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## Oil, Gas & Energy Law Intelligence

### A Formula Approach May be the Only Option for Guaranteeing Pricing Predictability and Transparency Between Gazprom and Naftogaz of Ukraine (interview) by A. Konoplyanik

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## Andrey Konoplyanik:

# “A formula approach may be the only option for guaranteeing pricing predictability and transparency between Gazprom and Naftogaz of Ukraine”

24 November 2008 - In the winter of 2005-2006, Andrey Konoplyanik, as Deputy Secretary General of the Energy Charter Secretariat in Brussels, was involved in settling what was then the most high-profile gas dispute between Moscow and Kiev. In an interview with Economic News, he talked about the prospects for market cooperation between NAK Naftogaz of Ukraine and Gazprom.

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**QUESTION:** At Naftogaz of Ukraine they were talking about intentions of concluding new contracts with Gazprom by December 1 on the basis of the memorandum of October 2, 2008, signed by Yulia Timoshenko and Vladimir Putin. Will preliminary political agreements at the prime-ministerial level help move Ukrainian–Russian gas relations to a market basis?

**ANSWER:** These political agreements still need to be transformed into specific legal documents. The Russian-Ukrainian memorandum of cooperation in the gas sphere of October 2, 2008 contains a number of questions that need clarification. The prime ministers agreed that Russia and Ukraine would convert to market prices for gas over a three-year period. This means that for three years, import prices for gas supplied to Ukraine from Russia will be lower than market prices. But Ukraine imports from Russia gas originated both from Central Asia and Russia, and as of January 1, 2009 Russia is moving to the market price for gas it imports from the Central Asian gas exporting countries (calculated as the gas replacement value on the Western European market, netted-back to the national border of the Central Asian exporting country).

If so, if market prices (“normal market prices” as Yulia Timoshenko says) means contract prices calculated according to the so-called “European formulas” within the framework of a modified Groningen (Dutch) model of long-term gas export contracts, Russia has once again (as was the case before January 4, 2006) agreed to transfer part of its Hotelling rent from the portion of Russian gas exports to Ukraine (from this part that originates from Russia itself), but in increased amounts, guaranteeing a preferential import price for all gas (both originated from Russia and from Central Asia) imported by Ukraine.

**QUESTION:** Could you explain the Groningen model of long-term gas export contracts to readers who aren’t involved in the economic problems of developing the European gas market?

**ANSWER:** This model of a long-term gas export contract was formulated in the Netherlands in the early 1960s in connection with the discovery and start of development of the Groningen gas field, which was a major field in those days. This concept had the aim of maximizing long-term revenues from field development (resource rent) for a sovereign exporting country-the owner of the resources-in-place. One of the key characteristics of this model was the conversion of gas pricing from the “cost-plus” principle to the principle of “replacement value of energy resources competing with gas at the end-user burner-tip”.

**QUESTION:** What is the Hotelling rent you referred to?

**ANSWER:** At the earlier stages of gas market development, until the discovery of the Groningen field, the “cost-plus” principle predominated. It allowed a country that owned gas resources to extract only Ricardian rent - the difference between production costs at the given field and marginal production costs. The latter is the basis for price formation on non-renewable energy resource under “cost-plus” pricing principle.

“Replacement value” pricing principle makes it possible to extract both Ricardian rent and Hotelling rent [the latter is the difference between the “replacement value” of the competing fuels and production costs at the worst fields; both rents are named after famous economists]. As a rule, Hotelling rent, especially for gas exporters developing giant, supergiant, and unique fields (these include Russia, for example), can substantially exceed the value of Ricardian rent due to the so-called “economy of scale” effect.

The consent of Russian and Ukrainian prime ministers to a transition period to market prices means that during this period the actual price (regardless of how this is presented arithmetically or described in legal language) for gas imports from Russia to Ukraine will be at a lower level than the price calculated as the gas “replacement value” for end-users in Western Europe (where there is excessive demand for Russian gas and its replacement value is highest) netted-back to Russia-Ukraine border, which price will start being applied — according to the memorandum of October 2, 2008, — within three years. Thus, Russia has once again undertaken to ease the financial burden on Ukrainian consumers associated with the transition to “normal market prices” for gas in Ukraine by making it a gradual transition.

## **There's no free lunch**

**QUESTION:** So, to a certain extent, new Gazprom and Naftogaz of Ukraine contracts will be based on political rather than purely commercial pricing.

**ANSWER:** Yes. Any transition period from purely political pricing (which existed for gas between Russia and Ukraine prior to January 4, 2006) to purely commercial pricing (which is supposed to occur after three years) is characterized by a gradual change in the ratio of the political and commercial pricing fractions in favor of the commercial component. But the distinguishing feature of the agreements reached between Ukraine and Russia in October (which rested on agreements reached earlier between Russia and Central Asian gas exporters) is that, finally, within the framework of the entire long-distance gas chain, which makes it technically feasible to deliver gas from Central Asia and Russia to Western Europe through Ukrainian territory, a single pricing principle based on “replacement value” is in effect. Prices will now have to be calculated according to a single principle; but in the case of Ukraine, quantity discounts will be applied to them over the next three years.

I have two questions in relation to this, and I would like to have the same answers to them in Ukraine and Russia. First. Do they understand economics of gas price formation in Ukraine, including under so-called European formulas? I hope they do (although I often get the exact opposite impression; but then, few in Russia who are not involved in the gas business understand this either...). And second. Since there's no free lunch, there have never been one-way preferences. Are Ukrainians aware that the country made an agreement with Russia concerning a certain mutually acceptable range of economic benefits? Russia obviously counted on or has already received something in return. And it should be understood that this is a normal bilateral process, which should ultimately lead to something that will satisfy everyone in post-Soviet space: producers, consumers, and energy resource transmitters. The most important thing is pricing based on common, economically justified and mutually acceptable principles. This is market economics, which is what we are aiming for.

**QUESTION:** Which pricing principles do you mean?

**ANSWER:** The two mentioned above: “costs-plus” and “replacement value” principles. Export pricing can also be derived by reverse calculation (net-back method) from the price for end-users – in this case, if gas delivery points under export contracts are located between the producer and the consumer whose market determines the gas “replacement value”. In the case of gas exports from Russia to Ukraine, this will mean the gas replacement cost at the EU market minus the cost of gas transportation to this market from the Russian–Ukrainian border.

The Dutch model of the long-term gas export contract that has operated in Western Europe since 1962 is built on this principle (net-back replacement value). Its key elements are included in so-called European gas supply contracts and European pricing formulas, which Ukraine is aiming for.

Incidentally, the Soviet long-term gas export contract was a modified version of the Dutch contract; that is, it was tied to the specific conditions of the divided Europe of the time, when gas producers (exporters) and consumers (importers) could control supplies and guarantee reliability and continuity of these supplies only within the limits of their political influence. Therefore, gas delivery points in the first Soviet long-term gas export contracts were placed

on the border of what was then the CMEA (CMEA or COMECON – Council for Mutual Economic Assistance) and the EU-15. This was for deliveries to Western Europe. It was a different situation for deliveries in Eastern Europe and within the USSR.

**QUESTION:** In what way?

**ANSWER:** Before the collapse of the USSR, oil and gas were supplied to CMEA countries on the basis of subsidized export pricing, and prices were subsidized. This situation had a legal basis — Resolution 1803 of the UN General Assembly of 1962, under which an exporting country itself had the sovereign right to decide how to manage its resources. Supplies to the CMEA had a barter or quasi-barter character. The gas transport system was not designed for transit within the framework of the de facto integrated political space of the USSR and CMEA — there was no transit within the USSR, and supplies to the CMEA were not contractually separated into export and transit.

## **Objective problems of the transition period**

**QUESTION:** What happened to gas supplies after the collapse of the USSR?

**ANSWER:** A long, painful transition to market relations began. And I believe it's continuing to this day. I don't think it will end in three years either, when Russia and Ukraine will finally move to market prices — it will take some time to learn how to effectively apply the agreements reached on a common life according to new economic principles. These market relations imply: contractual separation of transit and export supplies, formulation of each country's domestic legislation separately for gas transportation and separately for transit, and cash payments.

But if export and transit are separated, you need to develop separate market transit tariff and market price methodologies for gas transit and exports with consideration of nonrenewable character of this energy resource (different methodologies result in different price and tariff levels). All countries united under the Energy Charter Treaty (at present, there are 51 countries in Europe and Asia, including all countries of the EU and the former USSR) have recognized the need for this.

We should also view gas problems in post-Soviet space as a result of the long-term consequences of the collapse of the USSR/CMEA. These are objective problems of the transition period.

**QUESTION:** How did this transition figure in gas supplies to Ukraine?

**ANSWER:** The breaking point was January 4, 2006, when a fundamental change in the arrangement occurred. Prior to this, gas export prices for Ukraine and transit tariffs were tied to one another, based on the need to cover Ukraine's gas balance with export supplies from Russia and to pay for this gas from Ukraine's proceeds from the transit of Russian gas to Europe. Therefore, both export prices and transit tariffs had an calculated, nominal character and were artificially low.

After January 4, 2006, transit and export became contractually separated; payments started being made in cash, while the export price was calculated as the average for a mixture of gas

from two sources — Russia and Central Asia — where, and this is very important, different pricing mechanisms were used.

Russian gas export pricing is done by reverse calculation (net-back method): the gas replacement value at the EU market minus the transport cost to the Russian-Ukrainian border. Whereas Central Asian gas pricing for Ukraine was formulated by direct calculation (net-forward method): the negotiated price at the national border of the Central Asian exporting country plus transportation costs to the Russian-Ukrainian border. At the same time, the Russian gas price was higher than the Central Asian price.

Combining these two streams with two different pricing mechanisms and price levels into one export supply stream from Russia to Ukraine provided Ukraine with reduced gas import prices in 2006-2009 at the expense of part of the Central Asian exporters' Hotelling rent. The pricing variety tempted the struggle for the Hotelling rent.

**QUESTION:** In your opinion, what was the reason for the acrimony of the discussions in 2006 on changes in the Ukrainian-Russian gas relations?

**ANSWER:** If you take away the politics and leave only the economic component, these talks began late. If they had started a few years earlier, say until 2004, when oil prices were still not soaring upwards, the problem wouldn't have been as acute.

**QUESTION:** Why?

**ANSWER:** The shortfall of Russia's Hotelling rent, which it considered lost profit, would have been an order of magnitude less. For example, if Russia and Ukraine had moved to market prices according to the Groningen model in 1998 (when market prices for oil, and hence for gas, were at a minimum, and when Russia made this transition, say, with the Czech Republic and Slovakia), the difference between the nominal price and the price calculated from the net-back replacement value at the Russian-Ukrainian border would have been about \$15 per thousand cubic meters. But in 2005, this difference would already have been ten times greater. On this basis, the difference in the price of the question and in the acuteness of the problems being discussed is clear.

In addition, it's still a very unfavorable time for renewing contracts: their effective date (January 1) is the peak winter demand period for gas and the middle of the Christmas and New Year's holidays in both East and West. If the effective dates of the new contracts had been changed to October 1 (as in Europe), or even better, to the beginning of summer — the period of lowest gas demand — the problem would immediately have become less acute.

## **Gazprom had a completely selfish motive**

**QUESTION:** At the time of these discussions, there was a lot of talk about contract structure. Why did RosUkrEnergo (RUE) and UkrGaz-Energo (UGE) appear?

**ANSWER:** In answering this question, I'll leave out the political, speculative, and corruption components, which predominate in discussions of the question of these structures. I'll speak only about the economic expediency of the appearance of RUE and UGE in the gas supply chain to Ukraine. I see economic expediency here, and more than that — the need for the

presence of a middleman in the parties' chosen gas supply scheme for Ukraine in 2006-2009. And the economic presence of a middleman in the gas export supply chain above all satisfied Ukraine's national interests, because it provided a means of securing reduced prices for gas supplies to the country, as opposed to market prices determined from European pricing formulas. Whether RUE's founders on the Ukrainian side satisfied the volatile Ukrainian government is another question...

How are deliveries being made until January 2009? National companies sell gas at the borders of Central Asian supplier countries to GazpromExport, which immediately resells it to RUE at the same reduced prices (calculated from the "costs-plus" formula). RUE then transports this Central Asian gas contractually to the Russian-Ukrainian border, where in addition RUE buys Russian gas from the very same GazpromExport (at high prices calculated from the net-back replacement value formula) in order to offset gas supplies to Ukraine.

The appearance of RUE was necessary in order to allow contractual mixing of this gas from different sources and get an acceptable import price for Ukraine compared with the soaring market price of gas at the time due to oil price increases. Incidentally, not one of the Energy Charter Treaty (ECT) member countries opposed this scheme when this question was being discussed in the Secretariat.

Its economic sense was to mitigate the consequences for Ukraine of the transition to so-called European pricing formulas and the European gas price by combining streams of Russian and Central Asian gas obtained from GazpromExport and supplied to Ukraine. The scheme with RUE made it possible to calculate a reduced weighted average import price of this gas for Ukraine.

**QUESTION:** So Gazprom decided to be charitable with the help of RUE?

**ANSWER:** No. As I see it, Gazprom had a completely selfish motive — not to allow price competition between Russian and Central Asian gas on the European market. To do this, it first had to lock up the supply of Central Asian gas to Ukraine. This problem was solved by bringing RUE into the supply scheme. The appearance of UGE in the supply scheme was a mechanism for avoiding the threat of Ukraine reselling cheap imported gas supplied by RUE at European prices. Therefore, second, UGE's founding documents stipulate that it will sell all of its gas at the Ukrainian market. The presence of UGE in this supply scheme is the analogue of contract provisions — so-called "destination clauses", which were incorporated in Groningen-type long-term gas export contracts from the very start of its existence (the UGE contracts prohibited from re-exporting gas from Ukraine).

The practice of re-export and monetizing Hotelling rent in an importing country was widespread, for example, in CMEA countries, especially during the period in the 1970s when world oil prices were rising, and served as the economic foundation for political consolidation of the countries around the USSR. In many respects, the economic wealth of such countries as the GDR or Hungary was built on resale of oil products to Western Europe at world prices, while the oil from which these products were manufactured was imported into these countries from the USSR at artificially low prices. The sovereign right of the country supplying nonrenewable energy resources is to determine whether it wants to continue this practice in relation to the importing country.

Still another essential feature is Gazprom's efforts to avoid transit (in the legal meaning of the term "transit") of Central Asian gas through Russian territory. In 2002-2008, while I was working in the Energy Charter Secretariat, there was active continuing discussion (it is still going on today) of a draft Energy Charter Protocol on Transit. There were different perspectives and various proposals for formulating this legally binding multilateral, document of international law. Some of debated proposals might reasonably have led to economic losses for Russia (for example, the question of correlation between tariffs for transit and for domestic transportation, etc.). Until the discussion has ended and all parties to the ECT have worked out a mutually acceptable text for this legally binding, document of international law, Russia obviously doesn't want to allow through its territory "gas transit" (in legal meaning of transit i.e., where a contracted gas stream crosses at least two borders) for gas produced in another country. Hence the appearance of RUE, which buys gas at one border (Central Asian state), transports it at least contractually (i.e., at least on paper) to another (Russia-Ukraine) border, buys gas there from another source (originated from Russia), mixes them (combines them in its accounts in order to get a reduced contracted price for a cocktail of gas originated from Central Asia and from Russia), and sells it in the same place (at Russia-Ukraine border) to UGE, which sells all this gas at the domestic Ukrainian market.

## **All premises for RUE's existence disappeared**

**QUESTION:** A memorandum calling for the removal of RUE from this scheme was signed in October. What was the reason for this compliance?

**ANSWER:** The premises for RUE's existence disappeared when gas purchases converted to "replacement value" principle within the entire post-Soviet space, when the difference between price calculation methods in post-Soviet space and the EU disappeared, when Central Asian countries announced plans to move to "European" gas prices (pricing formulas). That is, as of January 1, 2009, there will be a single methodology and it will no longer be necessary to weight different prices obtained by different calculation methods for gas streams supplied to Ukraine from Russia and originating from different sources. In my view, this is the logical, economic explanation of the reasons for RUE's withdrawal, regardless of who owns this company on the Ukrainian side.

**QUESTION:** Naftogaz of Ukraine CEO Oleg Dubina said that in calculating gas prices for 2009, Ukraine and Russia refused to use the formula approach, which implied linking the price to a basket of oil products. In his words, the governments decided that the cost of gas would be based on agreements between the companies. At the same time, "prices will be economically justified". Is it realistic to try and get an "economically justified price" in this case?

**ANSWER:** In order to be long-term, stable, and mutually advantageous, an agreement between the companies must rest on approved, economically substantiated approaches. In this case, the only option for guaranteeing pricing predictability and transparency may be the formula approach with reduction factors for the next three years. The other approaches are deceitful. The decision of one government can never be a convincing economic base for a mutually acceptable decision for both parties.

At the same time, the formula approach in no way implies that gas prices are linked only to a basket of oil products. This is an incorrect understanding (more likely an inaccurate



quotation) of the substance of the pricing formula. Oil products are actually the main components in the gas formula; but for deliveries to various countries, other energy carriers competing with gas for the end consumer are also taken into consideration (coal, primary energy, even gas exchange quotations — where gas purchases on an exchange may amount to a competition for contract suppliers, etc.). So, in any case, there must be some kind of definitive basis for economically justified linking of prices. Either company has enough highly qualified economists and at least as many qualified negotiators to do this.

**QUESTION:** What might be Ukraine's reasonable reaction to increased gas prices?

**ANSWER:** What many have been talking about for a long time — more efficient use of energy resources at all levels of the energy value chain and at all levels of Ukraine's energy balance. The country has colossal reserves for improving its energy efficiency (I think it's common knowledge that Ukraine's GDP is one of the world's most energy-intensive). From economic theory and practice it follows that the smaller the gap between domestic demand and supply, the lower the "replacement value" of the energy resources imported into the country on which the import price is based.

The second line (which, admittedly, could be regarded as a partial instance of the first) is to decrease real losses and the risk of future gas losses in Ukraine's gas transportation system (GTS) and redirect the saved gas volumes to internal consumption, with a corresponding decrease in import requirements and thus a possible import price decrease in future.

Ukraine's GTS is its key asset, both for gas producers/suppliers and consumers, owing to transit through the country. Therefore, maintaining and guaranteeing uninterrupted gas supplies through Ukraine, improving the technical level and reliability of Ukraine's GTS, and full-scale engineering modification of the system are all tasks for which the necessary financing can be secured by attracting domestic and foreign capital even during the current global financial crisis. To do this, it is necessary to provide normal project financing conditions — through shares of interested parties in the corresponding specialized company with adequate financial, managerial, and production responsibility of the parties. And there's no need to be afraid of the term "gas transportation consortium", if term is ultimately used to designate the enterprise described above.

*Conversation with Svetlana Dolinчук, 24th November 2008.*

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