan only this year managed to approximately balance its imports of gas with its exports.

Azerbaijan up to now was dependent on Russian gas supplies for its energy requirements which were fed with a north-south pipeline originating in Russia. Azeri were taught their dependence having once their gas supply from Russia cut for a whole weekend in winter when they started advertising too much their Hydrocarbon independence and Azeris also knows that a Russian Supplied Armenia can still create havoc with their plans, and that the millions of Azeris working and living in Russia do so at Kremlin's tolerance.

It is to be expected that "pacta sunt servanda" and that most of the Azeri gas will flow from the same pipeline systems this time south to north and some quantities only will reach the West through Turkey.

To prove the point:

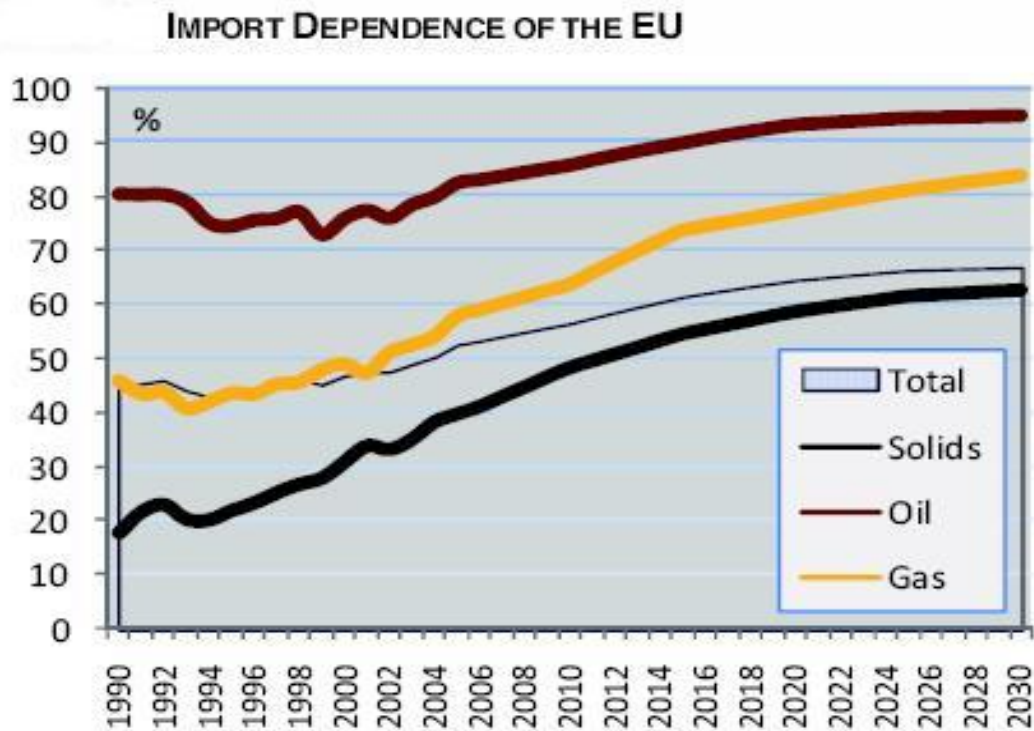
By a June 2009 deal Gazprom agreed to buy 500 million cubic meters of Azeri gas next year, which was agreed during the visit of President Medvedev in Baku. If we take under consideration that Azerbaijan imported Russian gas till 2007 the 0,5 BCM of the deal are about as much as Azerbaijan can sell until the second phase of Shah Deniz enters production in 2014. To make matters clearer President Medvedev called the agreement a "milestone" for future cooperation, President Aliyev said that the Agreement "turns the page" in relations with Russia and the top executive of Gasprom. Alexei Miller said that Gasprom will get priority treatment when the State Oil Co of Azerbaijan determines the buyers for the offshore field. The West goes on hoping for Nabucco!.....

It is obvious therefore that the E.U. dream of the 90's of an independent Caspian supply will not materialize and Caspian fields production in their majority will reach the West also through the Russian transport network.

What must be remembered here is that the needs of the European Union in Gas are not static but continuously increase. The increase in Gas consumption in EU-27 between 1990 and 2005 is 41% giving an average increase of 2,7% per year. The present rate of increase which is also influenced by the present economic crisis is approximately 1% per year but higher rates are likely for reasons of emission reductions and economic considerations. For example the rate of increase of Gas in Electricity production is over 2% per annum.

Under any circumstances the needs of EU-27 in imports are foreseen to double between 275 bcm in 2005 to 535 bcm in 2030 which gives an average increase of 10,4 billion cubic meters per year, or the equivalent of a new pipeline.

All the above is best presented in the following graph.



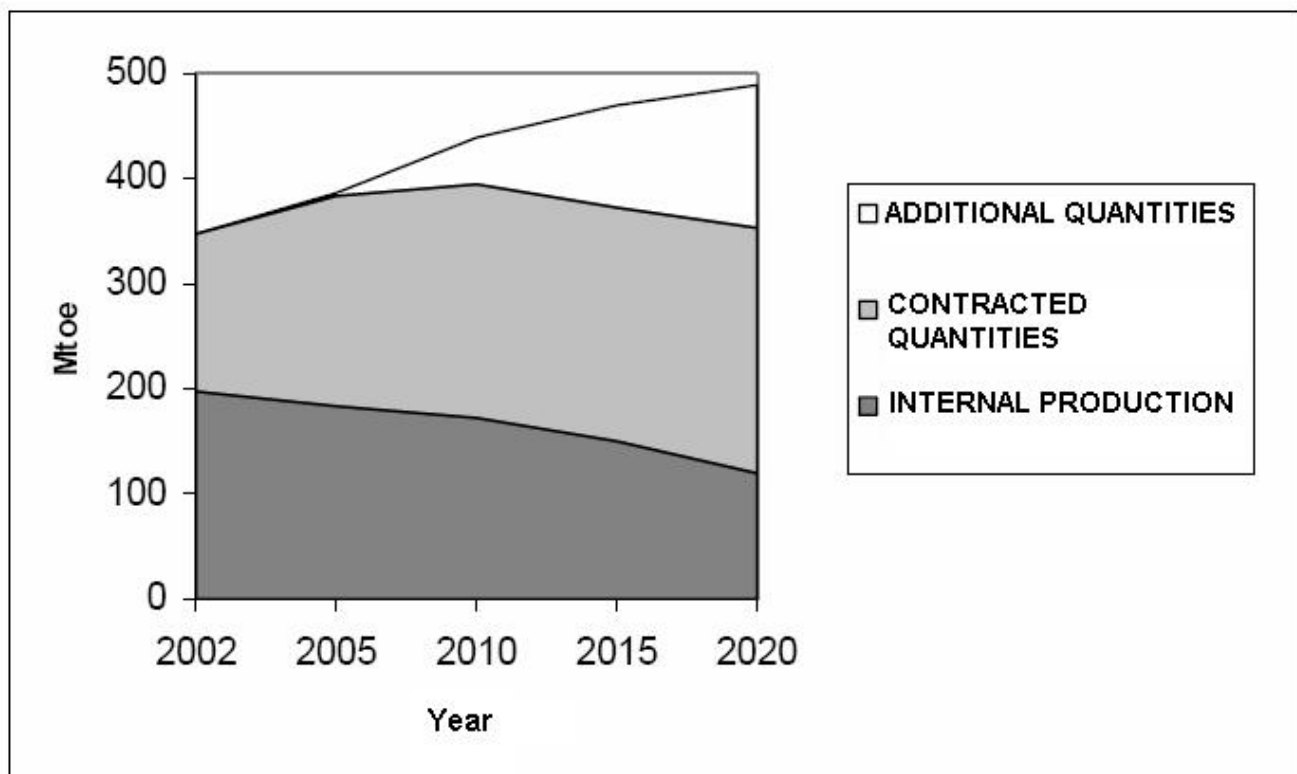
So the basic question is the following. Where is EU-27 to procure for its consumption the amounts required?

The number one supplier of Gas to Europe is Russia, providing 25% of its consumption, 15% is coming from Norway and the balance (14%) from North Africa, Nigeria and the Middle East.

It is very significant to note that we procure only 1% of Gas from the Middle East which has over 40% of the world reserves!

But the question is not who is providing EU-27 at present but who will be the provider in the future when the needs of China, India and other countries will also have increased and as a matter of fact at double the rate of increase of Europe.

In the following graph the required gas quantities in the future years are plotted and also the contracted quantities of gas are plotted. It is again to be noted the diminishing internal to EU production and most of all the gap between contracted quantities and required quantities. This gap cannot be filled by Russia, it is beyond their capability.



At present, Europe enjoys a privileged relationship with Russia which is stemming from the brave decisions taken in a negative climate and against loud opposition in the past century by the Governments of Germany and the Soviet Union for hydrocarbon pipelines crossing Ukraine and Poland which evolved in the north European Gas and oil network.

Further to the undisputed capability of Germany and other European countries to pay in solid currency and on time the North European Gas and Oil network was based on:

- The undisputed and demonstrated ability and willingness of the Soviet Union and subsequently Russia to honor all their contractual obligations of supply.
- The willingness of the transit states basically Ukraine and Poland to allow for the uninterrupted flow of oil and gas through their realms.
- The unavailability of any other equally competitive solution.

Since then, however, many things have changed. Gas has been found in many areas of the Globe and Gas is the fastest increasing energy source excluding R.S.E.

After an interval in the 90's Putin's and Medvedev's Russia reasserted its dominance on most of the states that composed the Soviet Union and certainly on the Hydrocarbon producing ones. After persuading Azerbaijan to rejoin the Club, Gazprom's vision has no frontiers as its recent agreement to develop Nigerian Oil fields proves with the recently signed agreement to form a company called NiGaz Energy Company that will invest in Gas production, transportation and infrastructure in Nigeria which has the largest Gas reserve in Africa and is the Seventh World producer with additional important untapped

reserves. It looks as if Europe can procure gas from everywhere in the World provided that the Gazprom's world Grid is the provider!

There is no doubt that Russia wishes to keep the privileged relationship with Europe and the Blue Stream and South Stream projects clearly demonstrate.

The recent South Stream decisions of Gazprom go a long way to assure worried Europeans on the strength of the Russian commitment to be a privileged Gas supplier to Europe. Gazprom CEO Alexei Miller stated that 35% of Russian Gas will be delivered through South Stream by 2015 and the capacity of this pipeline system will be upgraded to 63 bcm per annum which is impressive. This is to be linked with the Baltic underwater pipeline capacity of 55 bcm per annum which will start operating in 2011.

Together those projects will produce a hefty over 100 bcm gas lines to Europe diminishing but not eliminating the importance of Ukraine in the European Supply Lines.

So far one is to admire the activities of Gazprom which with a "lock on target" commitment systematically eliminates every other major supply player to the supply of Europe. This is fine for Gazprom but not so good for Europe.

To begin with, in the short and medium term the Ukraine issue remains. The first dispute lasted three days and the second dispute lasted three weeks. If the next dispute lasts three winter months, which is possible because Ukraine is not getting any richer or better managed, what will the damage be for Europe?

Gazprom wants EU to help fund Ukrainian gas purchases, which would require some 4 billion Euros which will solve the problem from the pocket of the European taxpayer who will have to subsidize (read grant) Ukraine for the privilege of procuring his gas from Russia. Clearly this is a one-sided deal, for an unspecified (long) period of time with an unspecified (grant) amount of European tax payers money. In our previous article in this forum we have foreseen this evolution of affairs.

The second part is even more serious. Although there is no doubt that Russia will honor all its existing contractual commitments to supply Europe, what is in doubt is its capacity to increase its production and delivery to match the increasing EU needs.

The network of production installations and pipeline system in Russia needs a lot of expensive rehabilitation that at present Gazprom is not doing. For this year they blamed it on the World crisis but the accumulated work cannot wait. The present economic crisis and the related drop in consumption together with the non-delivery of quantities blamed on the Ukrainian imbroglio saved for the present the situation and the inability of Russia to deliver greater quantities was covered. The question however remains on how will Russia fund its ambitious new projects, the new infrastructure required and the rehabilitation of the existing infrastructure in the future so that the increased European needs are covered. It looks likely that Europe will be presented with a bill for this also.

Even if the Russian supply capacity covers European needs with Gazprom locking – in gas supplies from its Caspian neighbors and even Nigeria, once Gazprom is the major player in an oligopoly consortium, that Russia works hard to organize in the pattern of OPEC, the price that Gazprom will then demand will be dreadful.

Last but not least is the increasing prosperity of Russia which will linearly if not more, require, increased quantities of Gas for its internal consumption. The Russian leadership can be victims of their own success in turning Russia into a prosperous consuming society because this society will have much more need of energy than at present. How this gap will be covered? Russian gas export potential is not inexhaustible.

To make matters clear. The needs of the EU increase by one pipeline per year. The present state of affairs cannot continue as it is, simply because EU cannot hope that either the quantities or the price would be in accordance with its future requirements.

As time passes the 10 billion Euros projected cost of Nabucco pipeline is only a dream as no clear source of Gas has appeared yet. As far as the 8bcm projected to be supplied by Azerbaijan to Turkey is concerned, if and when they will be supplied, and what will remain after Turkey has used part of it for its internal needs, can be pumped to EU through the TGI Interconnector and does not justify a new pipeline. The Nabucco project will follow the destiny of the transcaspian pipeline which will remain mostly on paper and the Baku-Ceihan Oil pipeline which manages to register a nice actual yearly loss every year for many years. The Iranian significant gas quantities are not near Turkey but in the Persian Gulf.

In fact it is in the Persian Gulf area that EU must look to establish an alternative to Russia credible and stable source of Natural Gas supply. At present only 1% of its needs are from this source that has over 40% of the world's known gas deposits. Further to that the Middle East is the fastest expanding gas producing area in the world with a regional growth of 6,4% per year during 2000-2005. Further the regions share in Global production rose in the ten year period 1996-2006 from 10,6% to 17% and goes on increasing. Qatar alone has plans to supply 30% of world's LNG needs by 2012. The South Pars Iranian field next to Qatar is among the biggest in the world, and the Iranians strongly plan to increase their gas exports.

It is more than obvious where the new pipeline network should be built.

The Persian Gulf potential as a major source to a permanent pipeline network that will commit a significant part of its production to the supply of EU is politically acceptable with a long history of reliable supply in spite of all the upheavals in the area, economically acceptable within the cost of any alternative source and technically very feasible as there is no technical issue in the whole pipeline area that has not been solved before. If it is economically acceptable and competitive for Qatar to supply Poland with 1 million tons of LNG per year starting in 2014, as agreed already, it should be even more

competitive to supply Southern EU with a pipeline network originating in the Persian Gulf. A further analysis of this would be done in a future article.

For the present EU should emerge from its torpor before supply hits the floor and prices the ceiling. The Russian chess masters are positioning their Gas pawns methodically, consistently and with an excellent understanding of all the gas parameters. Europe should do more as an entity for its security of supply in Natural Gas, than each individual state is doing for its own benefit.

The chief executive of Gazprom Alexei Miller recently said “Europe’s quest for diversification is understandable but it should not become a fetish”. He need not have worried. At present Europe’s quest is an impotent’s fantasy.