German Economic Team in Belarus
Research Centre of the Institute for Privatization and Management
Institute for Privatization and Management

Belarus Infrastructure Monitoring

Dzmitry Babicki, Elena Rakova, Vera Volchok, Ivan Poltavets

2005

Dzmitry Babicki, M.A. in Economics: Research Center of the Institute for Privatization and Management, Minsk, Belarus. Specializes on the performance of the Belarusian transport sector and agriculture.

Elena Rakova, Ph.D. in Economics: Research Center of the Institute for Privatization and Management, Minsk, Belarus. Special focus on the performance of the Belarusian energy sector, in structural and competition policy and enterprise reform.

Vera Volchok, M.A. in Economics: Research Center of the Institute for Privatization and Management, Minsk, Belarus. Specializes on the performances of the financial and real sectors, and telecommunications.

Ivan Poltavets, M.A. in Economics: Institute of Economic Research and Policy Consulting (IER), Kiev, Ukraine. Focuses on infrastructure development and regulation with a particular concentration on restructuring of the railway, road and energy sectors.

Minsk
Ravnodenstvie
2005

UDK 338.49(476)
BBK 65.6(4Беи)
M 81

A u t h o r s :
E. Rakova, Dr.; D. Babicki; V. Volchok; I. Poltavets

R e v i e w e r s :
Dr. F. Pavel, Dr. I. Tochitskaya

Belarus Infrastructure Monitoring / E. Rakova; D. Babicki; V. Volchok;
M 81 I. Poltavets. — Mn.: "Ravnodenstvie", 2005. — 40 p.
ISBN 985-6736-15-3

The work provides analysis of reforms in railway, road, telecommunication, gas and electricity sectors in Belarus in 2004.

UDK 338.49(476)
BBK 65.6(4Беи)

ISBN 985-6736-15-3

List of abbreviations

BNT	Belarusian Network of Telecommunications
BR	Belarusian Railways
CPI	Consumer Price Index
EBRD	European Bank for Reconstruction and Development
GET	German economic team
MDC	Mobile Digital Communication
MTS	Mobile TeleSystems
PPI	Producer Price Index
IPM RC	Research Center of the Institute for Privatization and Management

Weights, measures and other abbreviations

tcm	thousand cubic meters
bcm	billion cubic meters
bn	billion
BYR	Belarusian ruble
eop	end of period
kW	kilowatt
kWh	kilowatt-hour
m	million
trn	trillion
USD	United States dollar
yoy	year-on-year

Содержание

Foreword

This is the second issue of Belarusian Infrastructure Monitoring (BIM). BIM was designed by the IPM Research Center, which is an independent research body, together with the German Economic Team in Belarus (GET). BIM is a tool used to assess the progress of structural reforms in key infrastructure industries and has as its goal the monitoring of annual changes in the infrastructure sector. The indicators developed within the BIM are intended both for monitoring the government's infrastructure policy and for research purposes.

The methodology used in BIM follows the concept of the Infrastructure Monitoring for Ukraine (IMU) of the Institute for Economic Research and Policy Consulting (IER) in Kiev, Ukraine[1]. This concept is based on the approach developed by the EBRD, which estimates infrastructure indices for all transition countries. Since 1998, these indices have been published annually in the EBRD Transition Report.

This report presents information on the restructuring of five infrastructure sectors of the Belarusian economy in a standardized manner, which allows for cross-industry comparisons. Whereas the 2004 BIM report covered four infrastructure sectors, in this 2005 report, a fifth, the telecommunication sector has been added. The monitored 21 indicators are qualitative and fall into three broad categories: (1) commercialization, (2) tariff reform, and (3) regulatory and institutional development. The aggregated index calculated on the basis of indicators presents the status of the reforms in each sector at a given period.

A short summary outlines the major developments within selected sectors of the infrastructure. A general analysis of the Belarusian infrastructure policies is presented in the second section. This detailed review of the reforms in each of the five sectors includes not only ex-post analysis, but also an outline of the major challenges and prospects for future sustainable development. A description of the reform progress in each infrastructure sector supplements the numerical evaluation and provides a broader view of the situation. Appendices summarize the evaluation in tabular form and provide methodological explanations and detailed comments for each indicator.

[1] See www.ier.kiev.ua

1. Summary

During the year 2004 infrastructure industries demonstrated a slight decline or resistance to adjusting their performance to market requirements due to a lack of substantial structural changes (corporatization and privatization, vertical unbundling, independent regulation). The road sector failed to implement further market reforms. Telecommunications, electricity and railways also continued to be resistant to implementing market reforms. While the overall reform process slowed down, the gas sector demonstrated moderate success towards market reforms. In general, the most urgent reform requirements outlined in the first issue of BIM remain unaccomplished.

For the **Railway sector**, the 2004 index has not changed, remaining at 1.4 as in 2003. The monopolistic railway operator Belarusian Railways preserved its status. There were no changes in ownership, operation, budget financing or the tariff setting procedures. The process of eliminating cross-subsidization was not as rapid as between 2001 and 2003. The main positive change in this sector in 2004 was the decision to introduce (free) tickets for privileged passengers who, in the past, had been permitted to simply show their documents to the railway personnel in trains. This change was minor and did not affect the overall index.

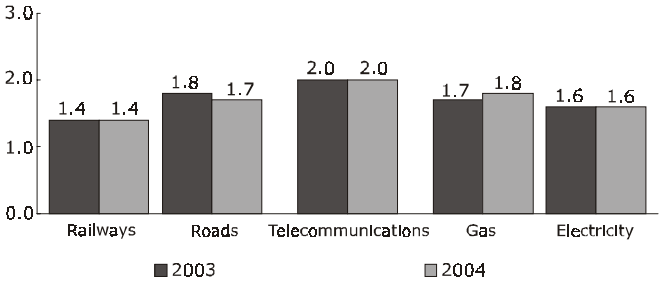
The **Road sector's** index fell from 1.8 to 1.7. In general, reforms in this sector prior to 2003 had moved faster than in other infrastructure sectors. In 2004 the operations of private passenger transportation companies became more difficult due to stricter permission requirements, the introduction of cash registers and increased import duties on buses. This led to increases in their costs and their market share fell by several percentage points in 2004. The regulatory environment regarding the import of heavy trucks remained unfavorable for private carrier companies, which forced 13% of them to suspend their activity in Belarus.

The **Telecommunications'** index remained at the level of 2003: 2.0. Beltelekom remains the major operator in the telecommunications sector. The government managed to postpone the Beltelekom privatization, which has been rescheduled for 2007. Moreover, the state share in the sector is constantly increasing. The creation of a third GSM-operator financed with 100% state capital increased the state's predominance in this sector. Despite the relatively high profitability of the companies in telecommunications, preserving cross-subsidization in the stationary lines segment and the planned preferential treatment of the new GSM-operator are not fostering reforms and sustainable growth.

In 2004 some reforms were implemented in the **Gas sector**. Considerable improvement in payment discipline and opening the network of Beltransgaz and Beltopgaz to third party access have led to a slight increase in the index from 1.7 to 1.8. However, renewal of cross-subsidies and maintenance of preferential prices for some industrial consumers will create further challenges and problems for the financial state of the sector.

Steps toward restructuring in the **Electricity sector** were postponed; there were no significant reforms in this sector. A planned government meeting regarding restructuring of the sector did not take place in 2004. Some small positive changes were made using administrative measures. For example, the government managed to maintain and slightly improve previous achievements in payment discipline. However, the domestic and foreign debt for consumption during previous years has remained unchanged. The cost coverage of household tariffs declined. Tariffs remain below costs, while the practice of setting preferential prices for selected industrial consumers was reinstated. The index remained at the level of 2003: 1.6.

Figure 1
IPM RC infrastructure reform indices for Belarus



Source: own estimations.

2. Belarusian infrastructure policies in 2004

Despite the obvious success in achieving macroeconomic stabilization, market oriented structural reforms are still not on the government's agenda in Belarus. Restructuring and privatization of enterprises, and the establishment of a regulatory framework independent of political interference, are no priorities for the government. The general impression that emerges from analyzing the five infrastructure industries in this report (roads, railways, telecommunications, gas and electricity) is a slight deterioration in their overall performance. Only the reforms in the gas sector have shown some progress, which was, however, due more to political considerations than to any decision to implement structural reforms (see Figure 1).

Reforms in the **transport sector** were not homogeneous. No attempts were made to reform Belarusian Railways, a large state holding company that is the monopolistic railway operator and provider of transportation services. By contrast, the automobile transportation markets were quite open to competition though this segment's scope decreased in 2004 for both freight and passenger transportation. State-owned providers of road transportation services have not been privatized and generally received more favorable treatment than their private competitors. As a result of a number of negative changes, national carrier companies have lost their markets in neighboring countries. Transit via railways has also fallen partly due to the uncompetitive environment in the railway sector in Belarus.

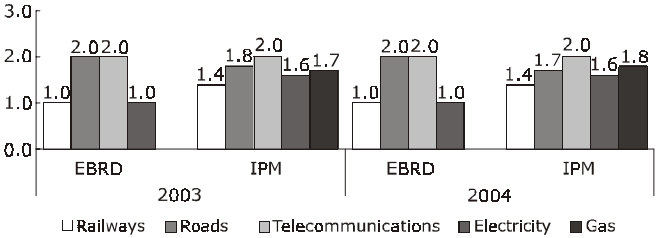
Telecommunications is a fast growing sector. Despite growing competition both between mobile phone operators and internet providers, it suffers from increasing government pressure and interference. In particular, the tender for creating a third GSM operator was canceled in favor of establishing a state owned mobile phone company. The formally existing decentralization was eliminated. The Minsk City Telephone Network company, and the Long Distance Calls company, including 6 regional telecom enterprises, have all become Beltelekom branches.

The energy sector (both gas and electricity) demonstrates contradictory success. On the one hand, a sharp reduction of barter schemes and considerable improvements in payment discipline have occurred. By use of administrative measures, all current consumption of imported gas and electricity is paid on time and mainly in cash. For internal payments, non-money schemes were, in most of cases, less than 10%. Attempts by the government to impose stiffer payment discipline have led to very significant progress. However, the government did not manage to completely eliminate the practice of soft budget constraints and non-payments. On the other hand, the practice of tariff setting has worsened. The remaining cross-subsidies, preferential prices for some industrial enterprises and incomplete compensation by the state applying to the reduced tariffs for certain household groups still have negative effects on the financial results of the energy enterprises, thus restraining investment in new equipment and technologies. Since 2003 there have been no further attempts to eliminate cross-subsidies for household natural gas consumption. Moreover, cross-subsidies for household liquefied gas consumption remain, as well as preferential tariffs for a number of industrial consumers. All these expenses must be covered by the gas enterprises, which in consequence overcharge most industrial enterprises to offset these costs. In the electricity sector cross-subsidizing of households by industry was reinstated by the end of 2004. The remaining cross-subsidies, preferential prices for some industrial enterprises and incomplete budget compensation for the reduced tariffs for certain household groups still have a negative effect on the financial results of the energy enterprises, thus restraining investment in new equipment and technologies.

There are only minor differences between the EBRD and RC IPM indices (Figure 2). The EBRD experts did not find much progress in implementing reforms in any sector of the Belarusian infrastructure, and neither up- nor downgraded the indices relative to

2003. However, RC IPM has noted some changes in 2004 and changed its indices vis-a-vis 2003 accordingly. In particular, the index for the road sector was reduced from 1.8 in 2003 to 1.7 in 2004 primarily due to the worsening of the regulatory framework for private companies. Neither the EBRD nor the RC IPM experts found changes when evaluating the telecommunication, railway and electrical power sectors. The index for the gas sector was increased from 1.7 in 2003 to 1.8 in 2004 due to improvement in payment discipline and opening the network to third party access. Despite some divergence of opinion, the EBRD and RC IPM indices do not conflict with each other.

Figure 2
Infrastructure reform indices for Belarus



Source: EBRD (2003) Integration and regional cooperation; EBRD (2004) Infrastructure transition report 2004; IPM RC estimates.

2.1. Railways

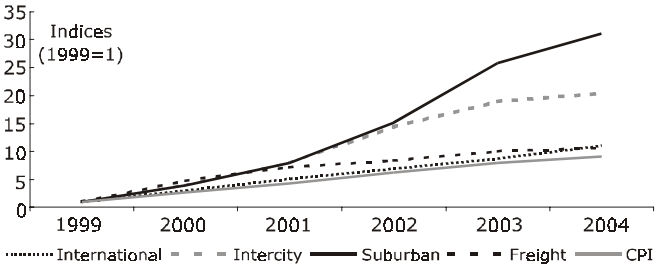
2.1.1. Progress in 2004

There was no significant progress in reforming the national railway sector in 2004. Cross-subsidization of domestic transportation services (both freight and passenger) at the expense of transit operations remained one of the main issues for Belarusian Railways (BR). In terms of revenue, the internal transportation services account for about 30% of the total amount of services provided by BR. Internal passenger transportation makes great losses: the revenues covered only 39% of the costs in 2004 (30% in 2003). In contrast, revenues from international passenger transportation exceeded costs by 26%.

The tendency during the years 2001 to 2003 to reduce cross-subsidization within passenger transportation was reversed in 2004. Tariffs for domestic transportation grew more slowly than those for international and transit transportation[2] (Figure 3). As in recent years, tariffs for passenger transportation grew faster in 2004 than they did for freight transportation. The result was reduced cross-subsidization between these two kinds of transport. The freight transportation tariffs grew by only 5.8% yoy, which is low when compared to the increases in automobile freight transportation tariffs and the PPI (both 19%). Both internal freight and internal passenger transportation operate at a loss. However, the rate of return for freight transportation is not as low as that for passenger transportation. Hence, increasing the tariffs on passenger transportation reduces the burden on the other types of railway transportation.

[2] Tariffs for international passenger transportation were increased by 26.4%, for intercity transportation by 7.6%, and for suburban transportation (which is the most heavily subsidized) by 20%.

Figure 3
Index of the tariffs for railway freight transportation, passenger transportation in international, intercity, suburban communication and CPI



Note. December 1999=1, December to December.
Source: Ministry of Statistics and Analysis.

In 2004 the law "On railway transport" was amended and as of January 1, 2005 all passengers that have free transportation privileges must obtain free tickets at the ticket offices before getting on trains. Previously they could just show their documents to railway personnel. This is an essential first step towards limiting the scale of cross-subsidization. This also permits an accounting system to be established, which allows the railway operator to clearly demonstrate the scope of services rendered at below-cost prices due to state regulations.

2.1.2. Reform agenda

It is vital for the development of the national railway network that all categories of consumers pay the full cost of the railway services rendered to them. The complete elimination of cross-subsidization between freight and passenger transportation and between domestic and international passenger and transit transportation must be realized. This will only be possible once the volume of privileges is reduced and income compensations replace price compensations for privileged passengers.

For a better functioning railway transportation system it is necessary to split the railway network operations from the provision of transportation services. The separation and privatization of non-core businesses will be the first challenge for BR. The enterprise should be freed from the burden of social support and have efficiency of operations and hence profitability as its primary goals.

Initially, BR should pass its social infrastructure holdings such as housing stocks, hospitals, and kindergartens to the state or to the local governments. All production plants, farms and service companies should be separated from the company as well.

The state should develop a clear regulatory framework by separating regulation from the economic activities of the railways. This can be achieved through the creation of an independent regulator for the sector. The independent regulator would ensure that investment and other decisions are not influenced by the concentrated interests of consumers of transportation services or by the railway construction companies. Later on it should also regulate the access of private carriers and forwarding agents into the market. A transparent tariff setting policy should be the regulator's responsibility and should not be influenced by BR.

Finally, the economic activities in this sector should be divided into separate companies. Initially these companies could form a holding. Then, after a suitable regulatory framework is in place and corporatization is occurring, it would be possible to consider privatization.

2.2. Roads

2.2.1. Progress in 2004

According to Belavtodor, the operator of the road network and a department of the Ministry of Transport, the ratio of the amount of actual spending of the public Road Funds (central and local) to required spending was only 37.2% in 2004. The ratio amounted to 46% in 2003 and 38% in 2002. The revenues of the Road Funds continue to be significantly lower than the required financing.

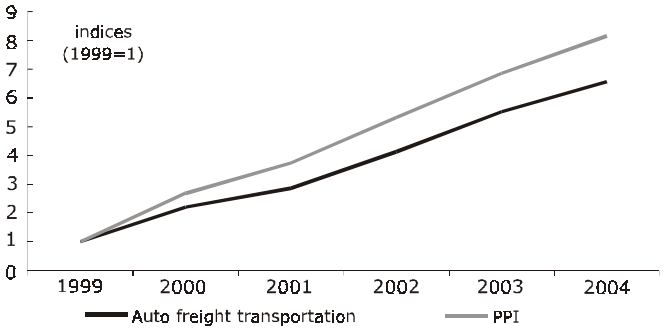
Discussions continued by Belavtodor about introducing additional toll roads in the country. Yet the single Belarusian toll road (M1/E30) continued to make losses in 2004 as well. According to Belavtodor preliminary data, road revenues increased to USD 24 m in 2004 from USD 21 m in 2003. At the same time maintenance costs rose from USD 35 m in 2003 to USD 44 m in 2004 (exceeding the budgeted amount of USD 35 m). This overspending on road maintenance reflects either inaccurate predictions of the maintenance requirements or the poor quality of the road. Prior to 2003, the amount of tolls collected covered the maintenance costs, though these were much lower at USD 17 m. The increase in maintenance costs is explained by the need to improve the quality of the road. Belavtodor kept arguing that all Belarusian users should pay tolls. Since December 1, 2004, light trucks and buses are also obliged to pay tolls, not only heavy trucks of Belarusian companies.

The freight transportation market continued to be depressed by unfavorable regulations regarding the import of heavy trucks. Resolution No. 1364 of the Council of Ministers prolonged the validity of the prohibitively high import duties on used heavy trucks and semi-trailers. Since May 2003 the effective import duty on used vehicles was EUR 3.00 per cm^3 of engine displacement. The abovementioned resolution reduced the duty to EUR 2.20 per cm^3 but the resulting duty still exceeds the average cost of a used truck. Presidential Edict No. 211 exempts non-residents from paying import duties for the first month a vehicle is in the territory of Belarus, and also exempted Belarusian vehicles registered in other countries from paying duties. This, however, had no positive effect on the sector. The number of carriers in international freight transportation shrank by 13% and the number of vehicles in use declined by 15% in 2004.

The unfavorable regulatory climate did, however, not lead to a decrease in the volume of service provided by private carriers. The tariff growth for road freight transportation equaled the PPI (Figure 4). The volume of road freight transportation services for export continued to grow, though not as rapidly as during previous years (11.4%).[3] For comparison, the growth rate of the railway freight transportation services for export was only 2.5% in 2004. In absolute volume, the export services of the former also surpassed those of the latter.

[3] The share of international transportation in the overall amount of services provided by cargo carriers is approximately 75%.

Figure 4
Index of the tariffs on automobile freight transportation and PPI



Note. Indices, December 1999 = 1; December to December.
Source: Ministry of Statistics and Analysis.

The regulation of private passenger transportation remained obscure in 2004. The role of the local authorities in regulating the local transport market is not defined in national law. In a number of towns, the local councils have given state transportation companies the power to regulate the use of road network by private providers. Thus these enterprises perform the functions of both service provider and regulatory body. The Ministry of Transport, using a Resolution of the Council of Ministers[4], started to require the installation of cash registers in private buses. Entrepreneurs who refused to buy one had their licenses revoked, even though Presidential Edict No. 4 (dated January 27, 2003) allows them to operate without cash registers.[5] Also, Presidential Edict No. 140 increased the import duties on vehicles to be used in passenger transportation, thus forcing entrepreneurs to switch to vehicles produced in Russia, which are less reliable and less environment-friendly. In some cities the local authorities started to engage in the minibus transportation market themselves. In Gomel, a state-owned company bought number of mini-buses operating them on the most profitable routes, and leaving private providers with the rest. In Minsk, the state service provider Minsktrans bought 200 20-seat minibuses formerly operated by a private company. In 2003 this company was sued and essentially forced to sell its buses. At the same time, state providers are not obliged to install cash registers and the requirements for the technical condition of their vehicles are less strict.

2.2.2. Reform agenda

To ensure sustainable development of the national road network it is necessary to improve the financing of the Road Funds. This could partially be achieved by increasing the volume of transit freight traffic through Belarus, which is possible only with better transit conditions for both carriers and forwarding companies. All categories of

[4] No. 1388 dated Novemer 20, 2003.
[5] The licensing procedure is somewhat obscure because when a firm is denied a license the licensing committee of the Ministry doesn't issue an official letter of rejection: the application is simply rejected. However, according to the national legislation only an official letter of denial can be evidence in a court trial if a firm wants to contest the decision of a licensing body.

users, including residents, should pay tolls on the M1/E30 road, and more toll roads should be introduced. The natural monopoly operator Belavtodor should be given more independence from the Ministry of Transport to ensure that decisions on financing road construction and maintenance are not influenced by the transport lobby.

The competitiveness of the national transportation market depends on the ability of the government to create a favorable regulatory framework. High truck import duties give an advantage to the main competitor of road carriers: the railway company and to firms residing in countries were the duties are lower (Russia). To make competition fairer, it is necessary to lower the duties on imported trucks. An ideal way would be to rescind the duties on leased imported vehicles used in international transportation. As a first step the period of so-called 'temporary import' of vehicles could be extended from 2 to at least 3 years to allow carriers to pay the duty in installments.[6] At the same time it is equally important to start the restructuring and privatization of all state-owned trucking companies.

To better develop urban passenger transportation markets the government has to clearly define the role of the Ministry of Transport and local authorities in regulating these markets. Currently, local authorities have too many tools that can be used to restrict competition on the market. This may result in corruption and underdevelopment of the service. Instead, regulatory bodies, independent both from the central and local state administrations, should be established at the local level. National legislation should defend local transportation companies from interventions by the local authorities and ensure equal treatment vis-a-vis public companies (including the same requirements for the technical characteristics of vehicles, use of cash registers, equal access to routes etc). Regional councils should not be involved in the regulation of the tariffs of private firms. It also must be ensured that all transportation companies pay their 'fair share' to the local Road Funds in a transparent manner.

Since all public transportation companies are operated at a loss, the government needs a strategy for their restructuring. If the losses are incurred because of government intervention (rather than the organizations' inefficiencies) these losses should be reimbursed from the public purse. A first step would be to sell off all freight transport vehicles and other redundant assets, since the major part in the overall volume of the service is already provided by private firms. Then the subsidization policy should be shifted towards augmenting the income of privileged consumers instead of providing price compensation.

2.3. Telecommunications

As the telecommunications sector was not considered in the 2003 BIM, we devote somewhat more attention to it in the 2004 report, beginning with an introduction to the situation prior to 2004. Telecommunications includes fixed telephony, mobile phone communications and the Internet.

2.3.1. Situation prior to 2004

Telecommunications is one of the most dynamic sectors of infrastructure[7]; however, like in the other sectors the government regularly interferes in its operation. The strategy of telecommunications development is defined and controlled by the gov-

[6] Current law allows paying the import duty in monthly installments of 3%, but the period of 2 years is too short to pay the entire sum.
[7] According to the Ministry of Communication and Informatization data, 791,400 new telephone exchanges were introduced between 2001 and 2004. Telephone density reached 33.7 telephones per one hundred persons. The number of telephones per one hundred households increased to 88.1, which is higher than in other CIS countries.

ernment. Several acts provide a framework for the sector's development. The program "On the development of communication facilities until 2000" had been adopted in 1994. The program "On the development of communication facilities during 2001–2005," and the state program "On the informatization of Belarus during 2003–2005 and until 2010," which is called Electronic Belarus, eventually replaced this program[8].

Implementation of these programs was assigned to Beltelecom, the state-owned natural monopoly in telecommunications. Beltelecom was created in July 1995 by amalgamating all communication enterprises that were subordinated to the Ministry of Communication and Informatization[9]. Within the scope of the state programs aimed at developing telecommunications, Beltelecom develops the primary network, lays fiber-optic cables, improves the secondary network replacing and modernizing telephone stations and introducing telephone numbers, and increases the number of ports for Internet access[10].

Beltelecom is the largest company in the sector, whose dominance is protected by the Ministry of Communication and Informatization. According to the program "On the development of communication facilities during 2001–2005," international and long-distance calls are the monopoly of state-owned telecommunication companies. This document also limits the competition for developing the telecommunication network. Despite both, the widely announced corporatization and the partial privatization of Beltelecom in 1999 (25% of shares were to be sold), and also the publicly proclaimed need for liberalizing the telecommunications sector, monopolization and direct government regulation and interference remain strong.

International and long-distance phone services are exclusively provided by Beltelecom. Local phone services can be provided by competing companies. Although there are no legal barriers for independent businesses to enter the local telephone market, essentially none have done so. The Ministry of Economy sets very low tariffs for local and rural telephone calls[11], which makes the sector penetration by private companies economically uninteresting. Beltelecom covers the losses it suffers on the local and rural telephone market with overcharging for international telephone services.

All external communication lines belong to Beltelecom. According to the licenses granted, all mobile phone operators and Internet providers are required to use Beltelecom facilities. Mobile phone operators are required to route international calls through Beltelecom. Internet providers are also forced to operate through Beltelecom. On the one hand, Internet providers have to lease international channels and circuits from Beltelecom. On the other, they are not allowed to install satellite antennas to provide alternative Internet connection facilities via satellites. Thus, the development of the Internet segment is largely prescribed by the existing regulations and determined by the providers' ability to increase the capacity of a leased channel, which defines the traffic speed.

[8] Resolution of the Council of Ministers No 124 dated March 5, 1994 "On the development of communication facilities until 2000." Resolution of the Council of Ministers No 402 dated March 26, 2001 "On the development of communication facilities during 2001-2005." Resolution of the Council of Ministers No 1819 dated December 27, 2002 "State program on the informatization of Belarus during 2003-2005 and until 2010."

[9] The Ministry of Communication and Informatization was previously known as the Ministry of Communication and later as the Ministry of Communication and Information.

[10] In 2003, the total extent of backbone cable lines was 25,000 km, as well as some 20,000 km of fiber-optic lines. The installed capacity of the local telephone networks including payphones was 3,227,013 lines. The total installed capacity of the network was 11,003 ports. The external line capacity was 200 Mbps.

[11] The cost recovery level for local and rural telephone calls was 80.3% (96.7% - local, 33.3% - rural) in 2002.

The Internet connection rates have constantly fallen since 1999, due to decreasing prices for telecommunication services for Beltelecom. Nevertheless, lease payments for Internet providers remain high relative to the prices Beltelecom charges some groups of final consumers[12]. The Ministry of Communication and Informatization provides Internet service discounts to some Internet providers for scientific and educational organizations. Moreover, as Beltelecom owns most of the cable infrastructure, the terms for switched Internet access and dedicated line connection services are determined by Beltelecom. The only company that is allowed to lease external Internet channels to other providers is the Joint Venture Business Network[13].

As the vast majority of investment decisions and the introduction of new technologies in telecommunications are made by the Ministry of Communication and Informatization and implemented by Beltelecom, the already high level of monopolization in the sector is increasing. The introduction of IP-telephony (transport of telephone calls over the Internet) threatened Beltelecom's monopoly in the field of international calls, by making it possible to bypass Beltelecom's international lines. In response, the Ministry of Communication and Informatization forbade commercial providers to provide IP-telephony services. Because of this protectionist policy, the tariffs for international calls did not decrease substantially, which allowed Beltelecom to maintain a high level of cross-subsidization in the fixed-line segment.

Despite the significant government interference in Beltelecom's operations and despite the state requiring that it engage in undoubtedly unprofitable but socially significant investment projects, the company as a whole has proved to be profitable, although the profitability level for services is a bit below the industry average (Table 1).

Table 1
Profitability of telecommunication services, %, 2000–2004

	2000	2001	2002	2003	2004
Beltelecom	18.4	5.6	12.9	13.5	–
Telecommunications – total	23.6	12.3	17.0	13.5	23.0

Source: Beltelecom Annual Reports and Ministry of Statistics and Analysis.

As Beltelecom's primary focus is on the fixed-line segment, about 60% of the company's total revenues constitute charges for international and long-distance calls, while city and rural telephone calls count for only 30% and 4%, respectively.

2.3.2. Progress in 2004

The share of state ownership in the sector of telecommunication increased in 2004. Tenders for issuing a license to a third GSM operator were announced on June 30, 2004. Initially, it was planned to create the third GSM operator with a majority stake belonging to the state. Several companies applied for the license. Then the selection process was extended for one more month in September. However, later on the tendering procedure was abolished, with the government ordering the creation of a state-owned GSM operator that will be required to execute social projects. A fully state-owned mobile phone operator, Belarusian Network of Telecommunications (BNT), was created on November 9, 2004. 25% of the BNT stock belongs to Beltelecom. The rest is owned by the state enterprise Agat. The shareholding is final and is not subject to amendments. Currently, it is planned that BNT will provide mobile communication for low-income households and in rural areas. It can be anticipated that this will be used to justify significant competition-distorting privileges to BNT.

[12] A discount rate of 0.8 applies to the President's administration, the Council of Ministers, the National Assembly, as well as state enterprises and organizations.

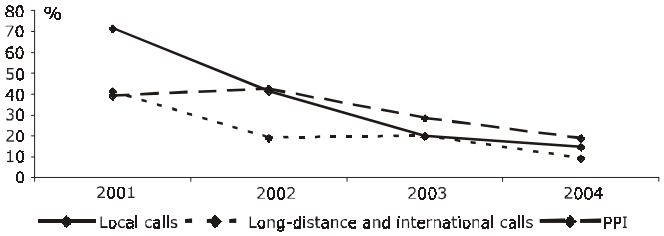
[13] 40% of the Business Network shares belong to Beltelecom.

Increasing government interference that reduces regulation transparency (tendering policies) significantly hampers telecommunication market development and sends the wrong messages to operating companies. After the Russian company Mobile TeleSystems (MTS) entered the market, price competition in this segment increased. There were a number of new tariff plans developed for customers in different price ranges by both GSM-operators, the joint venture Mobile Digital Communications Ltd. (MDC), set up in 1999, and MTS. As a result, the customer base for both companies increased to more than 2 million subscribers by the end of 2004. Decreasing charges for mobile services attracted households who did not have stationary phones and could not expect to have them installed in the near future. Thus, mobile phone companies essentially began to compete with Beltelecom's fixed lines for customers. However, BNT entering the market is likely to change the situation by increasing unfair competition. BNT is expected to be heavily supported by the state. Preferences are planned in the form of reduced VAT payments and customs duties on imported equipment for network construction. Foreign loans will also be attracted using state guaranties. A company supplying equipment will be chosen by tender; however, it is expected that Agat (the majority BNT owner) will produce some of the required equipment.

The government continued to maintain its positions on the mobile phone market in 2004. The Russian company MTS failed to obtain majority ownership in the Belarusian company MTS. 51% of MTS shares belong to Beltelecom and are not subject to sale. Samauwi Brothers Telecom (SB Telecom), one of the founders of MDC, lost its controlling shareholding (49% stock at present). The last mobile phone company BelSel is also under redistribution of its shares, which will lead to restitution of the initial state shareholding (state-owned companies had a 50% share in BelSel prior to mid-2002). The Dutch company CIB B.V. had 50% of shares, and the remaining shares were distributed between Beltelecom (33%) and Infobank (17%) in 2004[14].

The fixed telephony sub-sector did not see any changes during 2004. Tariffs for local city calls increased by 15.1% yoy, while long-distance call rates went up by 11.5% yoy. In reality, the tariff increases reflect inflation and not any decrease in cross-subsidization due to the higher charges to privileged customers (Figure 5).

Figure 5
Annual growth of telecommunication tariffs for legal entities and PPI



Note. Indices, eop.
Source: Own calculation based on the data of the Ministry of Statistics and Analysis.

[14] During the preparation of this report the majority shareholding in BelSel was transferred to state-owned companies.

Regional telecom companies and several other enterprises including Minsk City Telephone Network and Long Distance Communication became Beltelecom branches in August 2004. All these companies were subordinated to Beltelecom before 2004, though they were organizationally separate units. These are clear signs that the already high level of centralization is increasing.

2.3.3. Reform agenda

The necessity to liberalize the telecommunications sector has been recognized since at least 1999, though no real changes have taken place and the situation has not advanced significantly since then. Beltelecom's corporatization and privatization should be commenced to reduce the state's monopoly in the sector (it is currently planned for 2007). However, to enhance Beltelecom's efficiency, separation and privatization of its non-core businesses is also needed.

There is a danger that even after being privatized, Beltelecom would preserve its monopoly rights of providing long-distance and international calls. Thus, it is vital to provide private companies with access to these segments to foster price competition and ensure a dynamic development of the sector.

Telecommunication enterprises should pursue profitability and operational efficiency goals and provide social benefits only if these are directly compensated from the state coffers. Cross-subsidization between local and international calls should be eliminated. Privileges to selected households should be provided via direct income subsidization. The government should not effectively ban the access of private companies to the telecommunication market.

The Law "On Telecommunications", which is currently being drafted, needs to be enacted as soon as possible. It should include the establishment of an independent regulator. The law should also define the extent of permissible state regulation in the field of telecommunications. The independent regulator should shield market participants from political intervention in order to ensure long-term market stability and a level playing field. The regulator should also ensure market discipline while protecting consumer interests and facilitating open access to the core infrastructure of the network. The independence of such a body from direct political intervention has often been cited as means of building trust among investors in newly liberalized and privatized sectors.

2.4.Gas

2.4.1. Reforms in 2004

In 2004 the Belarusian gas sector demonstrated little progress in structural reforms, however at the beginning of the year the sector faced serious problems with gas imports from Russia and accordingly with gas supplies to households and industrial users.

By the end of 2003 Beltransgaz and Gazprom had failed to set up a joint venture based on Beltransgaz. As a result, for the first time in five years the two countries did not sign a common energy agreement. Neither the prices nor the volumes of the gas supply were agreed upon. Nor was a contract signed for transiting Russian gas through Belarusian pipelines[15]. As a result, gas was supplied by independent Russian companies at a higher price for the first half year, based on short-term contracts, which often did not cover current consumption.

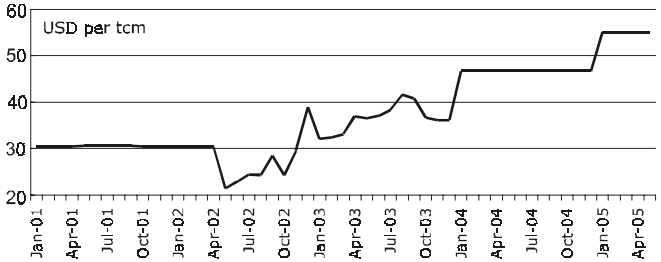
By mid-February, Gazprom completely stopped the gas supply to Belarus, including transit gas to Europe, since Belarus had started unauthorized gas usage. The pres-

[15] Russian gas was being transported to European countries, but Gazprom did not pay for the transit.

sure in the pipelines dropped by almost 50%, which created an emergency situation. Shortly after the supply was resumed, but the strategic relationship between Beltransgaz and Gazprom suffered and no long-term contract on gas supply was signed.

In June, when the independent suppliers had almost exhausted their quotas for exporting gas to Belarus, a contract to deliver gas to Belarus for 2004 was finally signed[16]. This contract provided for a 30% higher price than in 2003. The transit price through the Beltransgaz pipeline was raised to USD 0.75 per tcm of gas per 100 km (24% higher than in 2003), but the price was not raised for transit through the Yamal-Europe pipeline[17] (USD 0.46 in 2003 and 2004). The development of the average price for gas imported from Russia since 2001 is presented in Figure 6. Russia decided to provide Belarus with a USD 175 m state loan for 5 years (at the Libor rate plus 0.8%) to compensate for the higher gas prices in 2004.[18] The first repayment is due in two years.

Figure 6
The development of prices for imported gas from Russia, 2001–2005



Note. Including VAT in 2005 (see footnote 19).
Source: Ministry of Statistics and Analysis.

As a result of not meeting the previous agreements concerning Beltransgaz' privatization, the contract for gas supply and transit gas to Belarus for 2005 was singed only on December 30. According to this contract, the real price will be higher than in 2004 (18% VAT was added[19]). Belarus will receive 19.1 bcm and 1.4 bcm more gas if Gazprom's technical ability allows. The transit tariff remained unchanged (USD 0.75 for transit of tcm per 100 km through the pipeline owned by Beltransgaz, and USD 0.46 for transit through the Yamal-Europe pipeline).

During 2004 the government succeeded in stiffening the payment discipline (see Table 2).

[16] In 2004 Belarus imported 20.5 bcm of gas for domestic consumption, which is 9% more than in 2003. Gas transit amounted to 35.3 bcm (6.6% higher) of which 23.5 bcm were transported through the "Yamal-Europe" pipeline (in 2003 b 21.8 bcm).
[17] Compared to last year, Belarus had to pay to Gazprom an additional USD 170 m approximately. In turn, Gazprom paid about USD 45 m more for gas transit than in 2003.
[18] The loan was received in December. Out of the total amount of the loan, USD 25 m was returned to Russia to pay off earlier loans. The balance was included in the 2004 central budget.
[19] Since January 1, 2005, the economies of Belarus and Russia switched to a regime of indirect tax payments based on the country of destination. The Belarusian side tried to insist on subtraction of the tax from the price but failed.

Table 2
Structure of Beltransgaz payments for gas imported to Belarus

	2001	2002	2003	2004
Total value of gas supplied, USD m	505.3	426.7	619.7	903.0
Payment rate, % of the total value of gas supplied (including previous debts)	86.7	119.4	102.2	101.3
Payments in cash, %	19.9	47.0	74.1	87.5
Non-cash component, %	80.1	53.0	25.9	12.5

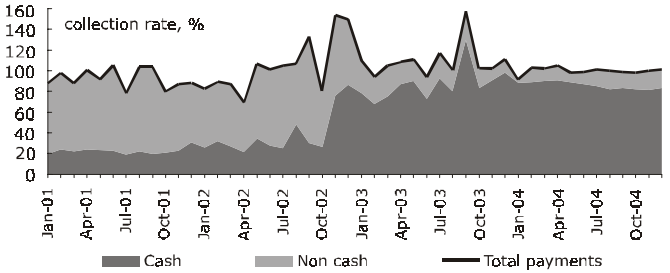
Source: Ministry of Energy.

As a result, Beltransgaz fully paid for current consumption, the level of payment amounting to 101.3%. The current external gas debt of USD 113.68 m to Russia was liquidated (Table 3). However, previously restructured debts of USD 52 m remain to be paid. Nevertheless, the overall payment discipline for imported gas has improved.

In order to eliminate barter, the use of bills of exchange was banned in 2004. However, one exemption was made for the Ministry of Finance, which was allowed to issue bills for USD 48 m, as payment of Beltransgaz debts to the Russian company ITERA.[20]

The administrative measures, the tougher norms for using barter, and the requirement for 100% payment for consumed gas, enacted in 2003, continued to considerably improve the payment discipline of all final consumers (Figure 7). On average, the collection rate from final consumers rose to 100.6%. However, the government's goal of stopping all non-monetary schemes was not achieved, as the share of non-cash payments was still 83% in 2004.

Figure 7
Payments for gas by final consumers and cash payment percentages in 2001–2004



Source: Ministry of Energy.

[20] Resolution of the Council of Ministers No. 135, February 6, 2004.

Table 3
Arrears for gas, USD m

	As of January 1, 2002	As of January 1, 2003	As of January 1, 2004	As of January 1, 2005
Total, including	925.50	874.11	708.16	248.66
Arrears of domestic consumers	742.66	774.63	594.48	247.51
External consumers	182.84	99.48	113.68	–

Source: Ministry of Statistics and Analysis.

The conditions of access to the Beltransgaz network by third parties were clarified in 2004. In March 2004 Resolution No. 73 established a tariff for gas transport via the Beltransgaz pipeline .[21] This represents progress towards openness and fairness of operations. However in practice, only very few companies can potentially benefit, since the trunk lines of Beltransgaz carry only high pressure gas, which can only be reduced at the gas distribution stations of the Beltopgaz system.[22] The price for access to the low-pressure network of Beltopgaz by third parties was set at USD 6.9 per tcm (without VAT) on April 1, 2004.[23] Although it is a considerable achievement to have the tariffs for gas transport clearly defined now, numerous administrative barriers to network access by third parties remain.

On January 28, 2004 the Ministry of Economy set the domestic gas prices, which are effective after January 1, 2004. Most enterprises (including electricity, agriculture, etc.) had to pay a 24 % higher price than in 2003 (USD 67 per tcm). At the same time, some preferential prices were kept.

At the end of 2004 gas tariffs for households had increased by only 3.9%, while the imported gas price had increased by 30% and the inflation rate was 14.5%. This led to a slight decrease in cost recovery and a return to cross-subsidization. The situation was made worse by maintaining the cross-subsidization for condensed gas. In sum, the general cost recovery for gas consumed by households in 2004 amounted to 90.3% (109% for natural gas and 70% for condensed gas)[24] .

2.4.2. Reform agenda

One the one hand, the crucial importance of gas for the Belarusian economy requires having stable and affordable gas prices and a secure gas supply. On the other hand, the need for investments in infrastructure and equipment should – at least partially – be financed by private investors, since public funds are limited and are also needed for investments in the social sphere such as health care, education, etc. Hence, gas industry policy should be directed towards sustainable, profit-oriented development[25]. Regulatory policy should provide incentives for increasing efficiency in the gas sector and creating attractive investment opportunities for the private sector. In this regard the following steps could be taken:

[21] USD 8.14 per tcm independent of distance. Resolution of the Ministry of Economy No. 73, March 22, 2004.
[22] At present Beltransgaz sells gas only to the Beresovskaya power station and to Beltopgaz.
[23] Resolution of the Ministry of Economy No. 74, March 22, 2004.
[24] In 2003 the general cost recovery amounted to 99.9% (126% for natural gas and 75.6% for condensed gas).
[25] For more detailed suggestions for reforms in gas sector see RC IPM-GET Policy Paper 15/04 Gas Sector Restructuring in Belarus: Necessity and Directions, http://ipm.by/e-publ/pp.

A. Price reform

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

- Tariffs for final consumers must become cost-reflective for households and for industries without allowing for cross-subsidization;
- If providing social privileges to some groups of households remains a priority of the government, is should be dealt with in a transparent manner with the help of targeted aid or better via direct income subsidization;
- Costs should account for investment needs; and
- The prices for all industrial consumers should be equal.

Simultaneously, efforts to improve payment discipline must be continued without any exceptions with all groups of consumers, using economic as well as administrative measures.

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

B. Restructuring and corporatizing enterprises within the Beltopgaz system

Beltopgaz and Beltransgaz still need significant restructuring. Both enterprises are overburdened with non-productive assets, and (although in part already officially corporatized) they are not free to make financial and investment decisions. Restructuring and corporatization also includes the necessity and the possibility to divest all ancillary enterprises that are not related to the core business.

To avoid cross-subsidization between different activities within a single firm (a particularly severe impediment for the development of competition between different activities), full corporatization must include a strict separation (unbundling) of network operations and gas supply (retail) activities within each company, and for the case of Beltransgaz also a separation into international transit and domestic transmission. Furthermore, in order to ensure creditworthiness, all companies should provide a sufficient degree of transparency, e.g. through regular independent audits according to international standards.

C. Regulation for the networks, competition for the rest

In order to avoid excessive interference, the sector needs a regulator that is independent of both the gas business and the government. This body should define the rules of the game, and consider the interests of all groups involved. Among its first actions, the regulator should make changes to the tariff policy that will bring more competition into the sector.

First of all, the regulator needs to set tariffs and rules for access to the high-pressure network. This would allow not only the network operator (Beltransgaz) 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, as these 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.). Companies with 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 the possibilities for cross-subsidization, and having independent audits will identify those operative decisions that do not contribute to the goal of profit maximization.

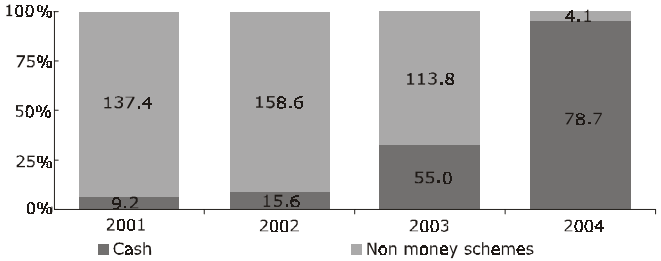
2.5. Electricity

2.5.1. Reforms in 2004

Prior to 2004, about 70% of the Belarusian electricity needs were satisfied by domestic power generators and about 30% by foreign generators (Russian and Lithuanian). Modernization of the Berezovskaya and Lukoml power stations made it possible to increase the capacity of the domestic electricity output by 5%. In February 2004, Belarus stopped importing electricity from Russia due to price increases. As a result, local generation grew by 17.3% yoy[26], which was achieved mainly by burning additional volumes of Russian gas. In August 2004, imports of Russian electricity were resumed at USD 0.0203 per kWh. According to the 2005 contract with RAO UES of Russia, signed in December 2004, Belarus will import 5.5 bn kWh at USD 0.0203 per kWh.[27]

The structure of payments for imported electricity changed in 2004. The payment discipline improved[28], non-monetary schemes were terminated (Figure 8), and Belarus' foreign debt reduced. The payment collection rate reached 118.5% in 2004. The existing debt for previous deliveries was reduced by USD 26.27 m to USD 2.86 m (Table 4).

Figure 8
The amount (USD m) and structure (%) of payments for electricity imported into Belarus



Source: Ministry of Energy.

Table 4
Debts for electricity consumption

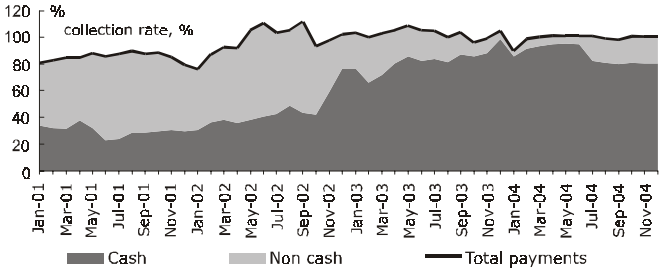
	As of January 1, 2002	As of January 1, 2003	As of January 1, 2004	As of January 1, 2005
Total, including	838.29	812.6	721.38	331.48
Domestic consumers	750.70	758.59	692.25	328.62
Foreign consumers	87.59	54.01	29.13	2.86

Source: Ministry of Statistics and Analysis.

[26] According to the Ministry of Energy 34.2 bn kWh were consumed in 2004, of which 4.1 bn kWh were imported.
[27] The fact that approximately 50% of all electricity produced in Belarus is generated in combined heating and power plants (CHP) makes importing electricity a reasonable choice, as Russian electricity is cheaper in the summer, allowing the CHP plants to be repaired at that time.
[28] During 2004 imported electricity was paid for completely.

Government policies to make the sector more transparent were extended to the domestic market. The strengthening of the payment discipline and attempts to reduce barter within Belarus were continued in 2004. As a result, the collection rate for electricity paid by final consumers amounted 100.5% on average (see Figure 9). However, many enterprises were not able to operate under these stricter conditions. As a result, in 2004 the energy tariff markups for payments in non-cash form were reduced from 23% to 15%[29]. Also, a number of enterprises received one-time exemptions. Even though payments for electricity improved in general, there were still 400 cases in 2004 of electricity being cut off to industrial consumers for non-payment.

Figure 9
Payments for electricity by final consumers and cash payment percentages in 2001–2004



Source: Ministry of Energy.

A decree of the Council of Ministers[30] specified a non-cash payment ceiling range of 5–10% in order to significantly reduce non-cash payments. Thus, all enterprises were obliged to pay in full for their current consumption and discontinue non-cash payments. As a result, the payment collection level reached 100–102% by the end of 2004, which is a significant improvement compared with 80% in 2001–2002. However, some consumers, primarily the enterprises of the Ministry of Agriculture and Food, did not manage to meet these requirements. That is why the goal of 100% payment in cash was not achieved and, on average, amounted to only 80.3%.

A decree of the Council of Ministers[31] introduced targets for the repayment of past debts for natural gas, electricity and heat in equal parts during 2004. The decree was mandatory for the enterprises of all ministries and agencies, with the exception of the enterprises of the Ministry of Agriculture and Food. The biggest debtors are the enterprises of the Ministry of Industry (28% of the total arrears as of January 1, 2004 were to be repaid in 2004) and the enterprises of the Ministry of Construction and Architecture (18% of the total debt as of January 1, 2004 had to be repaid in 2004). The state introduced a 'manager incentive' scheme within these indebted enterprises. However, managers were also charged with personal responsibility for debt repayments, some enterprises did not meet these requirements.

[29] Resolution of the Council of Ministers No. 257 of March 11, 2004.
[30] Resolution of the Council of Ministers "On minimum cash payment requirements and non-cash payment ceilings for natural gas, electricity and heat consumption in 2003", No. 234 of March 24, 2003.
[31] Resolution of the Council of Ministers No. 280 of March 15, 2004.

The electricity prices for industry for 2004 were increased by 21% in January, when they were fixed at the level of US cents 6.02 per kWh. At the same time, some preferential pricing persisted. The lists of the enterprises eligible for reduced tariffs were occasionally amended to include those that managed to prove a need for reduced tariffs. In 2004 these lists included the Belarusian metallurgical plants, Svetlogorsk PO Khimvolokno, Grodno PO Khimvolokno, Grodno-Azot Inc., Minsk Bearing plant Inc., JSC Beltransgaz and its affiliates, and also some enterprises of the Beltopgaz concern.

Besides, some enterprises (e.g. those participating in state targeted programs, priority exporters and others) benefited from specific privileges such as tariff discounts for certain periods of time. According to government decrees[32], industrial consumers that had financial problems were granted a 2 to 3 year delay to repay their debts for electricity consumption. To be eligible the enterprises had to pay for their current 2004 consumption in full.[33] However, preferential tariffs do not always help to bring an enterprise out of a crisis, nor is an eventual settlement of all arrears insured.

Electricity tariffs for households during 2004 were not revised but only indexed, which led to an increase of 6.9% yoy (in current prices). As a result, cost coverage fell from 108% at the beginning of the year to 94% by the end. However, over most of the year tariffs were maintained at levels that covered average costs.

Table 5
Electricity production costs and prices for different groups of consumers, US cents per 1 kWh

	As of January 2000	As of January 2001	As of January 2002	As of January 2003	As of January 2004	As of January 2005
Costs	2.60	2.53	2.02	2.32	3.21	3.5
Prices for:						
State financed organizations	3.50	3.39	3.39	3.00	4.02	4.02
Industry	4.30	4.15	4.15	4.41	6.02	6.02
Households	1.20	1.26	1.19	2.39	3.32	3.45
Utility services	3.58	3.53	3.39	2.44	2.66	2.66
Other enterprises	4.30	3.39	4.15	4.41	6.02	6.02

Source: Ministry of Energy.

Efforts to increase the use of domestic energy were intensified in 2004. A government resolution[34] requires that by 2012 not less than 25% of the electricity and heat produced in Belarus must be produced within the country using local and alternative energy resources.

2.5.2. Reform agenda

The great dependency on Russian gas and its forecast price growth require urgent measures to prevent sharply escalating electricity costs. Modernizing some of the power plants so they can use domestic/renewable energy sources is useful, but can only provide a partial solution.

[32] Resolution of the Council of Ministers No. 388 of April 11, 2004; Resolution of the Council of Ministers No. 1063 of September 1, 2004; Presidential Edict No. 138 of March 19, 2004.
[33] Examples of such enterprises are 13 peat briquette producing enterprises of the concern Beltopgaz, the Molodechno radio-plant Sputnik, and others.
[34] Resolution of the Council of Ministers No. 1680 of December 30, 2004.

Although tariffs cover average costs, the tariff policy should be changed. Industrial tariffs too high (above cost) due to cross-subsidization, privileged pricing for some industrial consumers, debts, etc., while tariffs for households are below cost. The policy of eliminating cross-subsidies has been inconsistent and incomplete, and a complete elimination of household cross-subsidization was not achieved. Subsidized energy prices for other groups, mostly industrial and agricultural enterprises remains an issue. Moreover, tariff policy vis-a-vis privileged industrial enterprises remains unpredictable and subject to political influence. Tariff eligibility criteria are often vague, leading to misallocations of resources, rent seeking and inconsistent information for future planning. All this creates numerous distortions.

Furthermore, electricity tariffs are low by international standards and also very likely below their LRMC (long-run marginal costs[35]). Hence, the electricity sector operates inefficiently with large deferred investments. There is no ground to further reduce profits of energy enterprises. Besides, the existing cost plus practice of tariff formation does not provide adequate cost-cutting incentives to the energy sector.

At this time the following measures are needed to enable the electricity sector to provide the desired outcomes:

- Tariffs should be set at cost-reflecting levels without permitting cross-subsidization, and at equal levels for all consumers without any price privileges;
- If providing social privileges to some groups of households remains a priority of the government, is should be dealt with in a transparent manner with the help of targeted aid or better via direct income subsidization;
- An independent regulator that creates incentives for cost cutting should be established. The system should be transformed from a centrally planned one into a self-developing market, where the state only guarantees that no single market actor or the state itself abuse market power;
- The policy of further and stricter hard budget constraints for consumers should be continued. It is therefore reasonable to permit non-paying consumers, including public utilities etc., to be disconnected;
- Guaranteed third party access to the transport and distribution networks should be gradually opened on a clear non-discriminatory basis;
- Corporatization and restructuring of all regional branches of the concern Belenergo (oblenergos) and of all ancillary businesses should gradually start. This would make it possible to reduce the current 'politically fixed costs'[36] and increase management's motivation to cut costs.

Once these steps have been taken, the government will be in a position to address the next important issue, i.e. to increase efficiency within the sector (lowering costs). International experience shows several ways of improving efficiency within the sector through increasing competition and changes in motivating management (e.g. systems of Pool or Bilateral contracts).

[35] For more detailed information on reforms in the electricity sector see RC IPM-GET Policy Paper 03/05 Reforms in the Belarusian electricity sector: How to reduce costs and dependence on imported resources, http://ipm.by/e-publ/pp.
[36] We call some costs 'politically fixed', because they could be reduced if it was politically possible. For example, 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.

Appendix 1

General description of the infrastructure indicators

This appendix presents a brief description of the criteria for scoring each indicator on a scale of 1 to 4.

1. Commercialization and privatization

1.1 Ownership

1.1.1 Natural monopoly. A natural monopoly is a network operator. A score of one means that the whole network is state owned; the score increases with an increasing share of corporatized, privatized and newly constructed private fixed networks in the total length of networks. The maximum score 4.0 is reached with private ownership of all networks.

1.1.2 Potentially competitive business. A potentially competitive business is an operator using networks to provide its services; it is a market related to a natural monopoly. A score of one implies that the businesses are part of the state owned natural monopoly. The score increases with separation, corporatization and privatization of existing operators, or with increased market penetration by newly established private agents. The maximum is reached when all the businesses are in private ownership.

1.1.3 Ancillary business. Ancillary businesses are concerned with network construction, its maintenance, inputs supplies, and social infrastructure. A score of one means that these businesses are state owned. The score increases with the degree of separation, corporatization and privatization, or with increases in new private establishments.

1.2 Operation

1.2.1 Natural monopoly. A score of one is given when the natural monopoly is operated as a government department. The score increases with reorganization into an independent state agency or a company and establishment of an independent regulator. The maximum score is assigned if a private company manages the natural monopoly, subject only to an independent regulator, established by law.

1.2.2 Natural monopoly planning and investment decisions. A score of one implies political interference in business and investment decisions. The score increases as commercial objectives such as profitability and operational efficiency grow in importance. The highest score applies if network extensions and new investment projects are realized solely based on profitability considerations and reflect marginal social costs.

1.2.3 Private sector participation in service contracts. A score of one means that the private sector does not participate in construction, maintenance or rehabilitation, etc. The score increases with increasing participation in these activities by the private sector.

1.3 Organizational structure

1.3.1 Separation of natural monopoly and potentially competitive businesses. A score of one means separation neither between the infrastructure and the service providers' managements, nor between the managements of different service providers. The score increases with unbundling of the industry. The highest score applies when different services are provided by separate private companies.

1.3.2 Separation of ancillary businesses. A score of one means no separation of ancillary businesses from the natural monopoly or potentially competitive businesses. The score increases with increasing degrees of separation. The maximum score is assigned when ancillary services for the natural monopoly and for potentially competitive businesses are supplied by the market.

1.3.3 Decentralization. A score of one implies no or minimal decentralization and increases with increasing decentralization. Decentralization is both regional and functional and implies autonomy of decision making at the regional level concerning tariffs and investments. The highest score is assigned when the industry is divided into competing regional operators.

2. Tariff reform

2.1 Structure of tariffs

2.1.1 Political vs. regulated operators. A score of one implies strong political interference in tariff setting. The score increases with declining political interference and its transfer from the central government to the corresponding government agency and finally to the regulatory body. The maximum score is reached for full cost reflective tariff setting by an infrastructure operator regulated by an independent regulator.

2.1.2 Natural monopoly pricing. A score of one corresponds to pricing below cost accompanied by a substantial amount of cross-subsidization. The score increases as the tariff approaches the long-run marginal cost reflecting cost covering levels, with cross-subsidization declining.

2.1.3 Potentially competitive businesses pricing. A score of one means a lack of cost reflective pricing. The score increases with markets becoming increasingly competitive and prices approaching market equilibrium levels.

2.2 Payments

2.2.1 Intra-industry payment ratios. A score of one implies that arrears are constantly accumulating and transactions between companies within an industry are basically non-monetary. The score increases as monetary settlements are carried out and arrears approach zero.

2.2.2 Final consumer collection rates. A score of one means low revenue collection from final consumers (households, companies, state organizations) and constantly accumulating arrears. The score increases as progress with revenue collection is made and services are fully paid for.

2.2.3 State indebtedness. A score of one corresponds to growing arrears for state compensations to privileged consumers. The score increases as this indebtedness is reduced zero.

2.3 State funding

2.3.1 Subsidies level. A score of one means that some groups of consumers are heavily subsidized by the state in an explicit or implicit form. Both the depth of the subsidization and the distribution of subsidies are important. The government may pursue a constant practice of debt forgiving and restructuring. Abstention from implicit and explicit subsidies leads to improved scores.

2.3.2 Subsidies procedure. A score of one is assigned when the subsidies are directed to service suppliers and are provided in non-transparent ways. The score improves as the process becomes more transparent and income compensations replace price compensations.

3. Regulatory and institutional development

3.1 Effective regulatory institutions

3.1.1 Management selection of competitive businesses. A score of one means that the management is appointed by state officials. The score increases when the management is elected by shareholders and reaches its maximum when the shareholders are private companies or individuals.

3.1.2 Independence of regulator, insulation from political influence. A score of one is assigned when a government department provides the service. The score increases as a state commission is introduced and an independent regulator is established. The highest score applies when an independent regulator acts according to law.

3.1.3 Transparency of regulation. A score of one implies an absence of legislation defining clear rules of the game for businesses, and the obligations of government bodies. The score increases with the development of legislation and its enforcement, including when the decision-making becomes public. The maximum score is reached when the performance of natural monopolies in an industry is regulated only by an independent regulator in accordance with law, and all decisions are disclosed.

3.2 Access regulation. A score of one means that the access right is arbitrarily determined by the state or the state-owned operator. The score increases as access is regulated by an independent regulator, later negotiated, and finally determined by market mechanisms.

Appendix 2

Explanations for the infrastructure indicator evaluations

RAILWAYS

1. Commercialization and privatization

1.1 Ownership

1.1.1 The basic rail network is 100% state owned. Spur lines linking enterprises to the basic network are owned by the enterprises. 2004: 1.3.

1.1.2 Passenger and freight transportation is 100% state owned. However, companies belonging to Belarusian Railways are separated and are independent legal entities. One of the forwarding companies is a joint venture between BR and a Swiss company. 2004: 1.3.

1.1.3 All ancillary businesses are state owned and constitute a part of Belarusian Railways, though they are divided into separated legal entities. 2004: 1.3.

1.2 Operation

1.2.1 According to law, Belarusian Railways is a state holding not directly regulated by the government. The law prohibits government interference in the corporate decision-making process. However, this is often not the case. 2004: 1.7.

1.2.2 According to the statute of the Belarusian Railways the primary objective is to satisfy the transportation services needs of producers and the general public. Achieving profitability is secondary to the primary objective. There is also a certain amount of state interference in business and investment decisions. 2004: 2.0.

1.2.3 There is private sector participation in service contracts. The tendering procedure is quite transparent including posting of announcements on the internet. Nevertheless the scale of outsourcing has not reached satisfactory levels. 2004: 1.7.

1.3 Organizational structure

1.3.1 No separation of potentially competitive businesses from the natural monopoly operator has taken place so far. 2004: 1.0.

1.3.2 Ancillary businesses are independent legal entities within the structure of the Belarusian Railways. The share of non-core businesses in the structure of Belarusian Railways is very high (about 25% if measured by employment levels). 2004: 1.3.

1.3.3 The Belarusian Railways consist of 6 regional companies. Altogether the company unites 99 legal entities. 2004: 2.0.

2. Tariff reform

2.1 Structure of tariffs

2.1.1 Tariffs on internal transportation services are set independently from the railways by the Ministry of Economy. They are set according to international agreements. However, there is strong political influence on the domestic tariff setting process, as these tariffs are believed to affect the standard of living in the country. 2004: 1.7.

2.1.2 According to law, the tariffs should cover the cost of the service provided and allow for future development of the railway network. There is a considerable amount of cross-subsidization especially concerning suburban transportation (diesel and electric trains). From 2001 to 2003 tariffs for

suburban transportation, grew faster than those for other kinds of passenger transport, and also freight transportation. But in 2004 they increased by only a little bit more than the average (20% compared to 6–26%). 2004: 1.7.

2.1.3 Belarusian Railways constantly makes profits (the rate of return was 15.4% in 2004). Due to the distorted structure of tariffs, however, the amount of cross-subsidization is still very high. 2004: 1.7.

2.2 Payments

2.2.1 A certain amount of indebtedness between different enterprises within Belarusian Railways exists. 2004: 2.0.

2.2.2 Revenue collection for passenger transportation is 100%. A large percentage of consumers have privileges, especially on suburban transport. Free rider practices on suburban transport are common. Starting on January 1, 2005 privileged consumers have to acquire free tickets to be able to board a train. Many firms using freight transportation services are constantly indebted to Belarusian Railways. 2004: 2.0.

2.2.3 The government does not cover the losses of Belarusian Railways caused by the providing privileged consumers with service. 2004: 1.0.

2.3 State funding

2.3.1 Some groups of consumers, especially users of suburban and intercity trains, are subsidized at the expense of enterprises that deliver their goods via railway. Coverage by the state of the losses resulting from the provision of services to privileged consumers is low. 2004: 1.0.

2.3.2 According to law the government is obliged to cover all railway expenses, which are incurred as a result of providing privileges to certain categories of consumers. In practice the procedure of price compensation is not disclosed. 2004: 1.0.

3. Regulatory and institutional development

3.1 Effective regulatory institutions

3.1.1 The CEO of Belarusian Railways is appointed directly by the President. His deputies are appointed by the Council of Ministers. 2004: 1.3.

3.1.2 Belarusian Railways is operated as an independent state owned holding. The state administration has no right to intervene in specific activities of the company. This often turns out not to be the case in practice. 2004: 1.3.

3.1.3 The rules governing the Belarusian Railway operations are clearly defined in a number of legislative documents. Yet the decision-making processes have never been open to public scrutiny. 2004: 1.7.

3.2 Access regulation. Access of outside firms to the market is not possible. 2004: 1.0.

ROADS

1. Commercialization and privatization

1.1 Ownership

1.1.1 Roads are 100% in state and communal ownership. 2004: 1.0.

1.1.2 State transportation enterprises are separated into independent legal entities, each of which operates within a certain region. Private urban transportation is highly developed in some towns, reaching 50% market share. There is

some evidence that the market share of private passenger transportation firms decreased by several percentage points in 2004. In some cities such as Minsk and Gomel, state service providers started operating express routes with mini-buses, which was formerly only done by private providers. In Minsk, 200 vehicles of a private provider became state property. Private freight transportation enterprises and individual entrepreneurs provide about 80% of all services. The indicator fell from 2.0 in 2003 to 1.7 in 2004.

1.1.3 Ancillary businesses are state owned. All of them are independent legal entities separated from the road management and approximately 19% are corporatized. 2004: 1.7.

1.2 Operation

1.2.1 The natural monopoly operator Belavtodor operates as a government agency, i.e. as part of the Ministry of Transport and Communications. 2004: 1.3.

1.2.2 There is political interference by the state administration including local offices in the business and investment decisions of state owned firms. 2004: 1.3.

1.2.3 Road construction and maintenance is provided by state owned firms, 19% of which are corporatized. There is some private sector participation in service contracts through tenders. Yet the scale of outsourcing has not reached satisfactory levels. 2004: 1.7.

1.3 Organizational structure

1.3.1 The road management is completely separated from the freight and passenger transportation services. 2004: 3.0.

1.3.2 Road construction and maintenance are separated from the natural monopoly operators. Cooperation between them is based on tendering procedures. 2004: 2.0.

1.3.3 The natural monopoly operators are divided into regional monopolies, although these monopolies are heavily regulated by the central and local administrations. 2004: 1.7.

2. Tariff reform

2.1 Structure of tariffs

2.1.1 Although tariffs are politically determined, state owned firms have some freedom in setting their own tariffs. This happens in towns where the competition with private contractors is stronger and the tariffs charged by state owned firms are lower. Investment decisions are greatly influenced by the state administration. 2004: 2.0.

2.1.2 According to state legislation, road funding should derive from contributions, which are applied to the price of all products and paid by producers, and other payments such as the tax on fuel. Also, user fees are levied on truck companies depending on the distances of travel and on the parameters of each truck. There is one state owned toll road (M1/E30 Brest – Minsk – Russian Federation border), but its revenues do not cover the operational costs for this road, even though tolls were instituted in 2004 for Belarusian light trucks which had previously been exempted. According to Belavtodor state financing reached only 37.2 % of the needed amount. 2004: 2.0.

2.1.3 The trucking and bus transportation markets are competitive, though competition in the urban transportation market is limited by strict permit requirements. Tariffs for passenger transportation services of state-owned enterprises are set by the Ministry of Economy, although the enterprises themselves have some freedom to change them. In 2004, the Ministry of Economy initiated

the adoption of regulations allowing oblast councils to set the maximum tariffs for private passenger transportation (except for Vitebks oblast). Private freight transportation companies are free to set their own tariffs. The indicator was decreased from 2.0 in 2003 to 1.7 2004.

2.2 Payments

2.2.1 A certain, but not a significantly large amount of indebtedness exists between ancillary services providers. 2004: 2.3.

2.2.2 Revenue collection for passenger transportation is close to 100%, though price compensation for serving privileged passengers remains an issue. Free rider practices in urban transport are also common. The ratio of revenues of public transport enterprises to their total costs continues to be low. 2004: 2.0.

2.2.3 State financing of road construction and repair fluctuates throughout the year; hence construction companies are forced to rely on commercial credits. In 2004 they had to acquire credits of BYR 110 bn (USD 50 m) in total. Public transportation companies received state funding with permanent delays as well. 2004: 2.0.

2.3 State funding

2.3.1 The government uses the cost-plus approach to cover loses of public transport firms instead of compensating them for the cost of providing services to privileged consumers, which would be in accordance with the law. According to preliminary data, losses of public transportation companies on urban and suburban routes not covered by state subsidies amounted to BYR 11.4 bn (USD 5.3 m). Private firms generally are not obliged to provide privileges. In 2004 the exception was the city of Gomel where private providers were asked by the city council to provide one free seat for veterans or handicapped persons. In many cases the prices charged by private firms resemble the prices of their public competitors (price discrimination). 2004: 1.3.

2.3.2 Subsidies are directed to the service providers in a non-transparent way. 2004: 1.3.

3. Regulatory and institutional development

3.1 Effective regulatory institutions

3.1.1 Management of all state owned companies is appointed by the state administration, either central or local. 2004: 2.0.

3.1.2 Belavtodor, the monopoly road operator is a department of the Ministry of Transport. Road maintenance companies and transportation companies are separate legal entities. 2004: 1.7.

3.1.3 The legislation provides clear rules of operation for the natural monopoly. However, the decision making process is not disclosed to the public. Decisions are highly politically influenced. 2004: 1.3.

3.2. Access regulation. Access is regulated by licensing. At the local level route tendering procedures are not transparent. The rules of assigning routes to the various contractors are not clearly stated and public control is lacking. The regulatory framework continued to be unfavorable to private truck companies (high duties on vehicle imports) as well as to urban transportation firms and entrepreneurs during 2004, which resulted in the exit of some of them from the market. The market share of private providers of passenger transportation services dropped from 12.3% in 2003 to 9.5% in 2004 . The amounts for different fees for bureaucratic procedures to be paid by private providers also increased. Compared with public firms they receive unequal treatment. Therefore the indicator was decreased from 2.0 in 2003 to 1.7 in 2004.

TELECOMMUNICATIONS

1 Commercialization and Privatization

1.1 Ownership

1.1.1 The cable infrastructure is primarily owned by Beltelecom. There was no change in the Beltelecom ownership structure. 2003 and 2004: 1.3.

1.1.2 Regional telecommunication enterprises, the Minsk city telephone network, and long-distance communications are branches of Beltelecom. Mobile phone operators are corporatized; however, the state has majority ownership in most of them. A third GSM operator was created in 2004. It is 100% state owned. Internet providers are privately owned, some of which have a state share, and competing with each other. 2003 and 2004: 2.0.

1.1.3 Some construction, infrastructure maintenance and other ancillary enterprises are state owned, others are private. Beltelecom is solely responsible for the maintenance of its networks. 2003 and 2004: 2.0.

1.2 Operation

1.2.1 Beltelecom is an independent financial unit. The Ministry of Communication and Informatization regulates the activities of Beltelecom. 2003 and 2004: 1.3.

1.2.2 Officially, Beltelecom's long-term goal is to increase its earnings and the profitability of its business. In reality, investment decisions cannot be made without approval of the Ministry of Communication and Informatization. Network extensions are a priority for Beltelecom to meet the government's goal of enhancing telephone access for low-income households and for remote areas. 2003 and 2004: 1.7.

1.2.3 The mobile phone network was developed by private operators. The private sector participates in service contracts and equipment supply through tenders. The state owned company Giprosvyas performs design work. As a rule, private enterprises supply equipment for telecommunications; however, they are rarely assigned service contracts. 2003 and 2004: 2.0.

1.3 Organizational structure

1.3.1 Only Beltelecom's hardware facilities can be employed for international traffic transfer. The network operation and phone user services are integrated. Beltelecom provides local, long-distance and international calls. Private companies provide mobile phone services, while long distance and international roaming to mobile operators belongs to Beltelecom. Beltelecom is the only primary Internet provider, while secondary Internet providers are mainly private companies that compete with Beltelecom for services. There were no changes in the organizational structure in 2004. The indicator maintained its 2003 level: 2.0.

1.3.2 Ancillary businesses are independent legal entities. Cooperation between them and Beltelecom is based on tendering procedures, some of which are announced via the Beltelecom website. 2003 and 2004: 2.3.

1.3.3 Regional companies were integrated into Beltelecom. Local, long-distance and international phone services are centralized. There are no competing regional operators in telecommunications. 2003: 1.7 and 2004: 1.3.

2 Tariff reform

2.1 Structure of tariffs

2.1.1 Beltelecom's tariff policy is under strong political influence. It is determined by state priorities. Tariffs on domestic phone calls are set by the Ministry of Economy. Rates on international phone calls and charges for fixed network customer

connections to the mobile networks are defined by Beltelecom. Internet tariffs and prices for mobile phone services are set by providers. 2003 and 2004: 2.7.

2.1.2 Local calls are subsidized by international calls. 2003 and 2004: 2.3.

2.1.3 Mobile and Internet provider charges are compatible and cover costs. Charges for mobile and Internet services are decreasing. 2003: 3.0. 2004: 3.3.

2.2 Payments

2.2.1 Telephone calls are normally paid for. A certain level of indebtedness still persists in telecommunications, however it is gradually decreasing. The indicator was increased from 3.0 in 2003 to 3.3 in 2004.

2.2.2 Households cover the costs of phone usage in full. In the case of non-payment they are disconnected. The arrears of legal entities are not significant and falling. The indicator was increased from 3.0 in 2003 to 3.3 in 2004.

2.2.3 The indebtedness level is low but is still not eliminated. 2003 and 2004: 3.3.

2.3 State funding

2.3.1 The below-cost tariffs for local phone calls and the provision of other services to privileged customers are covered by profits generated by other Beltelecom activities. Some debt restructuring has taken place in the sector. Telephones used by state enterprises are not disconnected for nonpayment. 2003 and 2004: 2.7.

2.3.2 State subsidies are not significant and primarily aid the building of new telecommunications networks and improving the access to telecommunication services in rural areas. 2003 and 2004: 1.3.

3 Regulatory and institutional development

3.1 Effective regulatory institutions

3.1.1 The top management of Beltelecom is appointed by the Ministry of Communication and Informatization. The managements of the mobile phone operators and the Internet providers are selected by their shareholders. 2003 and 2004: 2.0.

3.1.2 Beltelecom is a state enterprise. The telecommunications sector activities are regulated and controlled by the Ministry of Communication and Informatization. Mobile phone operators are not subordinated to the Ministry of Communication and Informatization. 2003 and 2004: 1.3.

3.1.3 The rules of the sector's operation are defined in legal acts, which are far from perfect. Administrative regulation is strong. The decision-making process is not open to public scrutiny and is greatly influenced by political factors. An increasing number of decisions is being made in the state's interests and to the detriment of private market participants; e.g. the tender cancellation during the creation of the third GSM operator and the setting up a fully state owned mobile phone company. The indicator was decreased from 1.7 in 2003 to 1.3 in 2004.

3.2 Access regulation. Access is provided through tender allocation and operations licensing. 2003 and 2004: 1.7.

GAS

1. Commercialization and privatization

1.1 Ownership

1.1.1 The major gas and distribution gas pipelines are nearly 100% state owned despite Beltransgaz' corporatization (the state owns 99.99% of its shares, too). 2004: 1.7.

1.1.2. The transportation and distribution of gas are unbundled. Enterprises that form the concern Beltopgaz are mostly state enterprises. 2004: 1.3.

1.1.3. Construction, infrastructure maintenance and other ancillary enterprises are mostly state owned and/or are controlled by state concerns. 2004: 1.3.

1.2. Operation

1.2.1. The Ministry of Energy regulates the activities of Beltransgaz and the regional gas organizations (Oblgaz), but the enterprises function as independent financial units. 2004: 1.3.

1.2.2 The commercial goals are weak. Political influence on all management and investment decisions prevail. 2004: 1.7.

1.2.3 The private sector takes a minor part in providing services to the gas sector. 2004: 1.7.

1.3. Organizational structure

1.3.1. Gas transport is separated from distribution and sales. The concern Beltopgaz deals with both transport and sales of gas to consumers. 2004: 1.7.

1.3.2. The enterprises that provide supporting services (delivery, installation) are separated economically and organizationally but they are part of the concern. 2004: 1.7.

2. Tariff reform

2.1. Structure of tariffs

2.1.1 Price and tariff setting is still subject to strong political influence, and determined by state priorities in economic development. Economic activities are separated from regulatory functions. All important prices and tariffs are set by the Ministry of Economy. This ministry performs some regulatory functions. 2004: 2.0.

2.1.2 Beltransgaz prices cover average costs. In 2004 cross-subsidization was increased (domestic prices for Beltopgaz were subsidized by increased transit revenues). In 2004 the indicator decreased from 2.3 to 2.0.

2.1.3 The overall revenues of the enterprises that make up Beltopgaz cover costs. In general the system of price formation is based on the cost plus method. Gas prices for domestic consumers do not depend on the distance of gas delivery. Prices for some industrial consumers are below costs. The cross-subsidization of households by industry resumed in 2004. The indicator was decreased from 2.3 to 2.0.

2.2. Payments

2.2.1 In 2004, debts were reduced and the share of cash payments increased. The indicator for 2004 was increased from 2.7 to 3.0.

2.2.2 Enterprises, especially in the industrial sector, improved their gas payments. Nevertheless debts by various consumers remain. 2004: 3.3.

2.2.3 State debts are low and do not exceed the amount due for the monthly gas consumption. 2004: 3.3.

2.3. State funding

2.3.1 Some categories of consumers buy gas at preferential prices. Their debts are restructured and they are given payment deferments. However, in 2004 debt write-offs were not practiced. 2004: 2.0.

2.3.2 The procedure of granting subsidies lacks transparency and does not target individual consumers. Certain categories of consumers get subsidies on a

permanent basis. One-time subsidies are given, too; there are also cases of implicit state aid (for example, state loans). 2004: 1.7.

3. Regulatory and institutional development

3.1. Effective regulatory institutions

3.1.1 The top management of Beltransgaz and enterprises of the concern Beltopgaz are appointed by the Ministry of Energy subject to approval by the President. 2004: 1.0.

3.1.2 The Ministry of Economy performs some regulatory functions in the sector. 2004: 1.3.

3.1.3 Administrative regulation is strong not only concerning management and decision-making, but also regarding contract performance by both of suppliers and consumers. There is no specific legislation to regulate the sector. 2004: 1.0.

3.2 Access regulation. In 2004 a tariff was established for gas transportation via the Beltransgaz pipeline in order to increase both openness and transparency in the sector. As well, network access to the low-pressure network of Beltopgaz by third parties was opened up. However, despite considerable improvements in the access regulations there are still numerous administrative barriers for third party access. The indicator was increased from 1.0 in 2003 to 2.0 in 2004.

ELECTRICITY

1. Commercialization and privatization

1.1 Ownership

1.1.1. The enterprises of Belenergo are almost all 100% state owned. The indicator is 1.3.

1.1.2. Generation, transportation and distribution of electric power are not unbundled and are mainly carried out by state enterprises. 2004: 1.0.

1.1.3. Construction, infrastructure maintenance and other ancillary enterprises are mostly state owned and/or are controlled by state concerns. 2004: 1.3.

1.2. Operation

1.2.1. The Ministry of Energy regulates the activities of the Belenergo enterprises, but each enterprise functions as an independent financial unit. 2004:1.3.

1.2.2. The commercial goals are weak. Political influence on management and investment decisions is prevalent. 2004: 1.7.

1.2.3. Construction and infrastructure maintenance are provided by the enterprises of Belenergo, some of which are privatized. 2004: 2.0.

1.3. Organizational structure

1.3.1. There is no separation between production, distribution and sales. 2004: 1.0.

1.3.2. The enterprises that provide supporting services (delivery, installation) are separated economically and organizationally, but they are parts of the concern. 2004: 1.7.

2. Tariff reform

2.1 Structure of tariffs

2.1.1. The setting of prices and tariffs is still strongly politically influenced. The

Ministry of Economy sets all important prices and tariffs. Economic activities are separated from regulatory functions, some of which the Ministry of Economy is responsible for. 2004: 2.0.

2.1.2. Prices cover average costs. However, cross-subsidization of heating by electricity still takes place. 2004: 2.3.

2.1.3. Overall revenues cover Belenergo's costs. In general, the pricing system is based on the cost plus method. Electricity prices for domestic consumers do not depend on the distance of transmission. In 2004, prices for some consumers were below costs. Tariffs for households were maintained at the cost level over the year on average, but by the end of 2004 minor cross-subsidization of households by industry reemerged. The indicator for 2004 was decreased from 2.3 to 2.0.

2.2. Payments

2.2.1. In 2004, debts inside the sector were reduced and the share of non-cash payments among the enterprises of the sector practically eliminated. The indicator for 2004 was increased from 2.7 to 3.0.

2.2.2. The level of payments, especially among industrial enterprises, increased. In 2004 they paid fully for current electricity consumption. Nevertheless some consumers still have debts outstanding. 2004: 3.3.

2.2.3. State debt is low and does not exceed the average level of payment for monthly electricity consumption. 2002 and 2003: 3.3.

2.3. State funding

2.3.1. Some categories of consumers buy electricity at preferential prices. Their debts were restructured and they were given payment deferments. However, in 2004 debt write-off was not practiced. 2004: 2.0.

2.3.2. The procedure of granting subsidies lacks transparency and does not target individual consumers. Certain categories of consumers get subsidies on a permanent basis. One-time subsidies are given; there are cases of implicit state aid (for example, state loans). 2004: 1.7.

3. Regulatory and institutional development

3.1 Effective regulatory institutions

3.1.1. The top management of the enterprises of Belenergo is appointed by the Ministry of Energy subject to approval by the President. 2004: 1.0.

3.1.2. Only household tariffs are not set by Belenergo (by the Council of Ministries). Belenergo declares tariffs to the Ministry of Economy. Belenergo is managed by the Ministry of Energy. 2004: 1.0.

3.1.3. Administrative regulation is strong not just concerning management and decision making, but also relative to contract performance both of suppliers and consumers. There is no specific legislation regulating the sector. 2004: 1.0.

3.2. Access regulation. Access to the power lines network is provided by Belenergo, nevertheless it is not closed. 2004: 1.0.

Appendix 3

Infrastructure Indicators Assess for Belarus

	Indicators	Railway		Roads		Telecom-munications		Gas		Electricity	
		2003	2004	2003	2004	2003	2004	2003	2004	2003	2004
1.	**Commercialization and privatization**	**1.5**	**1.5**	**1.7**	**1.7**	**1.8**	**1.8**	**1.6**	**1.6**	**1.4**	**1.4**
1.1	**Ownership**	*1.3*	*1.3*	*1.6*	*1.5*	*1.8*	*1.8*	*1.4*	*1.4*	*1.2*	*1.2*
1.1.1	Natural monopoly	1.3	1.3	1.0	1.0	1.3	1.3	1.7	1.7	1.3	1.3
1.1.2	Potentially competitive businesses	1.3	1.3	2.0	1.7	2.0	2.0	1.3	1.3	1.0	1.0
1.1.3	Ancillary businesses	1.3	1.3	1.7	1.7	2.0	2.0	1.3	1.3	1.3	1.3
1.2	**Operation**	*1.8*	*1.8*	*1.4*	*1.4*	*1.7*	*1.7*	*1.6*	*1.6*	*1.7*	*1.7*
1.2.1	Natural monopoly	1.7	1.7	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3
1.2.2	Natural monopoly planning and investment decisions	2.0	2.0	1.3	1.3	1.7	1.7	1.7	1.7	1.7	1.7
1.2.3	Private sector participation in service contracts	*1.7*	*1.7*	*1.7*	*1.7*	*2.0*	*2.0*	*1.7*	*1.7*	*2.0*	*2.0*
1.3	Organizational structure	*1.4*	*1.4*	*2.2*	*2.2*	*2.0*	*1.9*	*1.7*	*1.7*	*1.4*	*1.4*
1.3.1	Separation of natural monopoly and potentially competitive businesses	1.0	1.0	3.0	3.0	2.0	2.0	1.7	1.7	1.0	1.0
1.3.2	Separation of ancillary businesses	1.3	1.3	2.0	2.0	2.3	2.3	1.7	1.7	1.7	1.7
1.3.3	Decentralization	2.0	2.0	1.7	1.7	1.7	1.3	-	-	-	-
2.	**Tariff reform**	**1.5**	**1.5**	**1.8**	**1.8**	**2.6**	**2.7**	**2.4**	**2.4**	**2.4**	**2.4**
2.1	**Structure of tariffs**	*1.7*	*1.7*	*2.0*	*1.9*	*2.7*	*2.8*	*2.2*	*2.0*	*2.2*	*2.1*
2.1.1	Political vs. regulated operators	1.7	1.7	2.0	2.0	2.7	2.7	2.0	2.0	2.0	2.0
2.1.2	Natural monopoly pricing	1.7	1.7	2.0	2.0	2.3	2.3	2.3	2.0	2.3	2.3
2.1.3	Potentially competitive businesses pricing	1.7	1.7	2.0	1.7	3.0	3.3	2.3	2.0	2.3	2.0
2.2	**Payments**	*1.7*	*1.7*	*2.1*	*2.1*	*3.1*	*3.3*	*3.1*	*3.2*	*3.1*	*3.1*
2.2.1	Intra-industry payments ratios	2.0	2.0	2.3	2.3	3.0	3.3	2.7	3.0	2.7	3.0
2.2.2	Final consumer collection rates	2.0	2.0	2.0	2.0	3.0	3.3	3.3	3.3	3.3	3.3
2.2.3	State indebtedness	1.0	1.0	2.0	2.0	3.3	3.3	3.3	3.3	3.3	3.3
2.3	**State funding**	*1.0*	*1.0*	*1.3*	*1.3*	*2.0*	*2.0*	*1.9*	*1.9*	*1.9*	*1.9*
2.3.1	Subsidies level	1.0	1.0	1.3	1.3	2.7	2.7	2.0	2.0	2.0	2.0
2.3.2	Subsidies procedure	1.0	1.0	1.3	1.3	1.3	1.3	1.7	1.7	1.7	1.7
3.	**Regulatory and institutional development**	**1.2**	**1.2**	**1.8**	**1.7**	**1.7**	**1.6**	**1.0**	**1.5**	**1.0**	**1.0**
3.1	**Effective regulatory institution**	*1.4*	*1.4*	*1.7*	*1.7*	*1.7*	*1.5*	*1.0*	*1.0*	*1.0*	*1.0*
3.1.1	Management selection of competitive businesses	1.3	1.3	2.0	2.0	2.0	2.0	1.0	1.0	1.0	1.0
3.1.2	Independence of regulator	1.3	1.3	1.7	1.7	1.3	1.3	1.0	1.0	1.0	1.0
3.1.3	Transparency of regulation	1.7	1.7	1.3	1.3	1.7	1.3	1.0	1.0	1.0	1.0
3.2	**Access regulation**	*1.0*	*1.0*	*2.0*	*1.7*	*1.7*	*1.7*	*1.0*	*2.0*	*1.0*	*1.0*
RC IPM indicator		**1.4**	**1.4**	**1.8**	**1.7**	**2.0**	**2.0**	**1.7**	**1.8**	**1.6**	**1.6**
EBRD indicator		**1.0**	**1.0**	**2.0**	**2.0**	**2.0**	**2.0**	**-**	**-**	**1.0**	**1.0**

Source: EBRD (2003) Integration and regional cooperation, EBRD (2004) Infrastructure, IPM Research Center estimates.

About the project

The joint project of the German Economic Team in Belarus and the IPM Research Center was launched in May 2003 with support of the Ministry of Economy and Labor (Germany) under the TRANSFORM program. The main objective of the project is to support the Belarusian government in the field of economic policy. To achieve this, the team of experts regularly prepares analytical papers on different topical issues and presents recommendations to the officials from the National Bank, the Ministry of Finance, the Ministry of Economy, the Ministry of Foreign Affairs and other institutions involved in the process of formation and implementation of economic policy.

Activities

- Analysis of the economy of Belarus;
- Monitoring of main sectors of the economy;
- Promotion of professional dialogue between Belarusian and German experts on important issues for the economic development of Belarus.

Team

German Economic Team in Belarus

Prof. Dr. Stephan von Cramon-Taubadel, Team Co-Leader

Dr. Ricardo Giucci, Team Co-Leader

IPM Research Center

Dr. Igor Pelipas, Director of the Research Center, monetary economics and applied econometrics

Dr. Irina Tochitskaya, Deputy Director of the Research Center, international economics

Svetlana Savitskaya, Project Manager and

Dr. Elena Rakova, energy sector, structural and competition policy, enterprise reform

Dr. Yury Valevich, institutional economics and public finance

Dzmitry Babicki, transport sector and agriculture

Alexander Chubrik, economic growth and monetary policy

Dzmitry Kruk, banking sector

Vera Volchok, financial and real sector, telecommunications

Analytical materials

Current research products and publications of the project group are available via the Internet (http://ipm.by/get).

Belarusian Monthly Economic Review (BMER)

A monthly bulletin has been published since October 2002. It provides readers with recent news on politics and economics, covering such sectors of the economy as the real sector, structural trends, the external sector, public finance, monetary policy and the banking sector.

Policy Papers

Analytical materials on specific economic issues providing policy recommendations for the government and other organizations involved in the process of creating and implementing economic policy.

PP/01/04 Should branches of foreign banks be allowed to operate in Belarus?

PP/02/04 Eurobonds conference: key findings

PP/03/04 Belarus as a gas transit country

PP/04/04 Seminar on gas transit: key findings

PP/05/04 The main problems and directions of city-company restructuring in Belarus

PP/06/04 Reform of the Simplified System of Taxation for Small Business in Belarus

PP/07/04 The Insurance Sector in Belarus: Analysis and Recommendations

PP/08/04 Taxation of agriculture in Belarus

PP/09/04 Measures to Improve the Access of Agricultural Enterprises to Capital

PP/10/04 The Relationship Between Monetary and Fiscal Authorities: A Survey of the Issues

PP/11/04 Proposals for Further Improvement of the System of Presumptive Income Taxation of Individual Entrepreneurs in Belarus

PP/12/04 Proposals for the Development of Micro-finance Institutions in Belarus

PP/13/04 The Implementation of Contract Savings Schemes for Housing (Bausparen) in Belarus – Features, Recommendations and Examples

PP/14/04 The Economic Impact of Belarus' Accession to the WTO – A quantitative assessment

PP/15/04 Gas Sector Restructuring in Belarus: Necessity and Directions

PP/16/04 Belarus' Accession to the World Trade Organization: Insurance Sector Liberalization

PP/17/04 Monetary and Exchange Rate Policy in Belarus: Analysis and Recommendations

PP/18/04 Is price regulation the proper way to achieve food security in Belarus?

Belarus Infrastructure Monitoring

Monitoring of the current situation and the perspectives for the development of the energy, telecommunications and transport sectors in Belarus. The following sectors are monitored: electricity, gas, telecommunications, railways and roads.

Научное издание

Елена Юрьевна РАКОВА
Дмитрий Михайлович БАБИЦКИЙ
Вера Дмитриевна ВОЛЧОК
Иван Владимирович ПОЛТАВЕЦ

МОНИТОРИНГ ИНФРАСТРУКТУРЫ БЕЛАРУСИ

Редактор *А. В. Руцкий*
Корректор *Л. А. Еркович*
Компьютерная верстка *Н. В. Раготнер*

Подписано в печать 25.03.2005. Формат 60x84/8. Бумага офсетная.
Печать офсетная. Усл. печ. л. 4,65. Уч.-изд. л. 3,90. Тираж 300 экз. Зак.

ОДО «Равноденствие». 220004, г. Минск, ул. Освобождения, 9.
Специальное разрешение (лицензия) № 02330/0133212 от 30.06.04.