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German Economic Team in Belarus

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## Gas Sector Restructuring in Belarus: Necessity and Directions

### Summary

The Belarusian economy will face two major challenges in the very near future. On the one hand, the economy will need considerable amounts of natural gas for internal consumption and for transit to third countries. Hence, it is crucial that the gas sector work safely and efficiently. On the other hand, Russia's and Belarus' intentions to join the WTO will make it unlikely that prices of future gas imports will decline from their current levels, since WTO membership will make it difficult to continue subsidizing energy – as has been the practice to-date. The current upward price pressure is likely to remain, resulting in increased costs to of gas enterprises and final consumers. Since the costs borne by most of producers are already high it will be difficult to fully cover the additional gas price increases with increased final prices. The advantage provided by the very low import prices during 2002-2003, was insufficiently used for the maintenance of existing assets and went instead into investments in social projects. Moreover, the current inefficient structure of the sector does not reward initiative or efficiency.

The expected price increases could, however, be partially offset if the Belarusian gas sector would improve its efficiency of operations. Such improvements will, however, depend on reforms and on significant amounts of investment. In order to be attractive to private investors, the gas sector will need to be corporatized and opened for competition. The situation in the gas sector would be improved by reforms that reward efficiency increases and create attractive investment opportunities for the private sector, without the need to privatize the state-owned enterprises within "Beltransgas" and "Beltopgas". Some of the major concrete steps we consider to be necessary are price reform, the implementation of "regulated competition", and full and deep restructuring and corporatization of the gas enterprises.

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## 1. Introduction

Natural gas plays a crucial role in the Belarusian economy. With the availability of Russian natural gas at comparatively low prices during recent years, the share of gas in the energy balance of Belarus has increased from 43% in 1990 to 60% in 2003. Although it is expected that the share of natural gas within the total primary energy consumption will decrease again below 50%, general gas consumption is still projected to remain at the fairly high level of around 17 bcm.<sup>1</sup>

Since Russia intends to join the WTO, it is obvious that prices for imported gas will increase, because the WTO accession rules require Russia to increase its domestic prices<sup>2</sup> and to apply an equal-price policy vis-à-vis all gas-importing countries (so that prices differ only due to differing transportation costs). Hence, with an expected modest rise of world market prices for gas during the next two decades, Belarusian gas consumers are well advised to prepare for further increases of the domestic gas prices.<sup>3</sup> Naturally, this will have serious consequences for the international competitiveness of Belarusian enterprises.

The Belarusian gas industry operates at low efficiency levels and definitely needs further investment. To improve the situation most gas enterprises need to be corporatized, an independent regulator needs to be established, and some elements of competition need to be introduced. Once these measures have been put in place, the gas industry should be able to operate on a sustainable basis and to attract private investment.

This paper is organized as follows. The second section presents the CEE experience in gas sector restructuring. The present status of the Belarusian gas sector and its problems will be discussed in the third section. The fourth section describes the current tariff setting situation within the systems of "Beltransgas" and "Beltopgas". The fifth section reviews possible approaches to gas sector reform in Belarus, and the last section contains conclusions and policy recommendations.

## 2. The relevance of enterprise restructuring and lessons from European countries

Typically, the energy sectors (gas and electricity) in Western Europe had for a long time been structured as large vertically and horizontally integrated monopolies with a significant share of state ownership. Only recently were various models implemented, designed to stimulate competition and reduce energy prices for final consumers. For example, following the adoption of the Single European Market principle in 1985, the European Commission considered the possibility of creating a single internal market for energy. The goal was to establish a set of common rules for the production, transmission and distribution of gas and electricity in order to reduce the market power of the existing local companies and to encourage competition.

On the gas market, the EU now seeks to establish basic elements of competition such as free access for all gas-supplying companies to the transmission networks at equal tariffs, the unbundling of generation, transmission and distribution activities (to avoid opportunities for cross-subsidization), and the right of consumers to choose the cheapest supplier. The main motivation behind all these efforts was the experience of the United Kingdom, where the introduction of such rules at an earlier time had led to significantly lower energy prices and higher levels of competition than in all other EU countries.

10 years ago most CEE countries faced severe problems within their state-owned gas sectors. First of all, they were largely inefficient, as state enterprises typically lack incentives and the authority to work efficiently, and to invest in long-term projects. On the contrary, most were more interested in current consumption. Secondly, for a long time most gas sector enterprises in the CEE relied on direct subsidies (e.g. government financing of many expenditures and investments) or indirect support (e.g. preferential credits, tax deferments, etc.). This created an unclear structure of incentives and led to considerable distortions on the commodity and factor markets. Thirdly, selected enterprises or groups of consumers were subsidized, either within a branch system of government subsidies, or through cross-subsidized tariffs, which did not reflect the full costs of the energy enterprises. Overall, the situation had many

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<sup>1</sup> See e.g. the draft of the Program for Social and Economic Development of Belarus until 2020.

<sup>2</sup> According to plans of the Russian Ministry of Economic Development, gas prices will increase by 23% in 2005, by 11% in 2006, and by 8% in 2007.

<sup>3</sup> The current import price level of about USD 47 per tcm still appears rather favorable.

disadvantages. For example, providing direct subsidies meant lower expenditure for social needs. Cross-subsidization of households by industry led to severe distortions of financial flows and resulted in enterprises having to pay more for energy. Moreover, the widespread practice of setting prices so as to realize only modest profits for the state-owned energy companies (for example, by undervaluing the costs of assets under inflation) amounted to huge subsidies to consumers, which were paid by the state (that is the taxpayers).

All these problems led to low competitiveness in the gas sector industries of the CEE countries and, hence, to limited investment opportunities. This situation could only be changed through reforms. Inspired by recent developments within the EU, most CEE countries decided to follow a similar reform path. Most important among these were the following measures:

- Full or partial separation of gas extraction, transportation and distribution (unbundling of accounts or creating judicially independent companies);
- Diversification of gas deliveries;
- Liberalization of the gas sector;
- Creation of independent regulatory bodies and improved pricing policies to adequately reflect the total energy costs of every enterprise in the gas system;
- Provision of direct subsidies to poor people;
- Implementation of pre-restructuring measures for enterprises before privatization;
- Partial privatization of state enterprises/monopolies, including the gas transport (transit) systems and the regional gas distribution companies in the short-term, as well as eventual full privatization (however, in most cases the national legislation allows the state to keep a controlling block of stock).

Implementation of these reforms has led to considerable results. CEE gas companies have found new foreign investors, which not only brought capital and technologies, but also new knowledge, new modes of behavior, a new mentality, transparency of functioning, improved reputation, etc. The progress and the different speeds of market gas reforms in different CEE countries are outlined in more detail in Appendix 1-2. The experiences with foreign investment in Hungary and Slovakia are briefly described in Box 1.

### **Box 1. Foreign Investors in Hungary and Slovakia**

#### *Hungary*

Hungary's integrated oil and gas company MOL has been gradually privatized since 1994 with the objective of making it into the Central and Eastern European oil and gas market leader. At present, 9.1% and 10% of MOL's shares, respectively, are held by the Austrian OMV and the Slovak Slovnaft & Slovintegra, two oil and gas companies, while 54.2% of MOL's shares are traded on the open market and 26.7% remain in state ownership, including a 'golden share' that enables the state to veto all major changes.<sup>4</sup> Further strategic partnerships are set up through shareholdings of MOL in INA, the Croatian oil and gas group (25%), and the Slovak oil company Slovnaft (70.02%), as well as a partnership agreement with TVK, a chemical company and the sole polyolefin producer in Hungary. In 2004, the Germany energy company E.on and its subsidiary Ruhrgas started to invest in Hungary's gas sector.

#### *Slovakia*

In 2002, 49% of SPP, Slovakia's former monopoly operator of gas transit and domestic supply was sold in equal portions to Ruhrgas and Gas de France for a total amount of USD 2.8 bn. Although while the remaining 51% were retained by the state, the Slovakian government committed itself not to intervene in SPP's operational activities and only to exercise control rights.

### **3. The gas sector in Belarus**

The gas sector in Belarus is dominated by two state owned concerns, managed and controlled by the Ministry of Energy: Beltopgas and Beltransgas. While Beltransgas is responsible for high pressure gas transportation within Belarus and for managing gas transit, Beltopgas deals with gas distribution and retail sales inside Belarus to final consumers through low pressure

<sup>4</sup> For further information (as of September 2003) see [www.mol.hu](http://www.mol.hu)

networks<sup>5</sup>. The Russian company "Gazprom" and some other Russian suppliers sell gas to Beltransgas, who then resells it to Beltopgas. Finally, regional distribution companies, subsidiaries of "Beltopgas", sell gas to final consumers (enterprises and households).

### 3.1. The Joint Stock Company "Beltransgas"

The JSC "Beltransgas" was partially corporatized in 2003 with the state holding 99.99% of its stock. Beltransgas delivers gas to the Beresovskaya hydroelectric power station and to "Beltopgas". It also provides gas transit services to Lithuania, Poland, Ukraine, etc. It is worth mentioning that for the last several years the volume of both transit gas and gas for internal consumption has been increasing. In addition to its main functions to transit and to transport gas, Beltransgas is responsible for the constructions of new trunk and secondary pipelines, new gas distribution stations, underground storage facilities, compressor stations, new administration facilities, and for the reconstruction and rehabilitation of existing capacities. Among the major problems facing the enterprise are depleted assets, payment delays and the need for investment.

Although Beltransgas is a relatively new and modern enterprise, most of its equipment has been in service for more than half of its normative life. Even worse, some equipment has been operated for more than 33 years. The main source of investment (about USD 60 m annually) is a special "amortization fund". However, although Beltransgas is a corporatized Joint Stock Company, its investment decisions are still largely driven by social considerations rather than by maximization of profits and thus, shareholder value. In particular, due to the state policy to increase the access of rural area to the gas network (so called 'gasification' of villages and small cities), more than 70% of all investment by "Beltransgas" is spent on unprofitable new constructions related to this goal. As a result, the enterprise can spend only 15 to 17% of its funds on reconstruction and technical upgrades. In other words, this state enterprise uses most of its profit not to increase its efficiency but to meet political objectives. At the same time, the government estimates the investment volume for renewing the capital stock, which is necessary primarily to insure transit security, as between USD 1 and 2 bn.

Information about the fee collection rate and the structure of payments for natural gas with creditors and debtors is given in table 1. One can see, that the collection rate and payments in cash are increasing. Among the reasons explaining this fact, one can point to new administrative rules<sup>6</sup>, as well as to the increasing foreign currency revenues from export: increased export brings additional revenues into the country, allowing enterprises to pay for consumed gas on time and with cash<sup>7</sup>. However, the progress is too slow and does not allow Belarus to pay old debts of previous years. It worth mentioning that by the end of 2003 the Belarusian debt to Russia for gas delivered was about USD 140 m. The new loan of USD 170 m, which Belarus received from Russia 'as compensation for the increased price' can of course not solve the problem, but only restructures the existing debt.

**Table 1. The collection rate of the JSC "Beltransgaz" and the structure of its accounts payable and receivable**

	1999	2000	2001	2002	2003	2004, 9 months
Payment rate as a % of the total value of imported gas deliveries	121.9	112.2	95.6	108.4	109.5	101.5
Payment in cash, %	16.3	15.9	3.3	34.5	54.2	87.0
Payment rate as a % of the total volume of the gas delivered to final consumers	90.8	97.6	94.9	97.5	107.9	99.0
Cash payments as a % of the total revenue from selling gas to final consumers	62.4	23.3	12.7	22.4	42.0	77.0

Source: Beltransgaz.

<sup>5</sup> The length of the trunk pipelines is 6,931 km. The overall length of all gas pipelines belonging to "Beltransgaz" is 18,933 km. The gas distribution system consists of over 190 gas distribution stations and gas distribution houses. In 2002 Belarus consumed 17.4 bcm and transited 27.5 bcm. The figures for in 2003 were 18.1 and 33.0 bcm, the plan for 2004 calls for 18.5 and 33 bcm, and for 2005 for 19.1 and 35 bcm.

<sup>6</sup> Since February 1, 2003, new norms concerning barter in payments for energy resources were set (resolution of the Council of Ministers №234 «On Minimal Norms of Cash Payments and Maximum Limits for Non-Cash Payments for Gas, Electric and Thermal Energy in 2003»). Almost all gas and electricity consumers must pay 95% of the energy resources consumed in cash and on time. Several directors of state enterprises were laid off for failing to meet this new requirement.

<sup>7</sup> The currency revenues increased by 43.7% compared to the first half of 2004.

### 3.2. The "Beltopgas" Concern

The "Beltopgas" Concern consists not only of gas enterprises but of many other businesses as well, including some that are not connected with gas at all. In general the concern comprises 69 enterprises. Among them are 7 big gas enterprises (6 oblgas: one per oblast and Minskgas), 32 plants producing peat, 3 enterprises producing gas equipment, and many others. Most enterprises, primarily those involved with gas deliveries, are state owned.

Beltopgas is facing the following problems:

- Depleted assets and a desperate need for new investment;
- Delays in payments considerably hamper the financial results of the concern (the main non-payers are agricultural enterprises and communal heating enterprises);
- Preferential prices and the obligation to subsidize certain groups of the consumers, although these obligations are not financially supported by the state;
- 'Politically' fixed costs<sup>8</sup> make up more than 80% of the concern's costs. This is possible because of Beltopgas' status as a non-corporatized, state-owned firm with limited possibilities for independent, profit-oriented decision-making<sup>9</sup>.

### 3.3. Tariff policy and sector regulation

#### *Network access*

Until 2004, the conditions for third parties to access the high-pressure network of Beltransgas had not been clearly defined. However, in May of 2004 resolution #73 established the tariff for gas transportation via the Beltransgas pipeline (USD 8.14 per tcm) with a view to increasing the openness and fairness of operations. Yet in practice, only very few companies can potentially benefit, since the trunk lines of Beltransgas, carry only high pressure gas, which can only be reduced at the gas distributor stations of the Beltopgas system.<sup>10</sup> Network access to the low-pressure network of Beltopgas by third parties was set at BYR 4000 per 1000 cm (without VAT) as of April 1, 2004, and that anywhere within the system. Although it is a considerable achievement to have the tariffs for gas transportation clearly defined now, numerous administrative barriers for network access by third parties still remain.

#### *Prices for industrial consumers*

Until 2004, Russia based the price levels for gas supplied to Belarus on its own domestic prices. In Russia, natural gas prices had been set at below-cost levels, and cross-financed by revenues from exports of gas to Western Europe. Hence, granting the same price to Belarus amounted to a subsidy by the Russian gas industry, which was given in return for political and economical concessions.<sup>11</sup> However, since low and cross-financed domestic energy prices are increasingly hampering Russia's bid to join the WTO, the prices have steadily increased since 2002. Consequently, the import prices for Belarus registered the same trend (Table 2). Finally, Russia refused to grant its domestic prices to Belarus in early 2004, and import prices rose by about 25%.

Once gas is imported into Belarus, its price formation along all stages of the domestic gas industry relies on a "cost plus" approach. The Ministry of Economy approves initial prices (declarations) in the form of a special document (resolutions "On prices for gas") in coordination with enterprises of the sector, which provide their calculations for prices, costs and mark-ups. Through such resolutions the Ministry of Economy sets prices for Beltransgas, the Beltopgas enterprises and all preferential consumers.

Between 2000 and 2002, natural gas mark-ups – especially for Beltopgas – have been reduced significantly, mainly cross-financed by additional profits from higher gas transit volumes. Since 2002, these mark-ups have remained at relatively constant levels; they even increased last year. With increasing import prices, efficiency improvements within Beltransgas and Beltopgas

<sup>8</sup> We call them politically fixed costs, because they could be reduced if there was no political call for them.

<sup>9</sup> Enterprises cannot reduce the number of employees, as there exists an informal ban; many social objects or ancillary businesses cannot be separated, corporatized or privatized, etc.

<sup>10</sup> At present "Beltransgas" sells gas only to the Beresovskaya power station and to "Beltopgas".

<sup>11</sup> For example, an inter-government agreement provides access by Gazprom to the Belarusian gas sector, in particular the transit lines.

will be of crucial importance, as they would allow for reducing margins. However, the existing cost-plus regulation does not provide incentives for cost reduction and increased efficiency. Even worse, a considerable share of the available funds has to be used for politically enforced fixed costs and state-prescribed investment programs such as rural 'gasification', support of peat enterprises, etc.

**Table 2. Price dynamics for gas and its structure for industrial enterprises, USD per tcm**

Resolution of the Ministry of Economy	25.05.99 №52	25.01.00 №14	29.03.01 №67	13.06.02 №124	25.11.02 №251	24.01.03 №25	25.09.03 №6194	28.01.04 №21
Purchase price for imported gas	na	30.00	30.00	24.52	33.59	34.37	37.59	46.68
Markup of "Beltransgas"	na	11.38	11.38	10.03	9.14	6.99	6.92	8.14
The price of "Beltransgas"	40.50	41.38	41.38	34.55	42.73	41.36	44.51	54.82
Markup of "Beltogas"	16.30	17.42	15.38	13.38	9.17	9.53	9.43	12.18
The price of "Beltogas"	56.8	58.8	56.67	47.93	51.90	50.89	53.94	67.00

Note: including VAT (20%)

Source: Beltransgas and Beltogas

As for the final consumers (prices for the Beltogas Concern and eligible enterprises), the Ministry of Economy sets a variety of prices. Some enterprises enjoy preferential prices. Among them are electricity generation and enterprises of the machinery, chemical, light industries<sup>12</sup>. It should also be stressed that the criteria for and the necessity of setting preferential prices are not clearly defined, and that the list of preferential consumers varies from resolution to resolution. For example, in 2004 the price for the majority of enterprises (including electricity, agriculture, etc.) is USD 67 per tcm. But, simultaneously, the following preferential prices exist:

- for generating power at the Beresovskaya power station, including electricity for export to Poland: USD 52 per tcm;
- for enterprises under the auspices of the Ministry of Sport and Tourism, for plants producing peat, peat equipment and peat mining, and for the Novopoloczki plant for protein and vitamin concentrates: USD 33.5 per tcm;
- for two chemical enterprises ("Dolomit" and "GrodnoAsot"): USD 56.9 per tcm;
- for 18 other enterprises: USD 63.65 per tcm.

Such a policy of benefiting selected enterprises creates an inefficient allocation and distorts the national economy.

#### *Prices for households*

At the very beginning of the transformation process practically all countries accepted the need to cross subsidize households by industry for reasons of social protection. Over time the differences between tariffs (their ratio) changed towards increasing the tariffs for private users. Gas cross subsidizing in Belarus was officially abolished in 2003. However, because supplying gas to small household consumers is more expensive than to large industrial plants, the household tariffs (table 3) are still lower than Beltogas' general industrial tariffs (table 2).

**Table 3. Dynamics of the average prices for households for natural gas**

	2000	2001	2002	2003	2004, 9 months
Average tariff, USD per tcm	9.2	13.0	27.5	52.8	56.9
Average cost coverage, %*	30	41	90	150	140

Source: tariffs – Beltogas, cost coverage – the Ministry of Economy.

<sup>12</sup> One obvious advantage of this could be that the list of beneficiaries is broad but exhaustive.

### 3.4. Resume

The Belarusian gas sector consists of 2 companies: Beltransgas and the state-owned concern Beltopgas. Both enterprises are facing many problems and difficulties, which are mainly the consequence of the current regulatory practices.

As far as price policies are concerned, the prices as such do not appear to be a significant problem. Since current household tariffs are considered to cover around 130% of the respective costs (Table 3), industry tariffs (Table 2) can be expected to cover an even greater share of their costs because the cost to supply gas to industries is lower than to households. Although numerous privileges exist for industrial consumers, and despite the social orientation of household prices in favor of the rural population, it is unlikely that the tariffs now being applied fall short of the reported costs.

Rather, the Belarusian gas industry suffers from the financial and economic problems connected with a general lack of reforms, such as low payment discipline, lack of transparency of the financial flows and some payment schemes. Also, both enterprises are overloaded with social burdens, and the current practice of cost-plus regulation rewards neither efficiency nor elements of competition. On the contrary, any improvement made within the sector was made using administrative resources, the capacities of which are not infinite. All these problems can be solved only by instituting reforms, aimed at demonopolization, commercialization and corporatization of the sector.

### 4. Directions for reforms and gas sector restructuring

As noted in the previous sections, the opportunity to benefit from the very low import prices during the years 2002 and 2003 was not grasped adequately for purposes of maintenance and investment in infrastructure. Instead, some investments went into non-core business activities (in part socially motivated), and others were simply 'stashed' away within an inefficient structure that does not reward initiative or efficiency.

On the one hand, the crucial importance of gas for the Belarusian economy requires having gas prices as low as possible. On the other hand, the huge need for investments in infrastructure and equipment should – at least partly – be financed by private investors, since public funds are limited and are also needed for investments in the social sphere such as in health care, education, etc. Hence, gas industry policy should be directed towards sustainable, profit-oriented development. Reform of the sector will only be successful once it creates an environment encouraging more efficient enterprises. The enterprises themselves should attract consumers by offering the best "price-quality" ratio. Obviously already existing enterprises might have advantages over new firms. But these advantages (in particular the already existing infrastructure) must be used in favor of an overall development of the sector (e.g. by guaranteeing access to this infrastructure at equal prices), and not as an obstacle to competition. In any case, consumers or investors rather than the state should decide the advisability of an investment project or the creation of a new firm.

Against this background, we recommend to develop the following policies:

- Provide incentives for efficiency increases in the gas sector;
- Create attractive investment opportunities for the private sector;
- Do not require privatization of the state-owned enterprises within Beltransgas and Beltopgas.

*In this regard the following steps could be taken:*

#### A. Price reform

The first and easiest reform concerns the pricing policy, which should be redefined for both, Beltransgas and Beltopgas (final consumers) based on the following principles:

- Tariffs for final consumers must be set on cost-based levels for households and for industries without allowing for cross subsidization<sup>13</sup>;

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<sup>13</sup> Although cross-subsidization of households by industry does not exist any more, Belarusian policy makers are still considering it a useful strategy, as the reintroduction of cross-subsidization in the electricity sector demonstrates. Hence, a similar step for the gas sector cannot be ruled out at the moment.

- Cost levels must include for the accumulation of funds for investments;
- The prices for all industrial consumers must be equal.

Missing meters<sup>14</sup> for gas consumption must not be considered an obstacle for reform development. Rather, any effort towards improving the pricing policies must provide for investment funds for installing gas meters. This will not only allow for exact billings based on actual consumption, it will also give consumers incentives to reduce consumption and thereby reduce their dependency on gas. After meters are installed, anybody can easily determine how much gas he used, and “Beltopgas” can clearly say how much it has cost them to supply this gas. Establishing cost-covering tariffs on this basis will be transparent and clear.

At the same time, support for poor households must be provided by the state, or temporarily through lifeline schemes, where prices for consumption up to a ‘minimum’ threshold are subsidized by higher prices for consumption in excess of this threshold.

Simultaneously, the work on improving payment discipline must be continued with all groups of consumers, using economic as well as administrative measures without any exemptions.

Finally, the practice of using the proceeds from international gas transit to finance the domestic gas supply should be stopped. Instead:

- Cost-covering tariffs within the domestic gas sector should replace cross-subsidies;
- The revenues from the international transit should be used to cover all transit costs and to finance approved investment programs to maintain and expand the existing transit infrastructure;
- Excess revenues, which are not used to cover costs and investments, should be transferred to the state. There they can be used to finance social targets related to the gas sector such as gasification of rural areas or direct support to the poorest households to compensate for the increased gas tariffs.

## **B. Restructuring and corporatizing enterprises within the “Beltopgas” system**

Just like with any other business, corporatization of “Beltopgas” and “Beltransgas” should aim at creating independent companies with the right to make independent decisions concerning production, investments and structural changes. The management of each company must be imbedded in a mix of incentives and obligations in order to ensure that their decisions are driven by the maximization of operating profits and thus, shareholder value. In turn, the shareholders (in this case the state) retain a control function over the management to ensure that it is acting so as to maximize shareholder value. Only in this way can corporatization create enterprises that continuously seek to improve performance and efficiency.

Against this benchmark “Beltopgas” and “Beltransgas” still need significant restructuring. Both enterprises are overburdened with non-productive assets, and (although in part already officially corporatized) they are not yet free to make decisions about how to make and spend money and where to invest. Together with the introduction of the new pricing policy discussed above, the current practice of forcing investment funds to be used for social purposes has to be stopped. Restructuring and corporatization also includes the necessity and the possibility to divest all ancillary enterprises that are not related to the core business. Social burdens and politically fixed costs may not allow considering these enterprises as real ‘businesses’. Instead, numerous social objects, which are now parts of these enterprises, must be restructured, separated, sold or transferred to the responsibilities of municipal authorities. Full corporatization must free enterprises from such politically enforced expenditures. In addition to reducing costs and limiting the spheres of responsibility, corporatization will create new systems of incentives and motivation.

To avoid cross-subsidization between different activities within a single firm (a particularly severe impediment for the development of competition within the different activities), full corporatization must include a strict separation (unbundling) of network operations and gas

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<sup>14</sup> As metered consumption costs considerably less than norm consumption today, one could say that there should be an incentive for houses/apartments to have meters installed. But the cost of installing meters is rather high and should not be borne by consumers only. Part of the installation costs could be recuperated by charging rents for meters; another part could be financed with the help of international donors who support such efforts.



supply (retail) activities within each company, and for the case of Beltransgas also a separation into international transit and domestic transmission. Furthermore, in order to ensure credibility of the corporatization, all companies should provide a sufficient degree of transparency, e.g. through regular independent audits according to international standards.

### **C. Implementation of “regulated competition”**

In order to avoid any type of interference, the sector needs a regulator independent from both, the gas business and the government. This body should set “the rules of the game”, taking into consideration the interests of all groups involved. Among its first actions the regulator should make changes to the tariff policy that will bring more competition to the sector.

First of all, the regulator needs to set tariffs for access to the high-pressure network. This would allow not only the network operator (“Beltransgas”) but also any other company with the necessary technical qualifications to access the network at the same price. The regulator should not set prices for final consumers of the high-pressure network, which should be determined by competition (all providers pay the same access tariff to the network, but compete by having different prices for their own gas purchases, retailing activities etc.). The companies having access to the high-pressure network need to be corporatized to ensure that they have incentives to take the economically most attractive offer. Successful unbundling will then have ruled out possibilities for cross-subsidization, and having independent audits will identify those operative decisions that do not contribute to the goal of profit maximization.

The number of actors that are able to benefit from such ‘regulated competition’ is rather limited at the present time. However, even when competitive forces will (or can) not unfold immediately, our reform proposals still improve the current situation by eliminating non-transparent transactions and cross subsidization in the short run. Over the medium and long term, entries of new gas traders are likely since the new regulation structure will provide transparent conditions and competitive rewards. Once these structural changes are in place, the high-pressure network will become more attractive to private investments, which can take the following forms:

- *Corporate bonds*: These are flexible but expensive instruments, and therefore only suited for short-term financing.
- *Loan agreements with domestic and international banks and finance institutions* (e.g. EBRD): These are well suited to long-term agreements. The proposed scheme of ‘regulated competition’ would form the basis for satisfying the conditionality criteria, especially for international loans.
- *Public-Private Partnerships*: They could take the form of management contracts or operating concessions for (separable parts of) “Beltransgas” by private entities. This would allow utilizing the efficiency potential of the private sector without privatization.

Finally, once ‘regulated competition’ works for the high-pressure segment it should gradually be expanded to the low-pressure network of “Beltopgas” as well.

In addition to providing a sustainable solution to the problems of the domestic gas industry without relying on outside support, the proposed reforms of the domestic gas sector will also increase Belarus’ credibility as a reliable transit partner. In particular, it will demonstrate the good intentions of the government to solve the major problems of its domestic gas industry without requesting subsidized prices or using the gas transit activities for cross-financing a loss-making domestic industry, as in the past. In this way, the proposed reform program would also contribute significantly to improve the chances of Belarus to benefit more from international gas transit.

## **5. Conclusions and policy recommendations**

Gas plays a very important role within the Belarusian economy. Up to now Belarus has been subsidized by Russia, yet all the potential opportunities arising from the cheap import prices have been spent mostly on social projects and preferential pricing for selected consumers. The unavoidable future price increases will lead to painful consequences for some consumers and to difficult choices in general. But the industry’s problems of adjusting to the new gas price reality could be eased by reducing costs inside the gas sector and increasing efficiency. This in turn requires investments and reforms. Experience throughout the EU and the CEE shows that

the best solution for making the sector more attractive for new investment is to implement transparent and competition-oriented regulatory policies.

In order to open the sector to new investments some restructuring and corporatization measures must be implemented. If an enterprise is overburdened with unproductive assets and is not free to spend its revenues and invest profits, it operates in the same manner as a state enterprise, using the same sources of investment, namely the Ministry of Finance's money. Under these conditions, managers are not motivated to promote cost reduction and increase efficiency. Therefore we recommend full corporatization of all gas enterprises and deep restructuring of the whole sector, with a view to dedicate management to maximize shareholder value (the state being and remaining the main share holder).

The required regulatory changes have two aspects. First of all, in order to achieve cost and profit transparency the sector needs to implement a new price policy which bases the tariffs for the final consumers on cost-based levels (which of course must include some profit). This principle must apply equally to both households and industries without any cross subsidization. Secondly, "regulated competition" should gradually change the current "cost plus" approach. To avoid any type of outside interference, this definitely requires an independent regulator. Among the first actions of such a regulator we suggest that tariff policy changes be implemented that will bring more competition to the sector.

All these short-term reforms will lead to a more reliable, profitable and efficient performance in the gas sector in Belarus, while at the same time increasing the reputation of Belarus as a predictable transit country.

Authors: Elena Rakova, Ferdinand Pavel

Lecturer Igor Pelipas

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## Appendix

**Table 1. Comparative review of natural gas policies in Central Europe, 1H 2002**

Country	Average household price, USD per tcm	Average Industrial price, USD per tcm	Name of the regulator and when established. Competition in the sector	Privatization of the main gas company, ownership
Slovakia	110	100	Regulatory Office of Network Industries, 2001. RONI regulates tariffs. In 2001 the Ministry of Economy published a decree allowing the largest eligible customers to choose their suppliers.	The integrated gas company SPP was partly privatized in 2002 (a consortium made up of Ruhrgas, Gas de France and Gazprom have paid USD 2.7 bn for 45%)
Czech Republic	230	150	Energy Regulatory Office, 2001. ERO sets natural gas prices. It regulates the maximum price Transgas can charge the distribution companies for wholesale gas purchases and the maximum price at which the distribution companies sell gas to their end customers. The Czech Republic is phasing in competition for the largest, eligible consumers in order to meet EU regulations so that at least 28% of the annual gas consumption will be met through retail competition and not through regulated distribution.	The integrated gas company Transgas was privatized in 2002. The German firm RWE purchased 97% of Transgas and 46 to 58% stakes in eight regional gas distribution companies for \$3.7 bn.
Poland	300	160	Energy Regulatory Authority (URE), 1997. URE sets natural gas tariffs for domestic consumers. PGNiG has suffered losses because tariffs do not fully cover costs, particularly for residential consumers. In 2001, the Ministry of Economy adopted a new formula for calculating gas tariffs, which is designed to eventually allow for full cost recovery.	The Polish Oil and Gas Company (PGNiG) is an integrated, state-owned oil and gas monopoly.
Hungary	180	160	Hungarian Energy Office (MEH), 1994. The Hungarian Energy Office regulates prices and issues licenses in the gas sector.	MOL, the Hungarian oil and gas company, was privatized in several stages beginning in 1993, through share offerings to employees and management, initial public offerings on the Budapest stock exchange and international private placements to institutional investors. Currently, international investors hold 52.1% of the company, various domestic investors own 22.9% and the State Property Fund retains 25%.
Bulgaria	145		State Energy Regulatory Commission (SERC) is an independent specialized state body whose members are elected by the Council of Ministers and appointed by the Prime Minister. SERC's competence is related to	Bulgargas is a state owned vertically integrated company who is the only supplier to consumers and gas distribution companies in Bulgaria (gas sales are

issuing and withdrawing permits and licenses; regulating prices and tariffs; developing and proposing for adoption by the Council of Ministers of secondary legislation concerning the order and conditions for issuing permits and licenses and determining the rules for setting electricity, heat and natural gas prices. SERC determines the rate of return of the gas companies' capital – 8% for the transmission company and 15% for the gas distribution companies.

97%) and owner of transmission systems, underground storage, and also a part of the distribution system. By the end of 2006 the monopoly is intended to end, following a restructuring and dividing Bulgargaz into several joint stock companies for import, transit, storage, and distribution.

Romania 130 110

National Natural Gas Regulatory Authority, 2000. ANRGN regulates the natural gas sector. Responsibilities include tariff setting, authorizing and licensing companies, protecting consumers, controlling the natural gas sector companies, issuing technical norms, and regulating access to the transmission and distribution grids.

In 2000 the state monopoly ROMGAZ. S.A. was split into five independent companies, all 100% state-owned, as follows: DISTRIGAZ SUD Bucuresti – responsible for supply and gas distribution, DISTRIGAZ NORD Targu-Mures – for supply and gas distribution, EXPROGAZ Medias – responsible for gas production and underground storage, DEPOGAZ Ploiesti – responsible for underground storage, TRANSGAS MEDIAS – in charge of gas transmission and transit.

In 2001, EXPROGAZ and DEPOGAZ were merged into a single entity called S.N.G.N. ROMGAZ. S.A., having as its main activities exploration, production and underground storage.

Source: International Energy Agency (IEA), Internet sources

**Table 2. Functional Organisation of the Gas Industry**

	Gas Production	Gas Transit/ Transmission	Gas Distribution	Gas Storage
Slovakia	49% privately held			<sup>15</sup>
Czech Republic	97% privately held; some independent gas distribution <sup>16</sup>			
Poland	100% state owned (except transit is partially owned by a subsidiary)			
Hungary	75% privately held			
Bulgaria	100% state owned		3% privately held	100% state owned
Romania	35% privately held (three production companies)	100% state owned	40% privately held (20 distribution companies)	100% state owned

Source: International Energy Agency (IEA)

<sup>15</sup> Natural gas storage in Slovakia is owned by a private company, Nafta Gbely. SPP owns 51% of this company.

<sup>16</sup> All the major distribution companies are partially or majority owned by RWE, which also owns Transgas. One small distribution company is not part of this group.