

## **Infrastructure Monitoring for Ukraine (IMU)**

**No. 9/2007**

Anna Chukhai, Oleh Krykavskyy, Ferdinand Pavel,  
Natalia Sysenko, Inna Yuzefovych

**September 2007**

*Anna Chukhai:* Research associate, PhD student, Heriot-Watt University, Edinburgh, United Kingdom. Works on infrastructure development and regulation, with special attention to restructuring of the energy, transport and the water and wastewater sectors. Graduated from the National University of "Kyiv-Mohyla Academy" (Master of Arts in Economics).

*Oleh Krykavskyy:* Research associate, post-graduate student at the Institute of World Economy and International Relations, the National Academy of Sciences of Ukraine. Research interests: energy sector. Graduated from the National University "Ostroh Academy" (Specialist in Law), University of Warsaw, Poland (Graduant of Political Course of Eastern Europe Studies), the National University of Kyiv-Mohyla Academy (Master in Law).

*Ferdinand Pavel:* Dr.rer.agr.: Member of the German Advisory Group with the Ukrainian Government in Kyiv. Works on structural policy, energy supply and trade policy.

*Natalia Sysenko:* Research associate, post-graduate student at the Department of Economics, National University "Kyiv-Mohyla Academy", specialization: Economics. Research fields: infrastructure sectors of transport and telecommunications; innovations and their economic efficiency. Graduated from the National University "Kyiv-Mohyla Academy" (Specialist Degree magna cum laude in Economics).

*Inna Yuzefovych:* Research associate. Research interests: energy sector, infrastructure development and regulation. Graduated from the National University "Kyiv-Mohyla Academy" (MA in Economics) and Kryviy Rig Technical University (Specialist in Finance).





**List of abbreviations**

AMCU - Antimonopoly Committee of Ukraine

bcm - billion cubic meters

CMU – Cabinet of Ministers of Ukraine

EBRD – European Bank of Reconstruction and Development

ECU - Energy Company of Ukraine

EU – European Union

IMU – Infrastructure Monitoring of Ukraine

MTCU – Ministry of Transport and Communications of Ukraine

NCRC - National Commission for the Communications Regulation

NERC – National Electricity Regulatory Commission

PFTS – First Securities Trading System

PPP - Public-private partnership

RUE - RosUkrEnergo

SPFU – State Property Fund of Ukraine

tcm - thousand cubic meters

UGE – UkrGas-Energo

USD - United States Dollars

UZ - Ukrzaliznytsia



## **Infrastructure Monitoring for Ukraine (IMU) No. 9/2007**

Anna Chukhai, Oleh Krykavskyy, Ferdinand Pavel, Natalia Sysenko,  
Inna Yuzefovych

<b>Foreword .....</b>	<b>6</b>
<b>1 Summary .....</b>	<b>7</b>
<b>2 Ukrainian Infrastructure Policies September 2006 – August 2007 .....</b>	<b>8</b>
<b>2.1 Telecommunications .....</b>	<b>9</b>
<b>2.2 Railways and transport .....</b>	<b>14</b>
<b>2.3 Roads .....</b>	<b>18</b>
<b>2.4 Power .....</b>	<b>20</b>
<b>2.5 Gas .....</b>	<b>24</b>
<b>2.6 Water and wastewater. ....</b>	<b>28</b>
<b>Appendix 1 Infrastructure Indicator evaluation .....</b>	<b>32</b>
<b>Appendix 2 General description of the infrastructure indicators .....</b>	<b>34</b>
<b>Appendix 3 Explanations for the infrastructure indicator evaluations given in Appendix 1 (September 2006 - August 2007) .....</b>	<b>38</b>



## Foreword

This is the ninth “Infrastructure Monitoring for Ukraine” report issued by the Institute for Economic Research and Policy Consulting in Kyiv. It presents information on the restructuring of six key infrastructure sectors of the Ukrainian economy in a standardized manner, which allows for cross-industry comparisons.<sup>1</sup> When developing the evaluation methodology the Institute for Economic Research and Policy Consulting followed the EBRD’s approach. Monitored indicators are qualitative and fall into three broad categories: (1) commercialisation, (2) tariff reform, and (3) regulatory and institutional development. Twenty-one indicators allow for economic and policy-making analysis at different aggregation levels. The indicators are constructed in a way that represents the status of the reforms in each sector at a given moment in time. An extensive discussion of the methodology employed was presented in the first issue of IMU.<sup>2</sup>

Section 1 contains an executive summary that outlines major developments within selected sectors of the infrastructure during the period from September 2006 till August 2007. A general analysis of the Ukrainian infrastructure policies is presented in Section 2. The detailed study of reforms in each of the six sectors includes not only an ex-post analysis, but also an outline of major challenges to future development. A description of the reform progress in each infrastructure sector supplements the numerical evaluation and provides a broader view of the situation. Appendixes summarize the evaluations in tabular form and provide methodological explanations and detailed comments for each indicator.

---

<sup>1</sup> For earlier issues, see Infrastructure Monitoring for Ukraine, which can be downloaded from the Institute’s website at [[http://www.ier.kiev.ua/English/IMU\\_eng.html](http://www.ier.kiev.ua/English/IMU_eng.html)].

<sup>2</sup> IMU No. 1, June 2001, see also IER Working Paper No 8 [[http://www.ier.kiev.ua/English/WP/2001/WP2001\\_eng.html](http://www.ier.kiev.ua/English/WP/2001/WP2001_eng.html)].



## 1 Summary

The indicator for **Telecommunications** slightly increased from 2.50 to 2.53 due to enhanced competition on the market. However, the growth in indicator was not so significant because of delays in further sector's reforms. In particular, the regulator of the sector is still unable to monitor the market and interfere in effective manner.

The indicator in the **Railways** sector decreased from 1.80 to 1.79, and the main reason is weakened financial discipline regarding both the budget payments to Ukrzaliznytsia and collection rates from final consumers, i.e. commuter rail services consumers.

The indicator for **Roads** has not been changed due to the lack of significant institutional and legal changes in the sector. During the monitored period, the hottest issue was the necessity to adopt amendments to the Ukrainian legislation on concessions in order to attract investments. However, they have not been adopted so far.

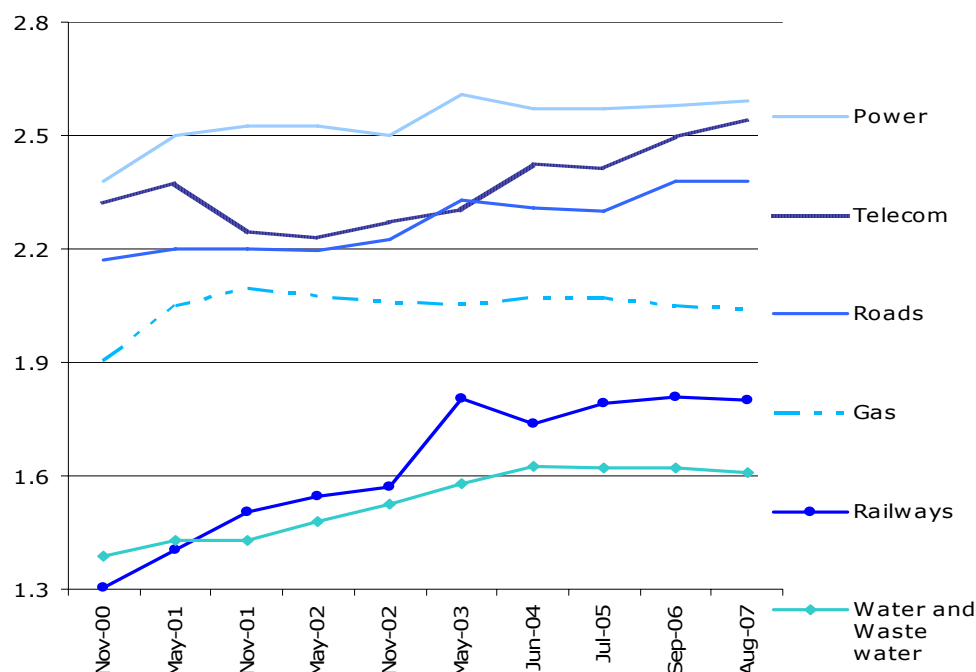
The overall indicator for the **Power** sector has been slightly increased from 2.57 to 2.58 due to improvements in tariff policy. The government continued tariff adjustment to cost covering level and started to use open auctions to export Ukrainian electricity. The Concept of Privatisation in energy Sector has been approved, which envisages the third wave of privatisation of transmission companies.

The indicator for **Gas** has been slightly decreased from 2.04 to 2.03 due to changes in pricing policy. The CMU has decreased investment attractiveness of gas extraction sector having obliged joint extraction companies to sell their gas exclusively to Naftogas Ukrayiny at a lower than market price. Payment discipline has worsened in response to gas price increase in January 2007. The government made several steps to improve payments discipline of industrial customers and set up tougher rules for oblgases for usage of distribution networks.

The aggregate indicator for the **Water and wastewater** sector has been slightly decreased from 1.61 to 1.60. The positive effect from the improved natural monopoly pricing was eliminated by the weakening of payment discipline regarding collection rates from final consumers.



**Figure 1**  
IER infrastructure indicators for Ukraine



Source: Own estimations

## 2 Ukrainian Infrastructure Policies September 2006 – August 2007

Structural reforms in infrastructure sectors of Ukraine traditionally have been progressed very slowly. Last several years reforms have been stagnated in the sectors. Very often right decisions forward reforms are followed by steps back. During September 2006 – August 2007 there were slight improvements in telecommunications and power sectors, while situation in railways, gas and water and wastewater sectors worsened. Indicator for road sector has not changed.

In **telecommunications** sector competition on the market were moderately enhanced. However, further growth in the sector's indicator is hampered by delay in further reforms. In particular, the regulator in the sector is still very weak in its powers and competence. Financial discipline has weakened in the **railways** sector. Both budget payments to Ukrzaliznytsia and collection rates from commuter rail services consumers have declined. The Concept for the State Program on Reforms of Ukrainian Railways Transport was adopted, which is in line with modern railways development practice. However, its effects will highly depend on further government's efforts. In the **roads** sector the main issue was a need to adopt amendments to the Ukrainian legislation On concessions in order to attract more investments. However, they have not been adopted so far. Tariff policy in **power** sector has been improved. The government continued to adjust tariffs to cost covering level and started to use open auctions to export Ukrainian electricity. In the **gas** sector the CMU



has decreased investment attractiveness of gas extraction having obliged joint extraction companies to sell their gas exclusively to Naftogas Ukrayiny at a lower than market price. Payment discipline has worsened in response to gas price increase in January 2007. In the **water and wastewater** sector pricing policy has improved. Cost-covering of tariffs has increased on average. However, weakened payment discipline has negated positive effect of improved tariff structure.

## 2.1 Telecommunications

Communications is one of the fastest growing sectors in Ukraine. In 2000-2005 total nominal output of communication services almost tripled from UAH 7 m to UAH 25 m (Table 1), mainly driven by the growing demand for mobile and Internet services against the background of stable or even reducing prices for services. The other noticeable features of the sector are constantly growing productivity and increased profits share in value added.

**Table 1**

The role of communications sector in the economy

		2000	2001	2002	2003	2004	2005
Output	UAH m	7,057	8,965	11,587	14,268	19,703	24,956
	% total output	1.6	1.7	2.0	2.1	2.2	2.2
	% services output*					5.8	5.8
Value added	% GDP	3	3	4	4	3.6	3
Value added / output	%	62	68	69	67	63	54
Structure of value added:							
Compensation to employees	% sector VA	39	36	36	34	29	31.9
Profit, mixed income	% sector VA	47	56	52	56	65	57.5
	% sector VA						
Net taxes on production and imports		14	8	11	11	6	10.6
Employment	thous people	256	256	255	252	254.2	259
	% total employed	1.9	2.0	2.1	2.2	2.3	2.3
Average wage	UAH	317	402	469	548	710	967
Exports	UAH m	484	499	475	443	665	2407
	% total exports	0.5	0.4	0.4	0.3	0.3	1.1
	% sector output	6.9	5.6	4.1	3.1	3.4	9.6
Imports	UAH m	539	542	533	421	558	1628
	% total imports	0.6	0.5	0.5	0.3	0.3	0.7
	% sector output	7.6	6.0	4.6	3.0	2.8	6.5
Exports/imports	index	0.9	0.9	0.9	1.1	1.2	1.5

\* including Construction

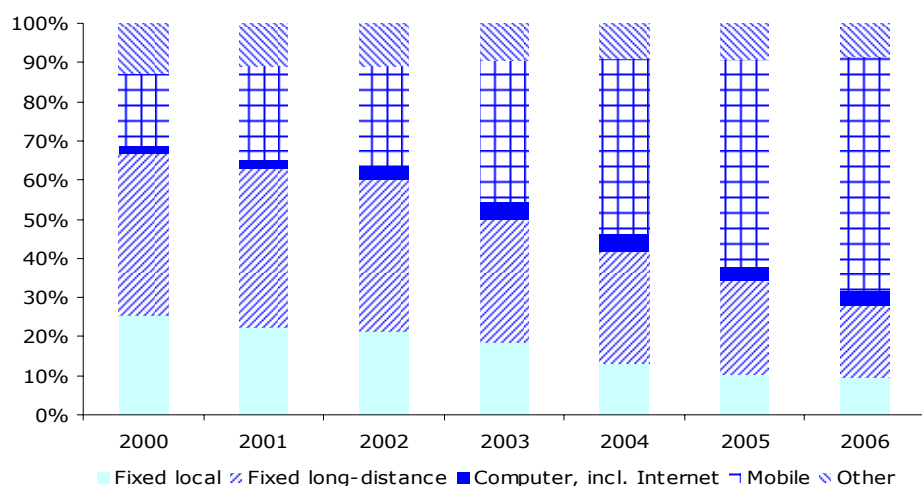
Source: State Statistics Committee, own calculations

Mobile communication services sector is the most dynamic segment of the market that is predominantly driven by the growth in income of population. Its share in communications revenues is constantly growing both in qualitative (Figure 2) and quantitative terms (Figure 3).




**Figure 2**

Dynamics of the communications revenues structure, %

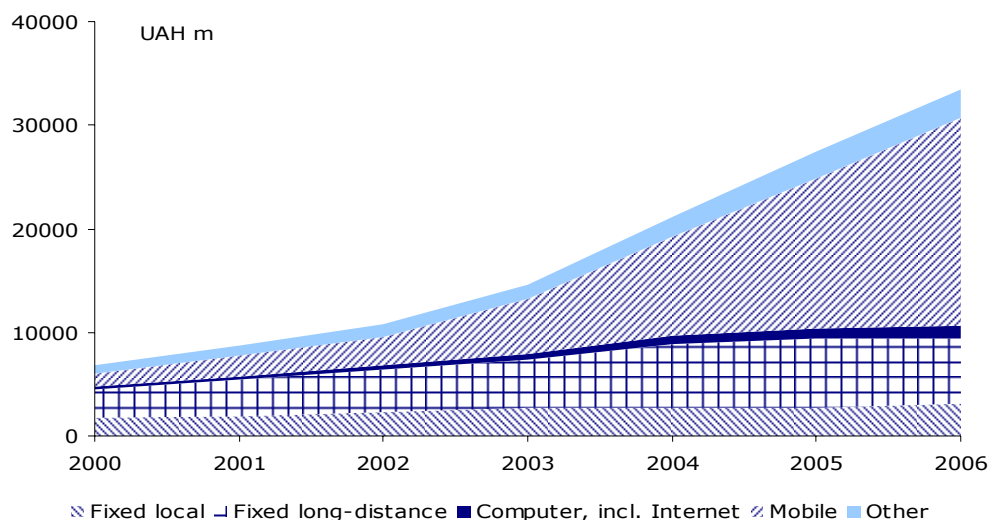


Source: State Statistics Committee, own calculations

According to the State Statistics Committee, the amount of subscribers to these services has reached 49.2 m by January 2007 (Table 2), while the amount of the fixed line users equaled only 11.5 m.

**Figure 3**

Communications revenues, UAH m



Source: State Statistics Committee, own calculations

The major fixed line providers - Ukrtelecom, Golden Telecom, Farlep and Optima - occupy 90% of the fixed line market, 80% of which belongs to



Ukrtelecom. The mobile telecommunications market demonstrates rather tough competition with constantly growing number of subscribers of GSM<sup>3</sup> operators as well as CDMA<sup>4</sup> operators.

**Table 2**  
Mobile subscribers in Ukraine

	Number of subscribers, January 1, 2007, m	The growth over 2006, %
Total number of subscribers	49.2	63
Kyivstar	21.5	54.5
UMC	20.0	50.1
Astelit	5.6	121.6
URS	1.9	723.7
Velton Telecom	0.097	38.4
ITC	0.0599	133.9
Golden Telecom	0.051	1.9
Intertelecom	0.035	31.1
Ukrainsk'a hvylya	0.0127	15.5
CST-Invest	0.0119	47.5

Source: NCRC, iKS-Consulting

Among the key GSM players are both domestic and foreign companies: Kyivstar, UMC, Astelit (TM Life:)), URS (TM Beeline) and Golden Telecom. Among key CDMA operators are Velton Telecom, ITC, Intertelecom, Telesystemy Ukrainy, Ukrainsk'a hvylya and CST-Invest. Currently the number of mobile subscribers even exceeds the Ukrainian population, but real level of penetration is estimated as nearly 65%<sup>5</sup>.

Nevertheless, pertaining the competitive features the range of services on this segment of the market remains rather limited and the quality of services also remains rather low, i.e. glitches, switching congestions, low speed of data transfer, delayed services, etc.

### 2.1.1 Reforms between September 2006 and August 2007

There were no significant changes in the sphere of telecommunications in 2006-2007. The market continued to develop.

The National Commission for the Regulation of Communications (NCRC) adopted a new order on mutual settlements between telecommunications operators for services of access to lines<sup>6</sup>, which came into force on January 1, 2007. According to the order, payments will be calculated per unit while before they were calculated on a monthly basis. Payments for access to lines of Ukrtelecom are set higher for other operators, which is not consistent with idea of fair competition. However, the order improves current regulation since before Ukrtelecom didn't pay for access to other operators' lines at all. The

<sup>3</sup> Global System for Mobile Communications, a cellular technology

<sup>4</sup> Code Division Multiple Access, a cellular technology

<sup>5</sup> iKS-Consulting

<sup>6</sup> Resolution of the NCRC, "On adoption of the Order on mutual settlements between telecommunications operators for services of access to telecommunications networks while serving telephone communications ", No. 351, September 6, 2006

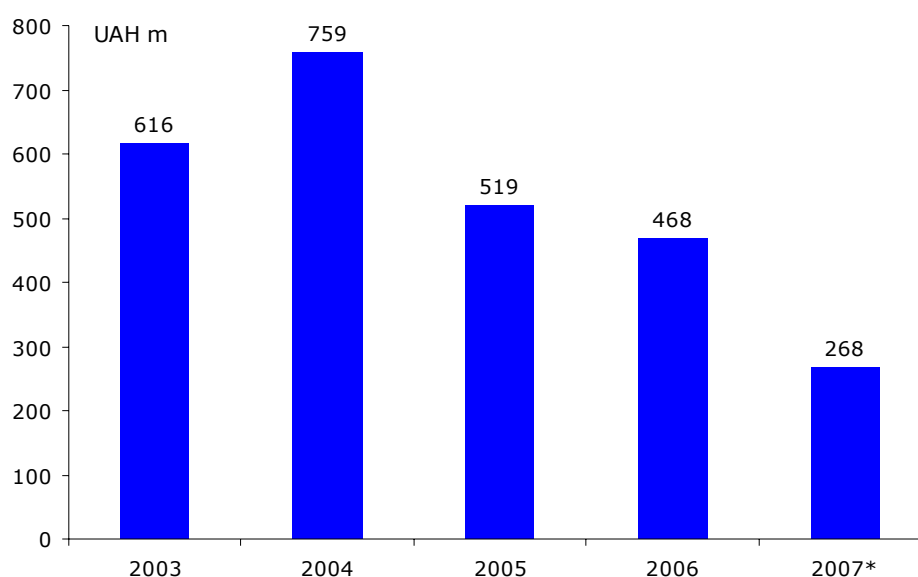


indicator “access pricing regulation method” has been increased from 2.3 to 2.7.

During the monitored period some changes in fixed line tariffs setting occurred. According to the plan, approved in 2006<sup>7</sup>, they were increased by another 15% (as it was the second stage of tariffs adjustment) from November 1, 2006. At the same time, international calls became cheaper, thus, increasing the competitiveness of Ukrtelecom on this segment of the market. This step allowed reducing the cross-subsidization of local calls by international calls, but the question of improving quality of Ukrtelecom services remains open.

In addition, amendments to the Law on Telecommunications<sup>8</sup> have increased the monopolistic power of Ukrtelecom in establishing the prices for fixed line services. In particular, new regulation allowed this company to raise tariffs on calls from fixed lines on mobile phones since January 2007. Nevertheless, these steps haven't redeemed Ukrtelecom from its profits decrease (Figure 4)

**Figure 4**  
Profits of Ukrtelecom, UAH m



\* Planned

Source: Ukrtelecom

<sup>7</sup> Resolution of the NCRC, “Marginal tariffs for universal telecommunications services”, No. 258, May 5, 2006.

<sup>8</sup> Law of Ukraine, “On amendments to the Law of Ukraine “On telecommunications” regarding the list of public services”, No. 378-V, November 28, 2006.



Announced privatization of Ukrtelecom has not occurred so far. The State Property Fund of Ukraine (SPFU) decided to sell 37.86% of the shares in Ukrtelecom on international stock exchanges in the August-December 2007 period by initiating issuance of this amount of depositary receipts, and 5% of the shares on five Ukrainian stock exchanges, and thus preserve state ownership of a 50% stake + 1 share. So far the SPFU has sold only 0.07% of shares in Ukrtelecom for UAH 15.525 m via an auction on the PFTS stock exchange. So, privatization of minor stakes of Ukrtelecom has failed, and it is unknown when this company is going to be actually privatized. Until today, the decision process remains highly dependent upon political and economic interest groups, which undermines competition-oriented improvements in the sector.

Another important issue is transparent and efficient award of available prospective spectrum in the bands for new technologies (in particular, WiMAX and 3G). At present, such spectrum is scarce resource. Part of it has already been allocated and not always in transparent way. The first open tenders for frequencies were conducted by the NCRC only in autumn 2006, on which price for license for WiMAX was increased 9-10 times, and the NCRC attracted nearly UAH 14 m to the budget. The other part of spectrum is currently occupied by Ukrtelecom, the Ministry of Internal Affairs and the Ministry of Defense. Thus, the conversion of these frequencies should be conducted, so that more 3G licenses can be issued, but it requires funds. On August 1, 2007 the Cabinet of Ministers adopted an order On additional funds attraction for the conversion of frequencies<sup>9</sup>, which allowed inclusion of such costs into price for 3G license. Main mobile operators have agreed to buy licenses under such conditions. The NCRC plans to prepare tender terms and references till the end of 2007. In general, recent actions of the Commission demonstrate intention to regulate distribution of scarce frequencies in a proper manner in contrast to previous practice. Fast further growth of mobile market is expected. Thus, the indicator "potentially competitive businesses" was increased to 3.3.

At the beginning of 2007 the conflict between dominant and the other mobile operators regarding rates of interconnection took place and became the most notorious in the last years. The NCRC took neutral position. Though it has no allowance to set rates of interconnection between mobile operators, it should regulate the operators' interactions in case of telecommunications networks interconnection and solve disputes. Its inertia and the fact that corporate conflict became of a substantial scale have shown ineffective market regulation of the NCRC. Those events and disagreements inside this agency became an evidence for necessary changes in the practice of the NCRC. There is a draft law on legal status and appointment of the Commission's members on approval of the Parliament. However, on July 25, 2007 Regulations on the NCRC were adopted by a decree of the CMU<sup>10</sup>. They foresee the changes in

<sup>9</sup> Decree of the Cabinet of Ministers, "Order on additional off-budget funds for holding of conversion radio-frequency resource of Ukraine in the bands of spectrum of general use", No. 993, August 1, 2007.

<sup>10</sup> Decree of the Cabinet of Ministers, "On adoption of the Regulations on the National Commission for Communications Regulation of Ukraine", No. 971, July 25, 2007.



the subordination of the NCRC. In particular the CMU got the power to appoint the members and the head of the regulator and the Commission should report directly to the government. The document also omits items such as age requirements, terms the Commission's members should serve, preconditions for dismissal, etc, i.e. those nuances that can evoke new disagreements and weaken the Commission. Thus, adopted Regulations may undermine regulatory independence and create the prerequisites for government's interference. At the moment, aforementioned decree of the CMU is suspended by the Decree of the President of Ukraine<sup>11</sup>, which also causes immediate negative impacts on the sector and regulator. The indicator "independence of regulator, insulation from political influence" was not changed.

Finally, the telecommunications sector indicator has been increased from 2.50 to 2.53 mainly due to enhanced competition in the market.

### **2.1.2 Needed future reforms**

Despite the fact that telecommunications sector is the quite developed from the point of view of regulatory and institutional reforms, it needs regulatory improvements, more transparency in decision-making and implementation of fair-play rules. Crucial role in such a process belongs to the regulatory agency, i.e. the NCRC. The quality and effectiveness of regulatory institutions depends on level of implementation of six characteristics of effective regulatory system such as coherence, predictability, capacity, independence, accountability and transparency. However in practice, formal regulatory autonomy was frequently compromised and finally undermined by the new adopted Regulations on the NCRC. To be effective and proactive, regulator should have a statutory obligation to publish a statement outlining its decision-making on pricing, licensing, etc; qualified staff and financial independence; an authority to implement its mandate. The legislation on regulatory policies and its implementation must be consistent. And the government must be aware of necessity to delegate key regulatory functions and resist the temptation to interfere and overrule the Commission's resolutions. Otherwise, performance of such agency in Ukraine can be questionable.

## **2.2 Railways and transport**

Transport is one of the major infrastructure sectors, on which development the economy as a whole depends. It is the second most important sector in services after trade. In 2005 it accounted for 6% in total output and 16% in services output. Most of the value added was distributed to employees (51%) and the least share (9%) constituted net taxes (Table 3).

The railways are the most important mean of transportation. In 2006 it serviced 50% of total freight turnover, and 46% of total turnover of passengers.

---

<sup>11</sup> Decree of the President of Ukraine, No. 708/2007, August 15, 2007

**Table 3**

The role of the transport sector in the economy

		2000	2001	2002	2003	2004	2005
Output	UAH m	28,771	35,520	38,353	49,155	59,554	70,342
	% total output	7	7	7	7	7	6
	% services output*					17.4	16
Value added	% GDP	10	11	10	11	10	9
Value added / output	%	62	61	59	59	58	54
Structure of value added:							
Compensation to employees	% sector VA	37	38	50	47	39	51
Profit, mixed income	% sector VA	51	47	40	44	50	40
Net taxes on production and imports	% sector VA	11	16	11	10	11	9
Employment	thous people	850	791	759	742	719	733
	% total employed	6	6	6	6	6	6
Average wage	UAH	338	479	607	732	890	1057
Exports	UAH m	15,886	15,903	18,576	20,008	23,189	25,526
	% total exports	15	14	15	13	11	11
	% sector output	55	45	48	41	39	36
Imports	UAH m	3,400	2,196	3,469	4,805	11,226	12,684
	% total imports	3	2	3	3	6	6
	% sector output	12	6	9	10	19	18
Exports/imports	index	4.7	7.2	5.4	4.2	2.1	2.0

\* including Construction

Source: State Statistics Committee, own calculations

State railways monopolize the railway transportation in Ukraine. Six regional railways are regulated by the State Railways Administration (Ukrzaliznytsia), which is integrated into the Ministry of Transport and Communications. Railways infrastructure, freight, and passenger operations are strongly integrated. The Ukrainian railways also incorporate ancillary services and quite an extensive social infrastructure. The profit of Ukrzaliznytsia (UZ) constituted UAH 0.7 bn in 2006 (Figure 5), which is 2.3 times less than in 2005, when it sharply increased mainly due to passenger tariffs raise and underfinancing of planned costs. Changes in the last year may be explained by increase in costs of services provision.

### 2.2.1 Reforms between September 2006 and August 2007

During the monitored period most changes in railways sector occurred in tariff setting and organization of the Ukrainian railways.

In the end of 2006 the Concept for the State Program on Reforms of Ukrainian Railways Transport was adopted by the CMU<sup>12</sup>. According to the Concept, reforms of railways will be gradual and will last for 10 years. On the first stage (2006-2008) the separation of the government's regulatory function and operational function of the company is stipulated. It is also planned to create State Joint-Stock Company "Ukrainian railways", 100% of shares of which will be hold by the state. On the second stage (2008-2010) the further market

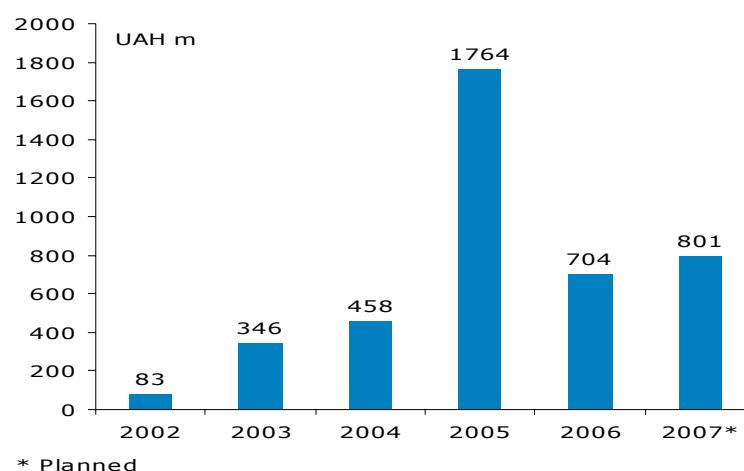
<sup>12</sup> Decree of the Cabinet of Ministers, No. 651-p, December 27, 2006.



transformation by separation of natural monopoly from potentially competitive and ancillary businesses is foreseen. There are also plans to create conditions for the gradual reduction of cross-subsidizing passenger travels at the expense of freight transportations. On the third stage (2011-2015) there is an intention to liberalize tariff-setting and to fully separate infrastructure and transportation operations into different segments. In the whole, the program is in line with modern railways practice of development and theory of networks industry regulation, but its implementation highly depends on further government's efforts to reform the sector as well as on independent regulator creation.

**Figure 5**

Net profits of Ukrzaliznytsia, UAH m



Source: Ministry of Transport and Communications

Apart from non-profitability and thus necessity to improve cost-covering, it is also intention to reduce cross-subsidization at the expense of freight transportation and to raise funds to replace rolling stock, 80% of which is now outmoded

As regards the tariffs for freight transportation, there is a necessity to fulfill the non-discriminatory requirements of the WTO and to comply with the EU directives regarding services pricing. In 2006 UZ proposed to approve the new Price list for freight rail transportation with equal tariffs for domestic, export and import transportation services. The proposed list also foresees the separation of infrastructure, carriage and locomotive charges in the tariff structure. However, at the same time, the cost of freight railway transportations was envisaged to increase on average by 30% if the new Price list were enacted. The latter was the major point of critique that prevented the adoption of the list in the monitored period.

As a result of long debates, the MTCU finally introduced gradual indexation of freight tariffs in May 2007<sup>13</sup>: basic tariffs were raised by 3% in June, July, and

<sup>13</sup> Resolution of the Ministry of Transport and Communications (MTCU), No. 402, May 15, 2007.

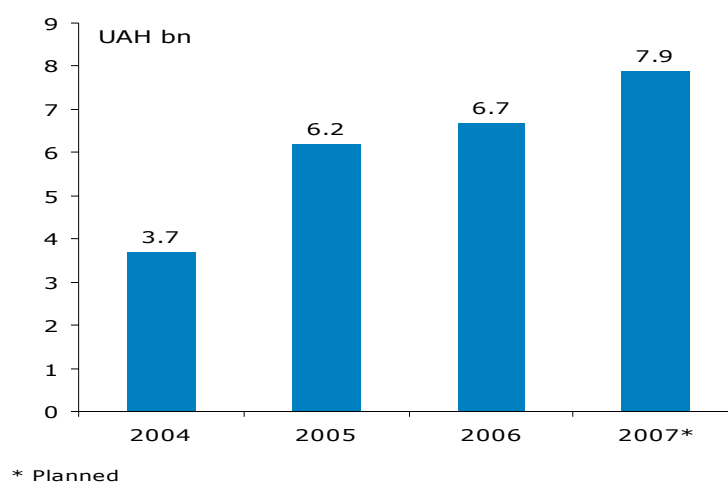


August. The resolution also foresees further increase by 2% each in September, October and December 2007. But for all that, UZ feels lack of equipment now, and this fact forced it to introduce discounts at the level of 15-51% for the freight forwarders with their own cars<sup>14</sup>.

The major problem here is the justification for the level of tariff change. Tariffs for both passenger and freight transportation services are still set non-transparently. The consumers still do not know the adequate cost of services they get. Breakdown of expense items by UZ is not publicly available, and it is difficult to assess whether they are adequate and where there is space for cost-cutting.

**Figure 6**

Payments of Ukrzaliznytsia to central budget, UAH bn



Source: Ministry of Transport and Communications

The situation with payments is becoming worse. State compensations to privileged consumers are not fully paid, which undermines financial performance of UZ and its capacities to renew outdated assets, to invest in development. Besides, the volumes of compensations, foreseen in the central state budget as well as local, are not sufficient to cover all transportation and infrastructure costs of railways<sup>15</sup>. At the same time payments of UZ to budget have been growing during last years. That's why the indicator "state indebtedness" was reduced.

The railways indicator decreased from 1.80 to 1.79 mainly because of increased payment arrears in the sector.

### 2.2.2 Needed future reforms

The MTCU and UZ have repeatedly announced plans to reform the railways sector. However, the plans are still unrealized, and recommendations of the

<sup>14</sup> Ibid.

<sup>15</sup> The costs of railroad transportation of privileged passengers have amounted UAH 147.1 m for the first half of 2007. At the same time, the budget compensations for the whole year of 2007 are foreseen as UAH 102.7 m.





previous issues of IMU regarding independent regulator creation and tariff-setting procedure are still relevant. Absence of structural alterations now results in irreversible consequences, which threaten the sustainable sector development. Among them are high level of obsolete equipment, which undermines financial performance of the railways company, destroys any space for cost-cutting and investments, and, above all, significantly reduces the level of safety in the railways sector. The latter can lead to fatalities and environmental disasters. In this respect, the first necessary steps should be directed to the elimination of the current situation grounds and to accelerate the reform process.

### **2.3 Roads**

The maintenance and construction of roads in Ukraine is provided by the state-owned JSC Avtomobilni dorogy Ukrainy, which currently incorporates 31 affiliated enterprises and 16 enterprises of special purpose. A government department – State Road Service Ukravtodor – manages Avtomobilni dorogy Ukrainy. Road network extensions and regulation are also the responsibility of Ukravtodor.

The state road transport department (Ukravtotrans) ensures the provision, development and regulation of competitive and safe road transport services and infrastructure (mainly bus stations). Its responsibilities include vehicle inspection, monitoring of road transport, routes opening and licensing, safety standards development, etc.

#### **2.3.1 Reforms between September 2006 and August 2007**

In September 2006 - August 2007 the government devoted special attention towards adaptation of the Ukrainian standards for roads and their infrastructure to the standards of the European Union, especially in the sphere of safety.

However, major problems concerned sustainable development of roads network. Thus, the government worked actively on ways to attract private both domestic and international funds to roads maintenance, reconstruction, and construction, in particular, those that are the parts of international transport corridors. The draft law On concessions for roads operation was prepared and approved in the first reading<sup>16</sup>. It is offered to allow the concessionaire not only to build, but also to rehabilitate and operate roads. The new feature of the draft law is guarantees for investor: risks sharing, mechanisms of loss compensation, tolls setting for access and operation of byroad infrastructure. However, it still needs to be finally adopted. The indicators of group “commercialization and privatization” were not changed.

In general, such intentions of the government can be positively assessed, but there are two obstacles on the way of concessions introduction: obligatory free alternative road, which can undermine investors’ plans to get certain level of return on investment, and unclear mechanism of public participation in projects. So, solutions should be found to guarantee effective implementation of concessions.

---

<sup>16</sup> Draft law, “On amendments to the Law of Ukraine “On concessions for construction and operation of motor roads”, No. 3258, March 2, 2007



Another method to attract investments chosen by the CMU is sovereign loans. In May the CMU adopted the law allowing Ukravtodor to attract in 2007 UAH 4.7 bn of sovereign loans<sup>17</sup>. Before, the limit was set at only UAH 1 bn. It is hardly disputable that roads infrastructure needs additional funds to be invested in its maintenance and expansion, but the efficiency of the planned projects to a great extent depends on how transparent the use of these funds will be. The previous practice was not always appropriate<sup>18</sup>.

Additionally, during September 2006 - August 2007 programs that foresee attracting investments in transport sector through cooperation with IFOs were approved, e.g., Program of cooperation between the Ukrainian government and the European Bank for Reconstruction and Development for 2007-2009.

During the monitored period one of the largest investment projects is having been realized, that is the II EBRD joint project on rehabilitation of road "Kyiv-Chop" on the total amount of EUR 137.3 m. There are some other projects aimed to rehabilitate and construct Ukrainian roads (Table 4).

**Table 4**

The credits of IFOs for motor roads construction in Ukraine

Road	Year of signing	Total costs	Credit amount	Creditor	Maturity	Interest rate
Kyiv-Chop (Chop-Stryi)	2000	EUR 100 m	EUR 75 m	EBRD	N/A	N/A
Kyiv-Odesa (Zhashkiv-Krasnoznam'yanka)	2004	EUR 650 m	USD 480 m	Deutsche Bank AG	10 years, a 2-year grace period	6.8%
Kyiv-Odesa	2005	USD 100 m	USD 100 m	Deutsche Bank AG	10 years	Libor+2.7%
Kyiv-Chop (Stryi-Brody)	2005	EUR 138 m	EUR 100 m	EBRD	15 years	Libor+1%
Kyiv-Chop (Kyiv-Rivne)	2006	EUR 677.5 m	EUR 200 m	EBRD	15 years, a 3.5-year grace period	N/A
Kharkiv-Simferopol, Kyiv-Kovel, Kipti-Bachivsk, Kyiv-Odesa, etc	2006	EUR 500 m	EUR 300 m	Citibank N.A.	10 years, a 3-year grace period	Libor+2.38%
Kyiv-Chop (Brody-Rivne, Rivne-Zhytomyr)	2007	EUR 677.5 m	EUR 200 m	EIB	20 years	Libor+0.55%
Kyiv-Odesa, Kharkiv-Simferopol, Kyiv-Gluhiv, Kyiv-Kharkiv, Kyiv-Lviv, Lviv-Uzhgorod, etc.	2007	N/A	USD 930 (2 equal tranches)	Morgan Stanley Bank International	10 years, a 3-year grace period	N/A

Source: Ukravtodor

In 2007 the CMU adopted Regulations about State Road Service of Ukraine. In particular, it legally confirmed the government's right to appoint the chairman of Ukravtodor, and the organization received more powers in controlling and

<sup>17</sup> Law of Ukraine, "On amendments to the Law on the 2007 State Budget of Ukraine", No. 900-V, April 5, 2007

<sup>18</sup> In 2005 Deutsche Bank AG provided USD 100 m credit with LIBOR + 2.7% interest rate with 10 year maturity for Kyiv-Odesa highway reconstruction. The facility was guaranteed by the State of Ukraine. The head of Accounting Chamber V.Symonenko affirmed that approximately UAH 1 bn was used ineffectively, price for 1 km construction increased 9 times, and quality of road was low.



estimating the effectiveness of enterprises' finances, their creation and elimination, contracting, awarding concessions, public procurements. This order is not very different from the previous, except for power of Ukravtodor to grant for concession

Taking into consideration the absence of important improvements, the indicator for roads sector was set at the same level.

### 2.3.2 Needed future reforms

The efficiency of roads maintenance and construction should be improved. For this purpose, regulatory and management functions in the road sector have to be separated, which was emphasized in the previous issues of IMU. Since the problem of under-financed road development is still a crucial issue while public funds are scarce, the parliament should finally adopt legislative basis for concessions and other forms of public private partnership. Here, a law on public-private partnership, which currently is being considered, is expected to improve the situation since it will allow increasing private participation in the sector and enhancing competition.

### 2.4 Power

Nominal output of the power sector has been growing since 2000 while its share in total output continuously declines. Employment of the sector has remained almost constant, in 2005 employment declined only by 0.1% yoy. In 2005 export of electricity raised almost by 50% and reached UAH 969 m, which is 3.6% of the total sector's output.

**Table 5**

The role of the power sector in the economy

		2000	2001	2002	2003	2004	2005
Output	UAH m	18,333	19,557	19,764	20,561	22,703	26,189
	% total output	4.2	3.7	3.5	3.0	2.5	2,3
	% industrial output	7.9	7.1	6.6	5.6	4.8	4,3
Value added	% GDP	5.2	4.6	4.2	3.6	3.1	2,9
Value added	% output	48	48	48	47	48	49
Structure of value added:							
Compensation of employees	% sector VA	21	26	33	35	56	49
Gross operating surplus, mixed income	% sector VA	73	72	65	65	36	38
Net taxes on production and imports	% sector VA	6	2	2	0	8	13
Employment*	thous people	521	526	528	529	533	542
	% total employed	3.8	4.1	4.3	4.5	4.8	4,7
Average wage*	UAH	371	476	562	651	767	969
Exports	UAH m	529	389	387	608	639	945
	% total exports	0.5	0.3	0.3	0.4	0.3	0,4
	% sector output	2.9	2.0	2.0	3.0	2.8	3,6
Imports	UAH m	11	16	15	14	2	0
	% total imports	0.0	0.0	0.0	0.0	0.0	0.0
	% sector output	0.1	0.1	0.1	0.1	0.0	0.0
Exports/imports	index	48.1	24.3	25.8	43.4	319.5	-

Source: State Statistics Committee, own calculations



\*Data is common for gas, water and power sector

The National Electricity Regulation Commission (NERC) is a regulator of the sector. All companies with installed generation capacity higher than a minimum threshold set by the National Electricity Regulation Commission (NERC) are obliged to supply all generated electricity to a common pool. The transmission and delivery of energy is carried out by 27 oblenergos, regional distribution companies, which buy electricity on the Energorynok (wholesale electricity market). Currently the state owns seven power generating companies and the majority stake in 14 transmission operators.

#### **2.4.1 Reforms between September 2006 and August 2007**

In the reported period cost covering of electricity tariffs continued to improve. The NERC started implementing a reform of wholesale electricity market (WEM) and SC Ukrinterenergo, which exclusively authorized to export electricity, started to sell electricity on open auctions. Government consolidated assets of nuclear industry in Ukratomprom and announced its plans as for further privatization of energy companies.

Early in 2007 the NERC nominated the consortium of international consulting firms that would assist the NERC in implementing a reform of the WEM operation,<sup>19</sup> the concept of which was approved by the government in 2002. First details of new WEM operations could be available in autumn 2007. They will foresee establishment of direct bilateral contracts between consumers and producers of electricity. The reform is aimed to facilitate competition between power generators, which in turn should keep price rises for final consumers on lowest possible level and to improve service quality in sector.

On September 1, 2006 households tariffs for electricity were raised by 25 % and reached UAH 0.2436 per kWh (VAT included)<sup>20</sup>. This was the second tariff increase in 2006 following the plan of the tariffs adjustment<sup>21</sup>. However current tariffs still cover only more than half of costs<sup>22</sup>. Tariff adjustment to a cost-covering level is positive and necessary step that allows electricity generators and distributors to maintain properly their assets and improves efficiency of electricity consumption. Unfortunately, the tariff adjustment plan has not been fully realized because of upcoming parliamentary elections, which again brings tariff issue into political rather than economical dispute.

At the same time, some industrial consumers enjoy a decrease in tariffs. From July 1, 2007 the NERC included 25 state coal-mining enterprises into the list of 1<sup>st</sup> class consumers<sup>23</sup> provided they do not accumulate new debts. Once these enterprises accumulate new debts – they will be moved back into the 2<sup>nd</sup> class of consumers. As of April 1, 2007 coal-mining enterprises had a debt of UAH

<sup>19</sup> The NERC received USD 3 m for this project from World Bank as a part of a loan agreement On Hydro Power Plants Rehabilitation Project on September 19, 2005

<sup>20</sup> NERC Decree No 926, July 20, 2006

<sup>21</sup> Order of the CMU No 733, May 24, 2006, which foresees 25% increase of the tariffs each half a year from September 2006 till April 2008

<sup>22</sup> According to Ministry of Fuel and Energy currents households' tariffs cover 52.3% of costs.

<sup>23</sup> Industrial consumers are divided into two groups depending on power voltage they use (more or less of 27.5 KW) and get own tariffs, which is monthly approved by the NERC. According to NERC Decision No 988, July 26, 2007 tariff for 1<sup>st</sup> class is UAH 0.3212 per kWh, for 2<sup>nd</sup> class is UAH 0.4259 per kWh (VAT included) as of August 01, 2007



2.6 bn and newly introduced changes should stabilize debt growth since the listed enterprises would have a time and some free funds to pay old debts.

As shown in table 6 tariff increase did not lead to a reduction in electricity consumption in general. For the first six months of 2007 electricity consumption grew by 4% yoy. Households consumed 7.2% more power than in the same period of 2006 in contrast to households gas consumption (see Gas chapter). The highest reduction in power consumption was achieved by chemical industry.

**Table 6**

Electricity consumption by group of consumers

	Jan-Jun 2007, m KWh	Growth yoy, %	Share in total, %
Total consumption	143 448,6	4,0	100
Industry	79690,8	2,3	55,6
metallurgical	42471,9	4,2	29,6
fuel	10020,2	-2,4	7,0
chemical and oil refinement	7227,9	-2,5	5,0
machine-building	6876,3	-2,1	4,8
food processing	4425,3	5,2	3,1
construction materials	3028,7	10,2	2,1
other	5640,5	3,9	3,9
Agriculture	3475,5	1,4	2,4
Transport	9622,7	4,2	6,7
Construction	1032,5	8,9	0,7
Utilities	16190,3	5,8	11,3
other-non-industrial consumers	5099,0	8,3	3,6
Households	28337,8	7,2	19,8

Source: Energobusiness

In 2006 payments collection rate for power purchased on the WEM rose by 2.9% yoy and reached 102.0%<sup>24</sup>, which demonstrates slow payment of old debts.

Following last year decision to improve management of the nuclear industry<sup>25</sup> the government approved a statute of the State Consortium Ukratomprom<sup>26</sup>. Newly established organization consolidated uranium-mining enterprises, industrial companies and scientific institutions<sup>27</sup> and has a goal to attract investments in nuclear industry. Ukratomprom is managed by Energoatom. The results of such transformation remains to be seen.

In May 2007 a draft Concept of Energy Companies Privatization was handed in to the CMU for approval. According to the current draft, 24 Energy companies are divided in 3 groups. Companies 25-27% shares of which is owned by the

<sup>24</sup> According to SC Energorynok information

<sup>25</sup> CMU Decree No 1854 December 29, 2006

<sup>26</sup> CMU Decree No 456 March 14, 2007

<sup>27</sup> Full list of entities is presented in Analytical Report "240 Days of the Activities of Ukrainian Authorities in the New Format: Assessment of Non-Governmental Analytical Centers"



state (6 companies) are proposed to be sold on open auctions<sup>28</sup>. Enterprises with state participation from 27% to 75% (10 companies) should be sold on open tenders with investment obligations. In case the state controls over 75% of a company additional emission of shares is foreseen. Companies with state participation of over 50% can use a mechanism of Public Private Partnership. Taking into account current tariffs adjustment in power sector energy companies should be very attractive for investors. Privatization will promote liberalization of the sector and efficiency improvements.

Improvements in electricity export allowed us to increase natural monopoly price policy index from previous 3.0 to current 3.3. This year government started to sell electricity abroad on open auctions. Three open auctions were held in March, June and July 2007, on which 127.8 GWh were sold at 6.6 – 6.7 eurocents per kWh on average. The price is almost 70% higher than initially asked price. However, only small share of power was sold on the auctions (only 1/5-1/6 of Burshtyn Energy Island<sup>29</sup> generation capacity). The majority of electricity is exported under long-run contracts at far lower prices<sup>30</sup> since Ukraine cannot guarantee uninterrupted electricity supply and has a technical limitation in choice of export destination. Other export directions rise questions as well. In January-February 2007 a price of Ukrainian electricity on Russian and Belarussian export routes was the same as in the WEM (UAH 0.21 per kWh) and decreased almost twice to UAH 0.11 per kWh in March.<sup>31</sup> Such a low price is because Belarussia buy only surplus flows of electricity which are mostly non-commercial and because there is very strong competition from Russian side. Ukraine lost UAH 366.33 million exporting electricity to Moldova in January 01, 2006 – June 30, 2007 because Moldova still pay a price lower than it is on WEM<sup>32</sup>. Export share in general electricity output is 5,5% for 6 months in 2007 what is 14.3% more yoy.

Thus the indicator for the power sector has been increase from 2.57 to 2.58 due to improvements in pricing policy.

#### **2.4.2 Needed future reforms**

Further tariff adjustment to cost-covering level should be made. Adequate pricing bases on the real costs of power supply will increase attractiveness of state shares in energy companies. Practice of open bids on electricity export should be widespread. More generally, generators should be allowed to export directly without an intermediary. There is also a need to speed up grid approximation to the UCTE standards, which will allow to diversify export routes for electricity. Finally, the WEM transformation on competitive basis should be facilitated further and consistent framework should be implemented as soon as possible.

<sup>28</sup> A decision to sell them is already approved by the CMU Decree No 226-r, April 26, 2007

<sup>29</sup> The total planned output of BEI is 550-600 MW. This is the only grid system that operates simultaneously with UCTE and has technical capacities to transfer electricity to Western partners.

<sup>30</sup> For instance, Hungarian System Consulting contracted 3,5 bn kWh of Ukrainian electricity at EUR 0.037 per kWh till 2015.

<sup>31</sup> 240 Days of the Activities of Ukrainian Authorities in the New Format: Assessment of Non-Governmental Analytical Centers [http://www.ier.kiev.ua/English/news\\_eng.cgi](http://www.ier.kiev.ua/English/news_eng.cgi)

<sup>32</sup> USD 0.0276-0.028 per kWh while WEM price is USD 0.047 per kWh.



## 2.5 Gas

Gas supply sector has a strategic importance for Ukrainian economy. Ukraine possesses decent natural gas resources and well-developed gas transportation infrastructure with 36 thousand km of pipelines.

Ukraine consumes around 75 bn of natural gas a year, and only 25% of this volume is produced domestically. Exhaustion of current gas wells, hampered exploration and lack of investments in gas and oil together with inadequate financing of investigations increase Ukraine's dependence on imported gas.

**Table 7**

Role of the gas supply sector in the economy

		2000	2001	2002	2003	2004	2005
Output	UAH m	2,075	2,367	2,439	2,112	2,129	2,356
	% total output	0.5	0.5	0.4	0.3	0.2	0.3
	% industrial output	0.9	0.9	0.8	0.6	0.4	0.5
Value added	% GDP	0.5	0.5	0.6	0.4	0.3	0.5
Value added/output	%	39.7	42.9	52.7	53.8	52.1	66.8
Structure of value added:							
Compensation of employees	% sector VA	54	58	56	68	75	47
Gross operating surplus, mixed income	% sector VA	36	35	16	2	1	47
Net taxes on production and imports	% sector VA	9	7	28	30	24	6
Employment*	thous people	521	526	528	529	533	542
	% total employed	3.8	4.1	4.3	4.5	4.8	4.7
Average wage*	UAH	371	476	562	651	767	969

Source: State Statistics Committee, IER estimates

\* Data is for gas, water and power sectors together

Output has increased only slightly from 2000 to 2005. In 2005 the ratio of value added to output reached its maximum since 2000 and constituted 66.8%. That year the structure of valued added changed. Gross operating surplus sharply increased its share in total value added (from 1% to 47%), while share of net taxes declined four times (from 24% to 6%). Labor revenues share decreased from 75% to 47% against the background of notable wage increase.

### 2.5.1 Reforms between September 2006 and August 2007

For the second half of the year 2006 conditions of an agreement On gas imports, signed in early 2006 between NSC Naftogas and Gazprom On Regulation of Gas Sector Relations<sup>33</sup> were prolonged. This gave a chance for domestic enterprises to make necessary adjustments before the next gas price increase. Later in October UkrGasEnergo and RosUkrEnergo signed a new contract to supply 55 bcm of gas in 2007 at a price of USD 130 per tcm. Even though this was a planned price increase Ukrainian consumers still do not have certainty in future gas supplies since Ukraine still does not have either a

<sup>33</sup> Which assured gas price of USD 95 per tcm





clear formula for gas price or schedule on gas price adjustment to a market level.

Price increase has weakened payment discipline, which forced government to issue a decree that regulates the procedure of disruption of gas supply for non-payers.<sup>34</sup> The document established conditions under which a supplier can either stop or limit gas supply for consumers that accumulated debts (except for households). While this is a positive step in general, lack of clearly defined grounds for gas-disruption as well as terms of resumption of gas supply leaves a room for discriminatory treatment of gas consumers.

### **Market organization**

Before 2007 regional gas distribution companies collected payments from consumers and then transferred the money to gas suppliers after deduction of transportation fee. On January 2007 this practice was changed. The CMU has amended the Rules of Gas Supply<sup>35</sup> and introduced a new procedure of payments for gas,<sup>36</sup> which however was abolished by the Presidential decree<sup>37</sup> in June 2007. According to the amended rules consumers had to make direct contracts with NSC Naftogas or UkrGasEnergo and these companies then had to pay transportation fee to regional distribution companies (oblgases). Such scheme prevents oblgases from keeping payments collected from gas consumers and gives gas suppliers instruments to influence payment discipline. On the other hand, it essentially means a step towards monopolization of the gas sector in favor of Naftogas and UkrGasEnergo.

On February 1, 2007 NSC Naftogas created a new subsidiary SC Ukgasmerezha, 100% shares of which are controlled by SC Gas Ukrayiny. Newly established enterprise is now an owner of distribution networks, which were transferred under management contracts to oblgases in 2001. The enterprise initiated revision of the previous contracts with oblgases aiming to toughen investment and payments conditions. Previous underinvestments in networks and delays in payments to gas suppliers by oblgases justifies such step. All oblgases except Chernivtsioblgas have signed new contracts. Chernivtsioblgas was deprived of access to distribution network in May 2007 because of underinvestment into the network.

### **Tariffs**

Following import gas price increase in 2007 from USD 95 per tcm to USD 130 per tcm (on Russian- Ukrainian border) a price for industrial consumers was increased from UAH 548 per tcm<sup>38</sup> in 2006 to UAH 708 per tcm<sup>39</sup> starting from the beginning of 2007<sup>40</sup>. From May 2007 gas price was raised by another UAH 24 per tcm due to inclusion of gas storage fee into the gas price by supplier - UkrGasEnergo. Inclusion of a storage fee is positive step as it reflects real total costs of gas supply.

<sup>34</sup> CMU Decree No 1687, December 8, 2006.

<sup>35</sup> CMU Decree No 1729 December 27, 2001

<sup>36</sup> CMU Decree No 31 January 16, 2007.

<sup>37</sup> Presidential Decree No552/2007 June, 25 2007.

<sup>38</sup> NSC Naftogas price

<sup>39</sup> UkrGasEnergo price

<sup>40</sup> All prices are without transportation fees and other respective payments



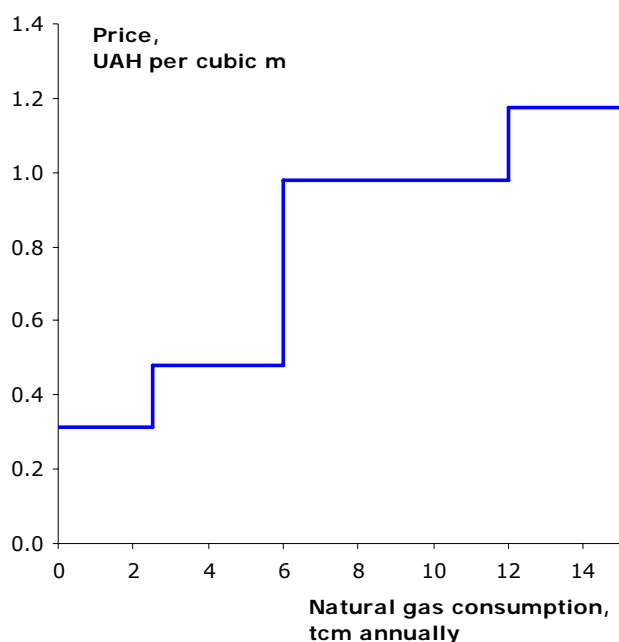


Price increase has different influence on main industrial gas consumers. It should not seriously affect metallurgic industry as the gas consists only 3-7% of their production costs and the prices on their production raised-up by 15-20% from the beginning of the year. Chemical industry is far more sensitive to price variations as gas consists 50-80% of their production costs and they operate with minimal profitability this year.

Gas tariffs for households also were changed. Namely differentiated prices based on consumption level came into effect since January 1, 2007<sup>41</sup>. According to the scheme provided, households that use less than 2500 cubic meters of gas per year pay minimum tariff at UAH 0.315 per cm. The highest tariff (UAH 1.173 per cm) is applied if more than 12000 cm is consumed.

**Figure 7**

Natural gas tariffs for households\*



Source: NERC

Note: \*for households that have installed gas meters.

Current scheme of differentiated tariffs (Figure 7) has a substantial drawback which needs further adjustment through pricing policy. We refer to consumption threshold, below which gas is sold at the lower price. It is rather high at 2,5 tcm per year. According to the information of State Statistics Committee for 2005 average household gas consumption was about 1.5 tcm per household and 70% of all households consumed less than 2.5 tcm of gas per year. Thus, the current scheme makes for securing of low prices for most consumers rather than providing availability of minimum needed gas volumes

<sup>41</sup> Decision of National Electricity Regulatory Commission of Ukraine №1672 from December 19, 2006



for poor households. Such a mechanism fails to provide investments and more rational energy consumption. Improvement of the current scheme, which would base on actual costs, could solve these problems. Alternative tariff schemes provide stricter consumption benchmarks ensuring availability for poor households through setting low prices of minimum needed gas volumes. Prices higher than the set threshold should be heavily raised to stimulate own gas-extraction, energy saving and investments into the sector.

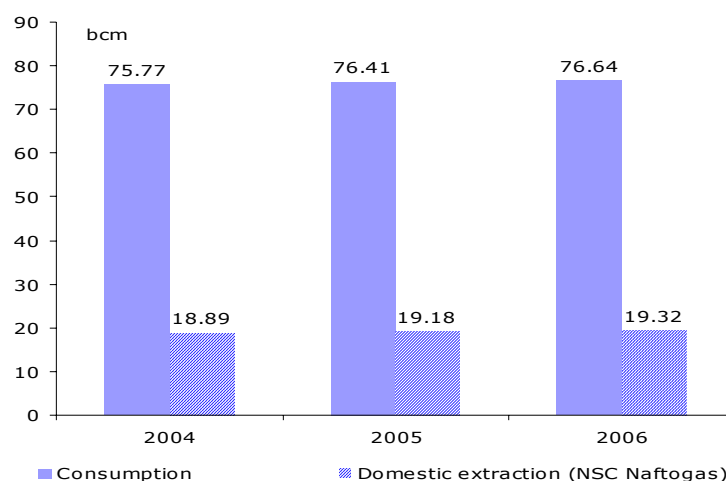
**Payment discipline** Tariff increase has led to worsening of payment discipline. For six months of 2007 NSC Naftogas collected only 84.7% of billed payments as opposed to 88.7% for the same period of 2006. District heating enterprises contributed the least (only 75.1% is paid) and the most responsible consumers are traditionally households (payments rate - 94.1%). Reacting on differentiated tariffs introduced earlier this year households reduced gas consumption by 1 bcm in the first quarter 2007 and consumed only 4.7 bcm of gas<sup>42</sup>.

### Domestic Gas Extraction

For six month of 2007 domestic gas extraction constituted 9.8 bcm, which is 3.4% less than in the same period of the 2006, and 13% less than planned. Despite long history of negotiations on gas and oil extraction in Black and Azov Seas with foreign companies investments come only very slow mainly due to significant bureaucratic impediments.<sup>43</sup>

**Figure 8**

National Gas Consumption and Extraction (by NSC Naftogas), bcm



Source: National Gas Union

Moreover, lately the CMU decrease attractiveness of Ukrainian oil and gas extraction sector for foreign investors. The Law On state budget 2007<sup>44</sup>

<sup>42</sup> After NERC information

<sup>43</sup> For instance, Vanco International Company has been nominated as winner in April 2006 to explore Prykerchynska field but final agreement has not been signed yet.

<sup>44</sup> Law On state budget 2007, No 489-V, December 19, 2006



obliges companies with joint production-sharing agreements to sell their gas to Naftogas at a far below market price<sup>45</sup>. Thus, the lack of unified state policy towards production sharing and the lack of legal guaranties towards free usage of gas extracted worsen investment climate and make Ukraine rely more on imported energy resources. This has led to decrease in indicator "natural monopoly pricing" from 2.3 to 2.0. The indicator has been slightly decreased from 2.04 to 2.03 due to changes in natural monopoly pricing policy.

### 2.5.2 Needed future reforms

Since a little has been reformed in the gas sector we suggest the government to stick to the recommendations we have presented earlier in our publications.<sup>46</sup> In short, the government should foster competition and attract private capital in the sector. There is also a need to facilitate investments into domestic gas extraction or at least to minimize administrative interference into it.

### 2.6 Water and wastewater.

The output of the water supply and water treatment had been declining from 2000 to 2002, while from 2003 it has been steadily increasing. The share of value added of the sector, distributed as compensation to employees, decreased from 76% in 2004 to 56% in 2005. The share of gross operating surplus in the sector sharply rose up to 28.5% in 2005.

**Table 8**

The role of the sector in the economy

		2000	2001	2002	2003	2004	2005
Output	UAH m	2803	2240	2178	2320	2451	3734
	% total output	0.6%	0.4%	0.4%	0.3%	0.3%	0.3%
	% industrial output	1.2%	0.8%	0.7%	0.6%	0.5%	0.6%
Value added	% GDP	1.0%	0.0%	0.0%	0.0%	0.3%	0.3%
Value added/output	%	39%	37%	37%	38%	38%	39%
Structure of value added:							
Compensation to employees	sector VA	41%	58%	60%	76%	76%	56%
Gross operating surplus, mixed incomes	sector VA	43%	25%	14%	5%	7%	28.5%
Net taxes on production and imports							
	sector VA	16%	17%	26%	19%	17%	15%
Employment*	thous people	521	526	528	529	533	527
	% total employed	3.8%	4.1%	4.3%	4.5%	4.8%	4.6%
Average wage*	UAH	371	476	562	651	767	969
Exports	UAH m	0	0	0	0	0	9
	% total exports	0	0	0	0	0	0.003%
	% sector output	0	0	0	0	0	0.002%

Source: State Statistics Committee, own calculations.

Note: \*Data for electricity, gas, and water supply.

<sup>45</sup> Domestically extracted gas are still to be sold on a domestic market exclusively for households at a predefined household price, which is lower than market price.

<sup>46</sup> More comprehensively the reforms are described in the publication IER/GAG (2006) "New Challenges for Economic Policy in Ukraine: Proposals for Immediate Actions", Kyiv



Performance of the water supply and wastewater treatment sector continues to be inefficient with unsolved problems of technical inefficiency, poor financial management, lack of capital investments, poor service delivery.

*Technical situation in the sector*

Weaknesses in the physical infrastructure, ineffective demand management and inadequate water quality are the main factors contributing to service shortages. According to the information of State Statistics Committee estimated leakages from piped water supplies is on average 37.6% with the highest levels of leakages in Sevastopol (80.6%) and Zakarpattya region (86.3%) in 2006. The length of damaged water supply pipeline networks is around 15% of the whole water pipeline networks. Lack of effective demand management also contributes to service shortages. In all regions of the country, industrial users are metered, but the extent of metering for individual households varies widely for different regions. On average 45.36% of all individual consumers has water meters and 17.3% of the rural consumers are metered.

*Competitive environment*

Binding factor for competitive environment development in communal services sphere continues to be non-profitability of enterprises of the sector because of current tariff still do not compensate costs of service delivery. Moreover, today only 5% of water supply companies have investment programs, namely only 5% of water companies make business plans of strategic development.

**2.6.1 Reforms between September 2006 and August 2007**

There were some changes in regulation and operation of the water supply and wastewater treatment sector during the period. The main changes were observed in tariff setting, which were driven by intention to bring tariffs for communal services to economically justified level. As a result, utility tariffs were revised in 23 regions of the country.

In spite of significant tariffs adjustment over the last years, water and wastewater tariffs still tend to be lower than full costs of service delivery in the country. The resulting losses are at the core of the poor financial and technical performance of water utilities and the lack of new investment. Residential consumers are still cross-subsidized by industrial ones.

While tariff increases have improved cost covering, traditionally it was done with a lack of transparency and economic justification. During 2006 the Main Control and Revision Office of Ukraine determined 255 violations of legislation concerning communal tariff setting. On the request of Antimonopoly Committee of Ukraine norms that prohibit inclusion of costs not related to service provision into tariffs were added to the documents that regulate tariff formation<sup>47</sup>.

---

<sup>47</sup> "The order of tariff formation on production, transportation, delivery of heat energy and services of centralized delivery of hot water" approved by the Cabinet of Ministry No 955, 10 July, 2006 and "The order of tariff formation on services of centralized water supply and wastewater" approved by the decision of Cabinet of Ministry No 959, 12 July, 2006



Currently Ukraine is in process of adoption of a concession law. Draft law On concessions<sup>48</sup> determines the main principles of concession arrangement, under which a public authority entrusts to a private sector operator total or partial management of main infrastructure services. Adoption of the concession law would be a positive step. However, the document is not completely compliant with internationally accepted standards<sup>49</sup>. While the analyzed draft law identifies general policy and concessions legal frameworks, describe procedure of selection of concessionaire, and project agreement, it fails to provide reliable security instruments for lenders regarding the assets and cash flow of the concessionaire. In addition, the law does not foresee any state financial support and guarantees for all parties of agreement. So, concessions legal environment in Ukraine still has much scope for improvement. The country still needs to implement further legal and institutional reforms to allow public-private partnerships to work effectively.

There were some changes in the regulatory policy of water supply industry. Thus, in spring 2007 the government reorganized the Ministry of Building, Architecture, Housing and Communal Services and established two separate bodies: the Ministry of Regional Development and Construction and the Ministry of Housing and Utility Services. Structural reorganization was conducted to guarantee investments and acceleration of market reforms. The Ministry of Housing and Utility Services has started to collaborate with international financial organizations. As a whole, creation of a separate governmental body, which regulates the network industries in the sector is a positive tendency if it conducts market reforms and attracts investments into the sector. However, during the last few years responsibility for the sector was transferred several times among governmental bodies but there were no changes in the quality of regulation.

Financial state of Ukrainian water supply companies remains to be quite poor. The total indebtedness for water supply and wastewater services by households reached UAH 1.15 bn by the beginning of the 2007 and increased by 8.9% more by June 2007. Payment collection rate reduced to 89.9 % for households in the first half 2007, while in 2005 it was more than 100% (Figure 8).

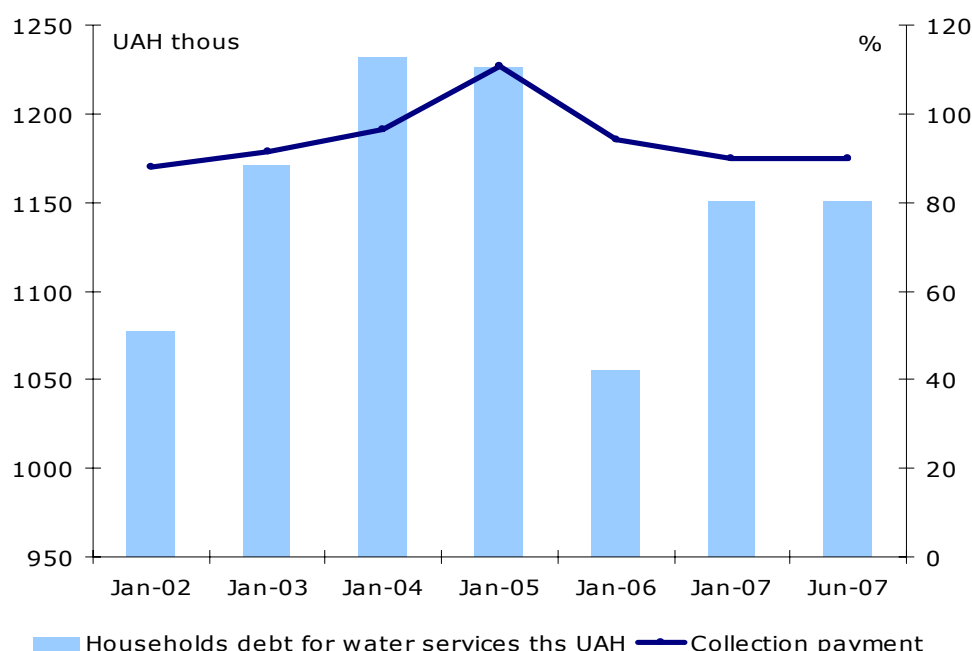
---

<sup>48</sup> Decision of Verhovna Rada № 687-V from February 22, 2007

<sup>49</sup> Those standards were developed by the United Nations Commission on International Trade Law and other organizations.

**Figure 9**

Indebtedness for water services and levels of collection payments by households



Source: State Statistics Committee, own calculations

The figure shows that as payment collections for water services decreased in 2006, the total debts of households sharply increased in January 2007 and remain stable till now.

Thus, the overall indicator has not changed since the positive effect from improved natural monopoly pricing was eliminated by the worsening of payment discipline in the sector. The value of indicator has been decrease to 1.60.

### 2.6.2 Needed future reforms.

Despite important market reforms were launched, Ukraine still faces significant infrastructure challenges. These include: tariffs that do not reflect costs; extensive cross-subsidization between different consumer groups, lack of commercial discipline in relation to poor revenue collection and others.

Implementation of market reforms should be directed at improving operating and financial performance of the sector, improving service quality and implementing adequate investments to resolve deficiencies.

Effective tariff reform requires extension of metering if more efficient water use is to be encouraged.

And the effective regulation is the important part of the strategy to address these challenges. Regulators need to promote competition and ensure that all operators have access to infrastructure networks on equal terms.



## Appendices

### Appendix 1 Infrastructure Indicator evaluation

	Indicator	Telecom										Railways										Roads									
		00-N	01-M	01-N	02-M	02-N	03-M	04-J	05-J	06-J	07-A	00-N	01-M	01-N	02-M	02-N	03-M	04-J	05-J	06-J	07-A	00-N	01-M	01-N	02-M	02-N	03-M	04-J	05-J	06-J	07-A
	<b>EBRD indicator</b>	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
	<b>IERPC indicator</b>	2.31	2.36	2.24	2.22	2.26	2.29	2.41	2.40	2.50	2.53	1.29	1.39	1.49	1.54	1.56	1.79	1.73	1.78	1.80	1.79	2.16	2.19	2.19	2.19	2.21	2.32	2.30	2.29	2.37	2.37
1.0	Commercialization and privatization	2.0	2.0	1.9	1.9	2.0	2.1	2.1	2.1	2.1	2.1	1.3	1.4	1.5	1.5	1.6	1.8	1.8	1.8	1.8	1.8	2.0	2.0	2.0	2.1	2.1	2.2	2.3	2.3	2.3	2.3
1.1	Ownership	2.0	2.0	2.0	2.0	2.1	2.2	2.1	2.1	2.1	2.2	1.2	1.3	1.3	1.3	1.5	1.7	1.6	1.6	1.6	1.6	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.1	2.1
1.1.1	Natural monopoly	1.3	1.3	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
1.1.2	Potentially competitive businesses	2.7	2.7	2.3	2.3	2.7	3.0	2.7	2.7	3.0	3.3	1.3	1.3	1.3	1.3	1.7	2.0	2.0	2.0	2.0	2.0	2.7	2.7	2.7	2.7	2.7	2.7	3.0	3.0	3.0	3.0
1.1.3	Ancillary businesses	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	1.3	1.7	1.7	1.7	1.7	2.0	1.7	1.7	1.7	1.7	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3
1.2	Operation	1.8	1.9	1.7	1.7	1.7	1.8	2.0	2.0	2.0	2.0	1.2	1.4	1.6	1.7	1.7	1.8	1.9	1.9	1.9	1.9	1.6	1.8	1.8	1.9	1.9	2.0	2.2	2.1	2.1	2.1
1.2.1	Natural monopoly	1.7	2.0	1.7	1.7	1.7	1.7	2.0	2.0	2.0	2.0	1.3	1.3	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.3	1.7	1.7	2.0	2.0	2.0	2.0	2.0	2.0	2.0
1.2.2	Natural monopoly planning and	2.0	2.0	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.0	1.3	1.3	1.3	1.7	2.0	2.3	2.3	2.3	2.3	1.7	1.7	1.7	1.7	1.7	2.0	2.3	3.0	3.0	3.0
1.2.3	Private sector participation in service	1.7	1.7	1.7	1.7	1.7	2.0	2.3	2.3	2.3	2.3	1.3	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	2.0	2.0	2.0	2.0	2.3	2.3	2.3	2.3	2.3
1.3	Organizational structure	2.2	2.2	2.1	2.1	2.1	2.2	2.2	2.1	2.1	2.1	1.4	1.6	1.6	1.6	1.7	1.8	1.8	1.8	1.8	1.8	2.3	2.3	2.3	2.3	2.5	2.6	2.6	2.6	2.6	2.6
1.3.1	Separation of natural monopoly and	2.3	2.3	2.0	2.0	2.0	2.3	2.3	2.0	2.0	2.0	1.0	1.0	1.0	1.0	1.3	1.7	1.7	1.7	1.7	1.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7
1.3.2	potentially competitive businesses	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	1.3	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
1.3.3	Separation of ancillary businesses	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	1.3	1.3	1.3	1.3	1.7	2.0	2.0	2.0	2.0	2.0
1.3.3	Decentralization	2.6	2.6	2.6	2.7	2.7	2.9	2.9	2.9	2.9	2.8	1.4	1.5	1.7	1.8	1.8	2.1	2.0	2.0	2.1	2.1	2.2	2.1	2.1	2.0	2.1	2.1	2.0	2.0	2.1	2.1
2.0	Tariff reform	2.3	2.4	2.4	2.4	2.6	2.6	2.9	2.9	3.0	2.9	1.0	1.0	1.0	1.0	1.0	1.8	1.7	1.7	1.9	2.0	2.0	2.0	2.0	2.0	2.0	2.1	1.9	2.0	2.0	2.0
2.1	Structure of tariffs	2.0	2.0	2.0	2.0	2.0	2.0	2.3	2.3	2.3	2.3	1.0	1.0	1.0	1.0	1.0	1.7	1.3	1.3	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7
2.1.1	Political vs. regulated operators	2.3	2.3	2.3	2.3	2.7	2.7	3.0	3.0	3.3	3.3	1.0	1.0	1.0	1.0	1.0	2.0	2.0	2.0	2.3	2.3	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7
2.1.2	Natural monopoly pricing	2.7	3.0	3.0	3.0	3.0	3.0	3.3	3.3	3.3	3.0	1.0	1.0	1.0	1.0	1.0	1.7	1.7	1.7	1.7	2.0	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7
2.1.3	Potentially competitive businesses pricing	3.0	3.1	3.1	3.1	3.2	3.2	3.3	3.3	3.3	3.2	1.7	1.9	2.3	2.6	2.6	2.6	2.6	2.6	2.4	2.5	2.3	2.3	2.2	2.3	2.3	2.3	2.3	2.3	2.3	2.3
2.2	Payments	3.0	3.0	3.0	3.0	3.3	3.3	3.3	3.3	3.3	3.3	1.3	1.7	2.3	2.7	2.7	2.7	2.7	2.7	2.7	2.7	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
2.2.1	Intra-industry payments ratios	3.0	3.3	3.3	3.3	3.3	3.3	3.7	3.7	3.7	3.7	2.0	2.3	2.7	3.0	3.0	3.0	3.0	3.0	3.0	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7
2.2.2	Final consumers collection rates	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	1.7	1.7	2.0	2.0	2.0	2.0	2.0	2.0	2.0	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7
2.2.3	State indebtedness	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	1.7	1.7	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9
2.3	State funding	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	1.3	1.3	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	2.0	2.0	2.0	1.7	1.7	1.7	1.7	1.7	1.7	1.7
2.3.1	Subsidies level	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
2.3.2	Subsidies procedure	2.4	2.4	2.2	2.1	2.1	2.1	2.3	2.3	2.5	2.6	1.2	1.2	1.3	1.3	1.3	1.6	1.4	1.6	1.6	1.6	2.4	2.4	2.4	2.5	2.5	2.7	2.6	2.6	2.7	2.7
3.0	Regulatory and institutional development	2.4	2.6	2.3	2.2	2.2	2.2	2.6	2.6	2.7	2.6	1.3	1.4	1.5	1.5	1.5	1.8	1.8	1.8	1.8	1.8	2.0	2.1	2.1	2.2	2.2	2.3	2.5	2.5	2.5	2.5
3.1	Effective regulatory institution	2.7	2.7	2.3	2.3	2.3	2.3	2.7	2.7	2.7	2.7	1.3	1.3	1.3	1.3	1.3	1.7	1.7	1.7	1.7	1.7	2.3	2.3	2.3	2.3	2.3	2.7	2.7	2.7	2.7	2.7
3.1.1	Management selection for competitive	2.3	2.7	2.3	2.3	2.3	2.3	2.7	2.7	2.7	2.7	1.0	1.0	1.3	1.3	1.3	1.7	1.7	1.7	1.7	1.7	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
3.1.2	Independence of regulator, insulation	2.3	2.3	2.3	2.0	2.0	2.0	2.3	2.3	2.7	2.7	1.7	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	1.7	2.0	2.0	2.3	2.3	2.3	2.7	2.7	2.7	2.7
3.1.3	Transparency of regulation	2.3	2.3	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.3	1.7	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7
3.2	Access regulation	2.3	2.3	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.3	1.0	1.0	1.0	1.0	1.0	1.3	1.0	1.3	1.3	1.3	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7



## Appendix 1

## Infrastructure Indicator evaluation (continuation)

	Indicator	Power						Gas						Water and Wastewater																	
		00-N	01-M	01-N	02-M	02-N	03-M	04-J	05-J	06-J	07-A	00-N	01-M	01-N	02-M	02-N	03-M	04-J	05-J	06-J	07-A	00-N	01-M	01-N	02-M	02-N	03-M	04-J	05-J	06-J	07-A
	<b>EBRD indicator</b>	3.0	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3		1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7		1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	
	<b>IERPC indicator</b>	2.37	2.49	2.51	2.51	2.49	2.60	2.56	2.56	2.57	2.58	1.89	2.04	2.09	2.06	2.05	2.04	2.06	2.06	2.04	2.03	1.38	1.42	1.42	1.47	1.51	1.57	1.61	1.61	1.61	1.60
1.0	Commercialization and privatization	2.4	2.5	2.5	2.5	2.5	2.7	2.6	2.6	2.6	2.6	1.6	1.7	1.8	1.8	1.7	1.7	1.7	1.7	1.7	1.7	1.3	1.3	1.3	1.5	1.5	1.5	1.6	1.6	1.6	1.6
1.1	Ownership	2.2	2.3	2.4	2.4	2.4	2.6	2.6	2.6	2.6	2.6	1.8	1.8	1.9	1.9	1.7	1.6	1.6	1.6	1.6	1.6	1.1	1.1	1.1	1.3	1.3	1.5	1.5	1.6	1.6	1.3
1.1.1	Natural monopoly	3.0	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.0	1.0	1.0	1.0	1.0	1.3	1.3	1.3	1.3	1.3
1.1.2	Potentially competitive businesses	2.3	2.3	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.0	1.7	1.7	1.7	1.7	1.7	1.0	1.0	1.0	1.0	1.3	1.3	1.3	1.3	1.3	1.3
1.1.3	Ancillary businesses	1.3	1.3	1.3	1.3	1.3	1.7	1.7	1.7	1.7	1.7	1.3	1.3	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3
1.2	Operation	2.5	2.6	2.6	2.6	2.6	2.8	2.8	2.8	2.8	2.8	1.4	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.3	1.3	1.3	1.7	1.7	1.7	1.8	1.8	1.8	1.8
1.2.1	Natural monopoly	3.0	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	1.7	1.7	1.7	2.0	2.0	2.3	2.3	2.3	2.3	2.3
1.2.2	Natural monopoly planning and investment decisions	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	1.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	1.0	1.0	1.0	1.3	1.3	1.3	1.3	1.3	1.3	1.3
1.2.3	Private sector participation in service	1.7	1.7	1.7	1.7	1.7	2.3	2.3	2.3	2.3	2.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.7	1.7	1.7	1.7	1.7	1.7	1.7
1.3	Organizational structure	2.5	2.5	2.5	2.5	2.5	2.7	2.4	2.4	2.4	2.4	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.6	1.6	1.6	1.7	1.7	1.7	1.8	1.8	1.8	1.8
1.3.1	Separation of natural monopoly and	3.7	3.7	3.7	3.7	3.7	3.7	3.0	3.0	3.0	3.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	1.0	1.0	1.0	1.3	1.3	1.3	1.3	1.3	1.3	1.3
1.3.2	Separation of ancillary businesses	1.3	1.3	1.3	1.3	1.3	1.7	1.7	1.7	1.7	1.7	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
1.3.3	Decentralization																				2.7	2.7	2.7	2.7	2.7	2.7	3.0	3.0	3.0	3.0	
2.0	Tariff reform	2.2	2.5	2.6	2.6	2.6	2.7	2.7	2.7	2.7	2.8	2.0	2.2	2.3	2.3	2.3	2.3	2.4	2.4	2.3	2.3	1.7	1.8	1.8	1.8	2.0	2.0	2.0	2.0	2.0	2.0
2.1	Structure of tariffs	2.7	2.7	2.7	2.7	2.7	2.9	2.9	2.9	3.0	3.1	2.2	2.2	2.2	2.2	2.1	2.1	2.1	2.1	2.1	2.0	1.3	1.3	1.3	1.3	1.4	1.4	1.4	1.4	1.4	1.4
2.1.1	Political vs. regulated operators	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	1.0	1.0	1.0	1.0	1.0	1.3	1.3	1.3	1.3	1.3
2.1.2	Natural monopoly pricing	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	3.0	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.0	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7
2.1.3	Potentially competitive businesses pricing	2.3	2.3	2.3	2.3	2.3	3.0	3.0	3.0	3.0	3.0	2.3	2.3	2.3	2.3	2.0	2.0	2.0	2.0	2.0	2.0	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3
2.2	Payments	1.9	2.8	2.9	2.9	3.0	3.0	3.0	3.0	3.0	3.0	1.9	2.7	3.0	2.8	3.0	3.0	3.2	3.2	3.0	3.0	1.9	2.3	2.3	2.3	2.7	2.8	2.8	2.7	2.7	2.7
2.2.1	Intraindustry payments ratios	2.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	2.0	3.0	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.0	2.0	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3
2.2.2	Final consumers collection rates	2.0	3.0	3.3	3.3	3.7	3.7	3.7	3.7	3.7	3.7	2.0	2.7	3.3	2.7	3.3	2.7	3.3	3.3	3.0	3.0	2.0	2.3	2.3	2.3	2.3	3.0	3.3	3.3	3.3	3.0
2.2.3	State indebtedness	1.7	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	1.7	2.3	2.3	2.3	2.3	3.0	3.0	3.0	3.0	3.0	1.7	2.3	2.3	2.3	2.7	2.7	2.7	2.7	2.7	2.7
2.3	State funding	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9
2.3.1	Subsidies level	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7
2.3.2	Subsidies procedure	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
3.0	Regulatory and institutional development	2.5	2.5	2.5	2.5	2.4	2.4	2.4	2.4	2.4	2.4	2.1	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	1.1	1.1	1.1	1.2	1.2	1.2	1.2	1.2	1.2	1.2
3.1	Effective regulatory institution	2.7	2.7	2.7	2.7	2.4	2.6	2.6	2.6	2.6	2.6	1.9	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	1.2	1.2	1.2	1.3	1.4	1.4	1.4	1.4	1.4	1.4
3.1.1	Management selection for competitive	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	1.3	1.3	1.3	1.3	1.7	1.7	1.7	1.7	1.7	1.7
3.1.2	Independence of regulator, insulation	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	1.3	1.3	1.3	1.3	1.7	1.7	1.7	1.7	1.7	1.7
3.1.3	Transparency of regulation	3.0	3.0	3.0	3.0	2.7	2.7	2.7	2.7	2.7	2.7	1.3	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.0	1.0	1.0	1.0	1.3	1.3	1.3	1.3	1.3	1.3
3.2	Access regulation	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0





## Appendix 2

### General description of the infrastructure indicators

This appendix presents a brief description of the criteria for scoring each indicator.

#### 1 Commercialisation and privatisation

##### 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 corporatised, privatised and newly constructed private fixed networks in the total length of networks. The maximum score is reached with private ownership of all networks.

1.1.2 **Potentially competitive businesses.** 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, corporatisation and privatisation 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 businesses.** 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, corporatisation and privatisation, or the increase 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 reorganisation into an independent state agency or a company, and the establishment of an independent regulator. The maximum score is assigned if a private company manages the natural monopoly, and only an independent regulator, established by law, can intervene.

1.2.2 **Natural monopoly planning and investment decisions.** A score of one implies political interference in making 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 realised 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 Organisational structure

- 1.3.1 **Separation of natural monopoly and potentially competitive businesses.** A score of one means no separation between the infrastructure and the service providers' managements, as well as separation 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 **Decentralisation.** A score of one implies no or minimal decentralisation and increases with increasing decentralisation. 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.

## 2.0 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-subsidisation. The score increases as the tariff approaches the long-run marginal cost reflecting cost covering levels, with cross-subsidisation 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 are approaching zero.
- 2.2.2 **Final consumer collection rates.** A score of one means low revenue collection from final consumers (households, companies, budgetary organizations) and constantly accumulating arrears. The score increases as progress with revenue collection is made and services are fully paid for. Apart from a non-linear pattern of evaluation grades with respect to payment percentage improvements in each sector, there is non-homogeneity of the patterns across sectors. The six sectors were divided into two groups in accordance with the potential efforts needed to reach higher payment levels. Telecommunications and roads represent the first group, where high levels of payments are relatively easy to achieve. The railroad, power, gas, and water supply sectors were put into the second group, where comparatively small improvements can be defined as considerable successes.
- 2.2.3 **State indebtedness.** A score of one corresponds to growing arrears for state compensations to privileged consumers. The score improves 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 subsidised by the state in an explicit or implicit form. Both the depth of the subsidisation 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 for competitive businesses.** A score of one means that state officials appoint the management. The score increases when the management is elected by the 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 regulations.** A score of one implies an absence of legislation defining clear rules of the game for businesses, and 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 an independent regulator alone regulates the performance of the natural monopolies in an industry 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, finally determined by market mechanisms.



## **Appendix 3. Explanations for the infrastructure indicator evaluations given in Appendix 1 (September 2006 - August 2007)**

### **TELECOMMUNICATIONS**

#### **1.0 Commercialisation and privatisation**

##### **1.1 Ownership**

- 1.1.1 The state-owned telecommunications incumbent "Ukrtelecom" still controls about 72%<sup>50</sup> of the fixed-line telephone market and owns the largest primary network. The indicator remains unchanged at 1.7.
- 1.1.2 Growing competition signifies a positive development in the market. There are some improvements in the licensing of telecommunications services since the NCRC grants the licenses to operators that develop IP-telephony, CDMA, WiMAX, etc thus transforming the situation into the legal framework and promoting use of new technologies, which are alternative to fixed-line telephony. Hence the score has been slightly improved to 3.3.
- 1.1.3 The ownership structure in the ancillary businesses has not changed significantly. The indicator remains at 2.0.

##### **1.2 Operation**

- 1.2.1 The indicator remained unchanged at 2.0.
- 1.2.2 The adoption of financial plan for 2007 was politically influenced, and Ukrtelecom's calculations regarding future profit were not considered. At the same time, financial audit conducted by the Main Control and Revision Office of Ukraine revealed misuse of investment funds for 3G telecommunications development in 2006 from the side of company's management. The indicator remains at 1.7.
- 1.2.3 The private sector continues to increase its participation in many competitive segments and service contracts. E.g., Ukrtelecom JSC has signed an agreement with Nokia and Huawei for the supply of 3G core and radio network to cover Ukraine. The indicator remained at 2.3.

##### **1.3 Organizational structure**

- 1.3.1 There are no significant changes. The indicator remains at 2.0.
- 1.3.2 The organizational structure of the ancillary businesses remained unchanged, and so did the indicator.
- 1.3.3 The indicator remains unchanged at 2.3.

#### **2.0 Tariff reform**

---

<sup>50</sup> The NCRC



## **2.1 Structure of tariffs**

- 2.1.1 According to the amendments to the law "On telecommunications", the list of price-regulated public services now includes local phone services only. So, they actually increase monopolistic power of "Ukrtelecom" in establishing prices for fixed-line services. In particular, new regulation allowed this company to raise tariffs for calls from fixed lines on mobile phones since January. Taking into consideration the controversial effect of this event, the indicator remains at the same level of 2.3.
- 2.1.2 The level of cross-subsidization is reduced slightly since the tariffs for domestic calls were increased and the price of long-distance calls was decreased. But the indicator is the same as it was raised due to this reason last time.
- 2.1.3 The regulation on interconnections and inter-payments allows avoiding deviations from equilibrium pricing in many cases, but it does not deal with the issue of equal level of interconnect tariffs between dominant operators and the others. The indicator is decreased from 3.3 to 3.0.

## **2.2 Payments**

- 2.2.1 There were no major developments in intra-industry payments, though "Ukrtelecom" paid back part of its arrears to suppliers. The indicator has remained at 3.3 level.
- 2.2.2 The indicator remains unchanged at 3.7.
- 2.2.3 On the date of January 1, 2007 the budget institutions had arrears to "Ukrtelecom" at the level of UAH 187 m, including UAH 64 m for state compensations to privileged consumers, which is UAH 25 m more yoy. The state's indebtedness indicator is reduced to 2.7.

## **2.3 State funding**

- 2.3.1 The level of state subsidization is planned to decrease through the increase on tariffs. The indicator remains at 2.7.
- 2.3.2 The subsidies procedure has not experienced significant changes during monitored period, and the indicator remains unchanged.

## **3 Regulatory and institutional development**

### **3.1 Effective regulatory institutions**

- 3.1.1 The management selection procedure for competitive businesses has not changed, though the State Property Fund tried to initiate changes in the supervisory board of "Ukrtelecom" according to the corporate governance legislation. The shareholders' meeting has not been held since 2006, so the current supervisory board is not functioning according to the legal framework, what can evoke some negative consequences for both the government as shareholder and company's operations. The indicator was reduced to 2.3.



- 3.1.2 The political and financial independence of the NCRC remains rather complicated issue. The indicator remains at 2.7 level.
- 3.1.3 The NCRC has auctioned frequencies spectrum for the first time. But the decision-making process is not always public and transparent. So, the indicator remains unchanged.
- 3.2 Access pricing regulation method.** The NCRC adopted new order of mutual payments between telecommunications operators for services of access, which slightly improved the situation in telephony. The indicator was raised from 2.3 to 2.7.

## **RAILWAYS**

### **1.0 Commercialisation and privatisation**

#### **1.1 Ownership**

- 1.1.1 The basic rail network is 100% state owned. Sales/transfers of branch lines take place occasionally. The indicator has not been changed.
- 1.1.2 Passenger and freight transportation are 100% state-owned. Forwarding enterprises are mostly private. Freight railway cars are partially in private ownership. The government and the State Railways Administration initiated the creation of regional alliances with local authorities and private investors to operate commuter railways services. The indicator has not been changed.
- 1.1.3 The construction, maintenance and service enterprises are corporatized, but remained state-owned. The indicator has not been changed.

#### **1.2 Operation**

- 1.2.1 The railways are regulated by the State Railways Administration, which is integrated into the Ministry of Transport and Communications. The indicator has not been changed.
- 1.2.2 The State Railways Administration strives for operational efficiency and profitability of the industry. UZ now issues tenders for its projects and diversifies funding sources for their implementation. The indicator has not been changed.
- 1.2.3 Rail line construction and rolling stock maintenance is provided by state enterprises and joint stock ventures. At the same time UZ tries to involve private sector in catering and maintenance services. The indicator remained the same.

#### **1.3 Organisational structure**

- 1.3.1 The railway infrastructure, passenger and freight transportation services are integrated within UZ, but keep separate accounts. Cross-subsidization is transparent, separate accounts for freight and



passenger transportation are available. The indicator has not been changed.

1.3.2 UZ has been charged with the management of more ancillary businesses. The indicator remained 1.7.

1.3.3 The railways are split into 6 regional companies and some ancillary enterprises. They set tariffs for a range of services, except for transportation (e.g. prices for use of bed linen, tariffs for carriage feed). The indicator has not been changed.

## **2.0 Tariff reform**

### **2.1 Structure of tariffs**

2.1.1 There is a plan of tariffs adjustment to the cost-covering level. However, the tariff-setting procedure remains non-transparent and political interference is still possible. The indicator remained 1.7.

2.1.2 The tariffs do not precisely reflect the infrastructure and rolling stock operating costs; however overall, the costs are covered. Cross-subsidisation of passenger transportation by freight transportation is reduced. The indicator has not been changed.

2.1.3 Tariffs for both freight and passenger transportation are having been adjusted to the cost-covering level. In autumn 2006 tariffs for local services in trains with diesel engine were temporary reduced due to fall in oil prices. The indicator has been increased from 1.7 to 2.0.

### **2.2 Payments**

2.2.1 Intra-industry payments are stable (but arrears of UZ to other contractors are growing). The indicator has not been changed.

2.2.2 Monetary payments are almost 100%, except for payments for commuter rail services. Free-rider problem needs to be dealt with and undermines financial performance of UZ. The indicator has been reduced from 3.0 to 2.3.

2.2.3 State subsidies are provided partially at levels set in the central state budget and almost not by local authorities. The indicator has been reduced from 2.0 to 1.7.

### **2.3 State funding**

2.3.1 The government still relies on (privileged) passenger transportation funding at the expense of UZ. The indicator has not been changed.

2.3.2 Subsidies are paid to the railways (service provider). The indicator has not been changed.

## **3.0 Regulatory and institutional development**

### **3.1 Effective regulatory institutions**

3.1.1 The Cabinet of Ministers appoints the top management, although the government body operating the railways is formally independent.





Management decisions are increasingly insulated from political interference. The indicator has not been changed.

- 3.1.2 The railways regulator is part of the government and is integrated with the rail line operator. The indicator has not been changed.
- 3.1.3 Tariffs for both freight and passenger transportations are fixed by legislation. A transport tariff policy is being developed to increase the transparency and efficiency of tariff setting procedures. The indicator has not been changed.
- 3.2 Access pricing regulation method.** Access is regulated by government permission. The index remained at 1.3.

## **ROADS**

### **1.0 Commercialisation and privatisation**

#### **1.1 Ownership**

- 1.1.1 Roads of the public use are 100% in state and communal ownership. The indicator has not been changed.
- 1.1.2 Freight transportation is mostly provided by private companies. The share of private sector in passenger transportation is increasing. The indicator has not been changed.
- 1.1.3 The social infrastructure, services, and automobile maintenance enterprises are mostly private. Publicly owned companies provide most of the road maintenance and construction (at least as main contractors). At the same time, there are plans of Ukravtodor to sell construction companies. The indicator has not been changed.

#### **1.2 Operation**

- 1.2.1 Regulation and management of the road network are separated from each other. The regulatory body (State Road Service) is the principal managing body of the State Joint Stock Company "Avtomobilny dorogy Ukrainy". The indicator has not been changed.
- 1.2.2 More efforts were put to ensure development of public-private partnership projects within legal framework. The indicator has not been changed.
- 1.2.3 Road maintenance is provided mostly by local subsidiaries of the State JSC "Avtomobilny dorogy Ukrainy". And construction work is sometimes done by private contractors. The indicator has not been changed.

#### **1.3 Organisational structure**

- 1.3.1 Roads management is separated from freight and passenger transportation services. The indicator has not been changed.
- 1.3.2 Road construction and maintenance are separated from transportation; some services are contracted out. The indicator has not been changed.



- 1.3.3 Roads are financed and operated at both central and regional levels. Municipal authorities can make investment decisions on local road construction using the vehicle tax funds they collect. But in practice they usually get less from Road fund than they collect. The indicator has not been changed.

## **2.0 Tariff reform**

### **2.1 Structure of tariffs**

- 2.1.1 The government and local authorities approve tariffs for passenger transportation. The indicator has not been changed.
- 2.1.2 Officially road funding derives from an excise tax and import duty on mineral oils and vehicles. And they are directed towards road construction and maintenance. The indicator has not been changed.
- 2.1.3 The level of tariffs is still can not be considered as cost-effective. And in autumn 2006 some private transportation companies reduced price after fall in petroleum price on request of the Antimonopoly Committee of Ukraine. The indicator remains the same.

### **2.2 Payments**

- 2.2.1 In 2006 bills receivable of Ukravtodor as well as its arrears (mainly due to increase of credits) increased significantly. The State JSC "Avtomobilni dorogy Ukrayiny" has finished 2006 with net losses, but it has had net profit (UAH 4.5 m) for the first half of 2007. The indicator was not changed.
- 2.2.2 Payments are mostly monetary but the enterprises that conduct roads maintenance and construction also receive capital transfers from the budget. Compensation for privileged passenger transportation remains significant issue. The indicator has not been changed.
- 2.2.3 Despite substantial increase of investments in road in recent years, financing remains insufficient, taking into consideration the poor state of the sector and preparations for the Euro 2012. However, starting from the year 2006, the budget envisages full financing in compliance with the program of sector development. The indicator remains at 2.3.

### **2.3 State funding**

- 2.3.1 The number of privileged passengers remains high, and compensation levels from the budget are inadequate. The indicator has not been changed.
- 2.3.2 Subsidization of privileged passengers is frequently put onto the shoulders of service providers. The indicator is the same.

## **3.0 Regulatory and institutional development**

### **3.1 Effective regulatory institutions**

- 3.1.1 The management of the State Road Service is appointed by the government. The indicator has not been changed.



- 3.1.2 The State Road Service of Ukraine, the regulatory body in the sector and department of the MTCU, also includes the State JSC "Avtomobilni dorogy Ukrainy", infrastructure operator. The indicator has not been changed.
- 3.1.3 The MTCU does not support the idea of independent transport regulator creation. That's why this process is slowed. The indicator was not changed.
- 3.2 Access pricing regulation method.** Access is regulated by licensing. Tenders for serving routes were introduced. There are intentions of the MTCU to increase price of license for passenger and freight transportations 10 times (from UAH 340 to UAH 3400), but they are not supported by the Antimonopoly Committee of Ukraine. The indicator is the same.

## **POWER**

### **1.0 Commercialisation and privatisation**

#### **1.1 Ownership**

- 1.1.1 The controlling stakes in 13 (out of 27) regional distribution companies (oblenergos) were sold. All of the stakes in the distribution companies still belonging to the state were united in the Energy Company of Ukraine holding. The CMU has decided to privatize minor share stakes in 6 oblenergos. The indicator has not been changed.
- 1.1.2 The nuclear, hydro and fossil fuel generating plants were separated into different companies. The nuclear and hydro generating plants remain 100% state property, while three fossil fuel generating companies were partially privatised, however the state remained the major owner. All of the state stakes in power plants, with the exception of the nuclear stations, where united in the Energy Company of Ukraine holding. The indicator has not been changed.
- 1.1.3 Social infrastructure, construction and maintenance are still treated as part of the natural monopoly. The indicator has not been changed.

#### **1.2 Operation**

- 1.2.1 The regional distribution companies are corporatized, some of them are in private hands, all are regulated by the NERC. The grid is operated as a part of Ukrenergo. The indicator has not been changed.
- 1.2.2 Decision-making is still politically influenced. The indicator has not been changed.
- 1.2.3 Construction and maintenance are managed by the oblenergos. Private sector participation gradually increases. The indicator has not been changed.

#### **1.3 Organisational structure**

- 1.3.1 Generation, transmission and distribution are separated into independent companies. State stakes in the power sector, with the exception of nuclear stations, are united in Energy Company of Ukraine. The indicator has not been changed.



1.3.2 There is a minimal degree of separation. The private sector is marginally involved. The indicator has not been changed.

1.3.3 Decentralisation is not a high priority in this industry.

## **2.0 Tariff reform**

### **2.1 Structure of tariffs**

2.1.1 The NERC become more independent in its decisions. Cost-effectiveness of households tariffs slightly improved. The NERC still acts on the basis of decrees of the Cabinet of Ministers. The indicator has not been changed.

2.1.2 Cross-subsidisation of households by industrial consumers decreases. Three open auctions on power export have been organized. The indicator was increased from 3.0 to 3.3.

2.1.3 Real competition at the wholesale power market is noted. Power generating companies compete by bidding. At the same time the absence of modern meters allowing instantaneous consumption measurements prevents the customers' consumption to be billed according to the load curve. WEM is preparing for transformation to operate on bilateral contractual basis. The indicator has not been changed.

### **2.2 Payments**

2.2.1 The situation is stable, but some settlements are still made in non-cash form. The indicator has not been changed.

2.2.2 The average level of cash payments by the oblenenergoss to the wholesale electricity market is stable. The indicator has not been changed.

2.2.3 The state budget foresees 100% payment for consumed power but the actual payments are below this level.

### **2.3 State funding**

2.3.1 The poorest people are subsidised, the number of privileged categories remains substantial. The indicator has not been changed.

2.3.2 Subsidies are paid to the oblenenergoss. The indicator has not been changed.

## **3.0 Regulatory and institutional development**

### **3.1 Effective regulatory institutions**

3.1.1 The management is appointed by the state. The indicator has not been changed.

3.1.2 The NERC is governed by decrees issued by the President and the Cabinet of Ministers, there is no law defining its rights and obligations. The indicator has not been changed.

3.1.3 More transparency has been introduced into the distribution of moneys for power supplied to the wholesale market. The indicator has not been changed.



**3.2 Access pricing regulation method.** Access is regulated by the NERC, but without a strong legislative base. The indicator has not been changed.

## **GAS**

### **1.0 Commercialisation and privatisation**

#### **1.1 Ownership**

- 1.1.1 The trunk pipeline and the distribution net are 100% state property, however, NAK Naftogaz is corporatized, minor shares of some regional gas distribution companies (oblgas) are owned by private parties. The indicator has not been changed.
- 1.1.2 The share of state ownership in gas extraction is very high. The company "Vanco V.I. Ltd" got a permission to extract gas at Prikerchenskiy region. Naftogaz also signed an agreement with the company "Shell Exploration and Production Ukraine" and CBM on collaboration in gas extraction activity. All the import to Ukraine is conducted by RUE (which is 50% owned by "Gazprom" and 50% by private persons). RUE supplies gas to Ukraine according to agreements signed at national level. The indicator has not been changed.
- 1.1.3 The presence of the second company UkrGasEnergo at the market increases the role of gas traders. The construction, maintenance and service efforts are carried out mainly by NAK Naftogaz, but unrelated businesses were split off. A private company is carrying out some contracts for trunk pipeline modernisation. The indicator has not been changed.

#### **1.2 Operation**

- 1.2.1 NAK Naftogaz is subject to supervision by the government and the President; it can however operate as a market company. The indicator has not been changed.
- 1.2.2 The commercial objectives become to be more important. NSC initiated tariff adjustment to cost-covering level. The company declared net profit in first quarter of 2007. The indicator remained unchanged.
- 1.2.3 Some private companies are involved to repair and maintenance of the pipelines. The indicator has not been changed.

#### **1.3 Organisational structure**

- 1.3.1 NAK Naftogaz was split into extraction, transportation and sales. The indicator has not been changed.
- 1.3.2 There is a minimal degree of separation. The indicator has not been changed.
- 1.3.3 Decentralisation is not foreseen for this industry.

### **2.0 Tariff reform**

#### **2.1 Structure of tariffs**

- 2.1.1 The government interference in tariff settings is substantial. The indicator has not been changed.



2.1.2 Industrial enterprises have possibility to choose their gas supplier; NERC determines the price of transportation. Starting early 2007 differentiated tariff for households has been introduced. The CMU has obliged extraction companies with state participation 50% and more to sell their gas exclusively to Naftogas Ukrayiny at a lower than market price. The indicator has been decreased to 2.0.

2.1.3 NERC sets ceiling prices on natural gas for final consumers according to a Cabinet of Ministers' decree. The indicator has not been changed.

## **2.2 Payments**

2.2.1 The price for transit of gas and payment for the supply of gas to Ukraine was separated. Currently, gas transit fee is paid in cash. The indicator was not changed.

2.2.2 Total payment rate with NSC Naftogas decreased from 88.7 to 84.7% (for the first half of 2007). Total debt slowly rose up. The indicator was not changed.

2.2.3 The state remains among the debtors; Naftogaz bears the costs of supplying gas to households. The Budget Law for 2007 No 489-V envisages only partial covering expenses made by NSC Naftogas in 2006 to provide households with import price. The indicator has not been changed.

## **2.3 State funding**

2.3.1 The poorest households are subsidised. The increase of tariffs for population was introduced with a significant protest by people because of oblgases' abuses with 'consuming history'. NERC Decree On returning overpayments still on drafting stage. The indicator has not been changed.

2.3.2 Subsidies are paid to the public sector enterprises. The state budget 2006 still does not envisage higher financing of subsidies caused by gas price increase. The indicator has not been changed.

## **3.0 Regulatory and institutional development**

### **3.1 Effective regulatory institutions**

3.1.1 The government appoints the management, although NAK Naftogaz is formally independent. The indicator has not been changed.

3.1.2 NAK Naftogaz is subject to government control. The indicator has not been changed.

3.1.3 Gas auctions were resumed. Gas traders get more access to the market after UkrGasEnergo entered the market. The indicator has not been changed.

3.2 **Access pricing regulation method.** Access is regulated by the NERC, but without a strong legislative base. The indicator has not been changed.



## **WATER AND WASTEWATER**

### **1.0 Commercialisation and privatisation**

#### **1.1 Ownership**

- 1.1.1 The natural monopolies (water distribution and drainage systems) are mostly in communal ownership (88%). The indicator has not been changed.(1.3)
- 1.1.2 Most potentially competitive businesses (water supply and wastewater treatment) are still integrated with the natural monopolies and are mostly in communal ownership. The indicator has not been changed.
- 1.1.3 Construction and maintenance are integrated with the natural monopolies and are also mostly in communal ownership. The index remains at the level of

#### **1.2 Operation**

- 1.2.1 Water and wastewater services are provided by local monopolists administered by local governments, which are also the owners of the companies in most cases. The indicator has not been changed.
- 1.2.2 The political influence on decision-making is very strong, local governments pursue goals of social support. The indicator has not been changed.
- 1.2.3 Private sector participation in service contracts is low; where it exists it is mostly due to the participation of international financial institutions. The indicator has not been changed.

#### **1.3 Organisational structure**

- 1.3.1 No separation. The indicator has not been changed.
- 1.3.2 No separation. The indicator has not been changed.
- 1.3.3 Companies operate only under the supervision of the local authorities. Local governments became less dependent on the central executive powers due to a legal change concerning tariffs and investments. The indicator has not been changed.

### **2.0 Tariff reform**

#### **2.1 Structure of tariffs**

- 2.1.1 All tariffs are approved by municipal officials. There was strong political interference in tariff setting in 2006. The indicator has not been changed (1.7).
- 2.1.2 Tariffs for residential consumers were increased. On average cost covering of water supply tariffs has increase from 0.84 in 2005 to 0.86 in 2006. On average cost covering of wastewater services tariffs has increase from 0.81 in 2005 to 0.87 in 2006. The indicator has been increased to 1.7.
- 2.1.3 Potentially competitive businesses are integrated parts of the natural monopolies, pricing of the services is not separated. The indicator has not been changed.(1.3)



## **2.2 Payments**

- 2.2.1 The level of payment of households decreased. Major creditors of the industry are the power distribution companies. Average payment rate of the enterprises for the electricity constituted 80% in first half of 2006. The indicator has not been changed.
- 2.2.2 The collection rate from households decreased to 89% As of June 1, 2007 total debts for water supply and wastewater treatments services raised by 10 % and amounted 1.15 bn. The indicator has been decreased from 3.3 to 3.0.
- 2.2.3 The local governments fulfil their obligation concerning financing of privileged consumers by more than 50%. The indicator has not been changed.

## **2.3 State funding**

- 2.3.1 The poorest households are subsidised. The amount of subsidisation varies substantially between regions. The indicator has not been changed.
- 2.3.2 Subsidies are paid to the water supply and sewage companies. The indicator has not been changed.

## **3.0 Regulatory and institutional development**

### **3.1 Effective regulatory institutions**

- 3.1.1 State officials continue to appoint the management of the water supply and wastewater monopolies. The indicator has not been changed.
- 3.1.2 There is no independent regulator. The indicator has not been changed.
- 3.1.3 Although clear tariff regulation guidelines are available they are not obligatory for local administrations: tariffs continue to be set arbitrarily. The indicator has not been changed.

- 3.2 **Access pricing regulation method.** There are no rules for access. The indicator has not been changed.