

## 8. Critical success factors for infrastructure reform

The transition economies are transiting from centrally planned systems to market oriented systems. To facilitate and accelerate the process, reform prescriptions have generally tended to focus on the separation of the sector policy formulation, ownership, operational and regulatory responsibilities of the government among government ministries (Ministry of Finance or State Property Fund for ownership functions, and Sector Ministries for policy formulation) corporatized service providing entities (for operation) and regulatory bodies (for tariffs and sector regulation). Steps along the path of reform generally included: (a) enacting needed legislation for reform; (b) corporatizing the service providing entities with their own legal identities under the company law; (c) commercializing their functions; (d) unbundling monopolistic services by function, setting up corporate entities for each function and creation of commercial relations among them; (e) creating independent regulatory bodies to set prices and carry out sector regulation; (f) creating sector structures suitable for competition in those segments where competition is possible (g) privatizing the supply entities to strategic investors to secure investments, improve efficiency and enable competition within and across the borders. Transition indicators have also been developed to track progress along these lines.

However, transition indicators imply equal expectations for transition end points. Such expectations would be misplaced. Each country needs to consider its system size, location in relation to relevant natural resource, technical talent, local and national government capacity for governance in designing the balance between public and private provision of the services, and for each the specific organization and regulation. Larger systems have more scope for capturing gains from commercialized or private organization. Further, while all the reform steps mentioned above are clearly desirable, not all of them could be considered critical (or the only alternative) to ensure that infrastructure sectors function effectively. Not long ago, most West European infrastructure systems were operating at high levels of effectiveness and efficiency even as state owned monopolies. The effectiveness and efficiency of their systems were clearly superior to those in the transition economies. They resorted to de-monopolization and competition in search of further efficiency gains. Even now the electricity and gas sectors in France continue to remain in the public sector without effective domestic competition. In Nordic countries there is effective competition in the power sector despite it being substantially in the public sector. Germany, till recently, did not seem to have had independent regulators. While there is no reason why the transition economies should not straightaway leapfrog to the state-of-the-art sector structures and competitive provision of the services, it may be more practical for the reform efforts to focus initially on those critical factors which must be in place to ensure that the infrastructure service entities (whether owned and operated by public sector or private sector) function effectively on a financially sustainable basis.

The central objective to be achieved is the sustained financial viability of the entities providing infrastructure services. Not being a drain on the state's budget, they would be able to provide the services on a sustainable basis. It may be attained by any of the several methods: as state-owned entities or privately owned entities; vertically integrated monopolistic entities or unbundled and competing entities; through concessions, management contracts or public-private partnerships or even by combination of two or more among such choices. Whatever be the choice, the real challenge is what it takes to achieve sustained financial viability. Based on the experience in the ECA region in the last 15 years, the following four elements in the public domain would appear to be the critical success factors:

- Recognition of the key problems in all their configurations and dimensions
- Ownership of the program (with such components as payment discipline, tariff adjustments and fair regulation) to overcome them and commitment for its implementation
- Transparency in all transactions to enable meaningful accountability

- Governance adequate to ensure effective sector management including the oversight of the agencies to ensure that they do provide the services to their customers at acceptable levels of quality and reliability.

These encompass concepts of respect for property rights, prevention of theft, enforcement of contracts and regulation—all of which are clearly public goods and can be provided only by the government. They form the inescapable foundation on which infrastructure service delivery systems of any type—public, private, monopolistic, unbundled or competitive—rest. They also include corporate governance and public enterprise reform in respect of entities remaining in the public sector.

### ***Recognition***

Recognition of the problems has to do with understanding the conflicts inherent among political, economic and social objectives and striking a balance through appropriate trade-offs. Short to medium term political objectives tend to favor policies which keep the moneyed lobby groups and vote banks happy. The economic objectives call for prices to be raised to cover costs, collections to be enforced to keep the utility financially viable and operational efficiencies of the utilities to be improved to reduce costs of supply and ensure service quality. Raising prices and enforcing collections tend to cause disaffection among the consuming public and cause affordability problems to the poor. It is not always easy to identify the real poor and find the budget resources to subsidize them adequately. Politicians, thus, tend to neutralize the state's efforts in this direction. Regulators may be subject to “capture” by special interest groups derailing true reform. Efficiency improvements in utilities face concealed hostility from managers and staff, who have a vested interest in the *status quo* wherein they exercise undue degrees of discretion and indulge in unchecked corrupt practices. They are also opposed openly by labor unions, which fear that reforms will lead to job losses.

Governments which recognize these problems and associated pitfalls fully, succeed in designing programs which reform the sector while ensuring political stability. Thus Poland and Hungary focused on labor agreements on downsizing, retraining, redeployment and acceptable separation packages. RAO UES of Russia focused on elimination of inefficient and corrupt managers and replacing them by competent ones.

Armenia and Moldova focused on service quality improvements moving *pari passu* with tariff increases and collection enforcement.

### ***Ownership***

Ownership of the program has to do with adhering to the program despite setbacks and opposition and being able to sell the program to the people. This is discussed in terms of three important variables, namely, payment discipline, tariff adjustments and independent regulation.

#### ***Payment discipline***

Laws need to be enacted to make theft of infrastructure services a criminal offence, punishable with deterrent penalties. Procedures for fair and speedy prosecution and trial need to be notified. The right of the service entity to deny service to those who do not pay should be specifically provided for in the law and should be scrupulously respected by governments at all levels. Such laws and procedures are broadly in place in CEE and most of SEE. In the case of CIS, the right of the utilities to disconnect for nonpayment is still not clear in many countries. Even in Russia, the civil codes had to be amended in the late 1990s to clarify this right.

Many CIS countries still maintain long lists of critical agencies and facilities which can not be disconnected for nonpayment on the ground that they perform nationally important functions or that disconnection would cause serious harm or production losses. If these agencies or activities are so

important that they should never be disconnected then, it is all the more necessary to ensure, on a priority basis, that they have adequate funds to pay for the services they need, all the time.

Lack of payment discipline of the departments, agencies and enterprises of the federal, provincial and municipal governments is still a major problem in many CIS countries.<sup>77</sup> In the late 1990s, RAO UES of Russia disconnected defaulting high profile consumers (such as missile silos) to dramatize the issue. In Armenia and Azerbaijan too, the governments enabled the new private sector owners/operators of power distribution to enforce payment discipline by disconnecting even high profile consumers for payment default. The governments, which focused on eliminating their own debts to the utilities and ensuring payment discipline of their own agencies (Russia, Ukraine, Kazakhstan and Armenia), succeeded in enabling their infrastructure sectors function better.

Interference by provincial and local officials, who forcibly enter substations or dispatch centers and restore supply to feeders disconnected for nonpayment, is still common in many CIS countries such as Georgia. This was the norm in many oblasts of Russia, Ukraine, Armenia and Kyrgyz Republic in the past. The first three countries were able to restore reliable supply after this practice was substantially reduced. It still continues in the last country, where the powers of the Special Representative of the President appointed to enforce payment discipline were withdrawn, when he was succeeding notably in his mission through the effective use of denying supplies to nonpaying customers. In Romania, substantial progress was achieved only after the government ministers were reined in from transferring, or otherwise getting rid of the key utility officials who resisted political intervention and tried to enforce payment obligations. Reining in such public officials and enforcing a political code of conduct to respect contract rights and obligations is a necessary requirement if the utilities have to function on a sustainable basis. By focusing on such aspects, countries like Ukraine and Romania have recently improved greatly the collection performance of their publicly owned power entities. Serbia succeeded in eliminating the practice of paying utility bills by the method of setoffs. Russia achieved high levels of collection under public sector ownership even earlier.

These responsibilities are those of the government and unless the government effectively discharges them, reform options such as privatization cannot work. Private sector can detect theft and illegal consumptions, but cannot do much more in the absence of effective legal framework to have such thefts prosecuted and punished. It can read meters, bill customers efficiently and keep better accounts and identify the defaulting customers to disconnect, but it will be of no use if it is not allowed to disconnect or forced to reconnect a non paying customer.

### *Tariffs*

Allowing prices to rise to cost recovery levels is often a political question, and this is especially so when the increases relate to the residential consumers. Even in a country like Hungary, even after the distribution companies and generation companies had been privatized, the government showed reluctance to allow retail prices to rise, when price increases became necessary in 2000. In response to the protests by the private distribution companies, the government protected their margins, by forcing the state owned transmission company (which was also the single buyer in the wholesale market) to buy power from privatized generation companies at a higher price and sell it to the distribution companies at a lower price. While by and large the electricity and gas tariffs have reached short term viability<sup>78</sup> in most countries in the region, they have to go up further to reduce the quasi fiscal deficits and be able to generate enough internal funds to finance a portion of the urgently needed system rehabilitation and reinforcements. Also

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<sup>77</sup> Nonpayment for electricity by water companies and state owned irrigation pumping companies is a pervasive problem, since their own tariffs are very low and since they face severe nonpayment from their own customers.

<sup>78</sup> By this term we denote positive cash flow, which is an operating surplus after meeting all cash operating costs. This is the minimum needed to keep the activity ongoing in the short term

the tariffs for residential customers need to rise substantially to reflect the higher costs of supply to them. Tariffs need to be allowed to rise, while ensuring that the poor people are protected from the impacts of such price adjustments through suitable social protection mechanisms without eroding the financial viability of the supply entities. This is clearly the basic remit of the state. The governments have to politically commit themselves to a reasonable program of tariff adjustments from the very low levels to levels approaching cost recovery over a medium term and allow the regulators to implement the tariff trajectory without further interference. Some elements of the approach to moderate tariff increases under the circumstances of the low income CIS countries are given in Box 8.1. Decisions therein are political and need to form part of the government approved tariff policy. Thereafter the regulators may be relied upon to make adjustments to tariffs taking into account the interests of all stakeholders.

**Box 8.1: Possible Approaches to Moderate Tariff Increases in the Medium Term**

Given the affordability concerns in the CIS, and the need to moderate and phase in the tariff increases in tandem with the forecast income increases, the governments may possibly consider writing down the asset values to provide a short term cushion. The reduced rate base would result in moderate tariffs on the basis of Rates of Return formula. In the event of asset sales, the approach could be on the basis of a binding tariff increase trajectory over a five year period, rather than on the basis of recovering maximum asset values based on historical book values and replacement values. Similar approaches would apply to concession contracts also. In respect of the operation of state owned utilities the tariff formulae could be forward looking, based on the need to generate adequate internal cash to meet all cash operating expenses, full debt service and still leave funds needed to finance the urgently needed system rehabilitation and improvements (such as metering). Annual tariff adjustments could then be driven by the needs of rehabilitation investments needed for the next year. In all cases however, efficiency indicators such as technical losses, commercial losses and collection efficiency should be linked to benchmarked targets, for revenue determination.

*Regulation*

Oversight of the sectors from the points of view of safety, quality of supply, service standards, protection of customer interests and environmental norms is clearly the role of the government. These as well as the economic regulation are best carried out by specialized and competent regulatory bodies independent of the service entities (to avoid conflict of interest) and of the executive branch of the government (to divorce their decision making processes from political considerations), but are often carried out by the government departments in certain countries and certain sectors. Clearly regulation is also in the remit of the public domain.

The role and focus of regulation in the region have varied across the sectors and countries. In telecommunication, technological innovations have spawned high levels of competition. The focus here is not so much on price regulation as on ensuring non discriminatory network access, quality of service, promoting competition and attracting new investment. In the water sector technological advances are slow and demand growth is limited, potential for competition is low and potential for adverse environmental impacts are high and therefore regulation has to focus on prices, quality of supply, and environmental issues. In the railways sector the focus is on enabling track-network access to promote competition in freight transport, and also in promoting inter-modal competition among railways, roadways and inland water transport for freight. In power and gas sectors, competition has become possible in generation and retail sales segments, while the network services remain monopolistic. The focus of the regulation is network service charges, non-discriminatory network access, promotion of competition in generation and retail sales, and price regulation of generation where necessary. Maintaining a balance between the interests of the consumers and service providers, quality and reliability of supply and environmental and safety concerns inform all sectors.

*In the water sector*, such autonomous regulatory bodies are not common. EU accession does not require the establishment of independent water sector regulatory bodies. In many member countries of the EU a locally implemented regulatory framework is in operation. In the water sectors of the ECA region only a few countries have established what could be called an independent water sector regulator. Sector regulation had been fully or partially decentralized to municipal levels in all countries except six (Albania, Belarus, Bosnia-Herzegovina, Kyrgyz Republic, Tajikistan and Turkmenistan). Even where private sector investors are operating, municipalities retain the price regulatory role with some allowance for the investors to have recourse to independent panels for arbitration.

These arrangements appear to be working well at present. There have been no major regulatory disputes in the large private water projects in the region (box 8.2). In some cases commercial financing for investment—without the need for sovereign or municipal guarantees—has been mobilized without private participation. It is important to note that major tariff reviews—the most contentious aspect of the regulatory process—in the cities where the private sector has entered have yet to be undertaken. Pending reviews in several cities will indicate whether local arrangements are sustainable. In cases where commercial finance has been mobilized without private sector participation widespread replication of pilot projects would indicate that this type of arrangement is sustainable.

**Box 8.2: Regulation of private operators in the Bulgarian and Czech water sectors**

Under the terms of the Sofia water and wastewater concession, monitoring is carried out by an independent body with three members: a technical expert, a customer services expert, and a financial expert. This body is the primary point of contact for the concessionaire. It acts as a technical advisor to the municipality, collecting information and carrying out expert analysis of the concessionaire's performance.

Should a dispute occur, it may be referred to a Concession Dispute Resolution Board (CDRB). The CDRB consists of three members: a lawyer trained in arbitration and dispute resolution, a technical member, and a financial member. The members are chosen at the beginning of the concession and make periodic site visits to keep in touch with developments.

The dispute resolution procedures used by the CDRB are informal and the parties' lawyers play a minor role. If neither party decides to contest a CDRB decision by going to arbitration within 30 days, the decision becomes binding on the parties, as if it were a contract amendment. Moreover, the CDRB decision can be admitted as evidence in any subsequent arbitration. Should such arbitration be required, it would be carried out under international rules with an international appointing authority.

So far there have been no major disputes. Tariffs were increased by 35 percent in real terms in accordance with formulas written in the concession. The concessionaire has failed to meet all of the extensive service quality targets, some of which may have been set unrealistically high and may require renegotiation. One potentially contentious area is the pending review of tariffs, during which targets for cost reduction will be set and the allowed cost of capital determined.

In the Brno water and wastewater concession, contract monitoring is undertaken by the municipality. In the event of a dispute, a sole expert—an independent engineer with appropriate experience in the water and wastewater sector—is jointly selected by the municipality and the concessionaire to make a final and binding decision.

To date there has been no major dispute. Tariff increases of about 25 percent in real terms were implemented in accordance with the terms of the concession during 1999–2003. There will shortly be a review of tariffs during which, as in Sofia, there will be determinations of targets for efficiency gains and the cost of capital. To provide a third-party view on the allowed cost of capital, the municipality has hired an international investment bank to act an adviser.

The evidence available leaves open the question of whether national independent regulators will be required for the water sector in the region or whether the types of local arrangements that have been introduced will suffice. In favor of national bodies is the argument that they would have more legitimacy than local independent panels (established under primary legislation, approved by parliament, subject to more accountability, and with more staff and country experience), particularly in a context of sector privatization.

In municipal-owned—rather than privatized—companies, it is unlikely that local arrangements will allow recourse to independent panels. As a result widespread access to commercial finance may be constrained. It is unlikely that municipalities in the region will be seen by financiers as having sufficient independence and expertise to set tariffs in a manner that provides cash flows adequate to support investment. A national regulator could help depoliticize the municipal tariff-setting process, with a view to ensuring that tariffs cover both operating and capital costs and to mobilizing commercial finance for investments.

The majority of water and wastewater companies in the ECA region are likely to remain under municipal ownership for the time being. This is a strong argument for developing national regulatory bodies. Such bodies might then oversee all municipal companies—including privatized companies (taking over the responsibilities of local expert panels in private projects)—to exploit economies of scale and scope. National regulators in Bulgaria and Romania certainly will have a role in regulating existing concessions.

Such national regulators might fulfill a range of functions. They include benchmarking costs and service quality, setting service quality standards, developing tariff-setting frameworks, providing opinions on tariff determinations at the local level, and setting tariffs. It is not clear a priori which roles should be given to a national regulator (this should be determined case by case), but it would seem that the more limited the institutional capacity is at the municipal level, the greater should be the range of functions under the responsibility of the national regulator.

*In the District Heat sector*, regulatory responsibilities (in countries such as Latvia, Romania and Hungary) are split between national and local authorities. National or provincial power sector regulators regulate the price of heat from CHP units, while the municipal level or provincial level regulators handle the regulation of heat tariffs from heat-only-boilers and heat distribution networks. Occasionally this causes problems since the municipalities tend to set the end use tariffs below the cost of heat from CHPs. In Russia and larger CIS states, federal, provincial and municipal regulators are involved. The last regulates prices in terms of methodologies prescribed by the first two sets of bodies.

*In the railway sector* too, the EU accession does not require the establishment of independent regulators. In the ECA region, the railway ministry handles the responsibility for regulation in most countries except Czech Republic, Estonia, Kazakhstan, Latvia, Poland, and Slovenia, where autonomous regulatory arrangements have been established. Further, Croatia, Hungary and Russia plan to establish independent regulatory bodies. In the railway sector there is scope for private entry and competition in the freight transport business. The major focus of regulation in the sector is to ensure nondiscriminatory track access, transparent determination of track access charges and promotion of competition in that segment. Independent regulation of the sector covering all aspects could enable rail sector joint stock companies raise commercial finance without sovereign guarantees for sector investments.

*In respect of power, gas<sup>79</sup> and telecommunications* sectors, separate regulators or regulatory bodies (called variously as Authority, Agency, or Commission) outside the utilities and outside the Ministries

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<sup>79</sup> The electricity and gas directives of the EU require the establishment of independent regulators to monitor nondiscriminatory transmission access and to fix or approve tariff methodologies for transmission and distribution network tariffs, and ideally to set tariff levels.

responsible for the sector have been established in most of the ECA countries, exceptions being Azerbaijan, Belarus, Serbia<sup>80</sup>, Tajikistan, Turkmenistan and Uzbekistan. In larger CIS countries such as Russia and Ukraine, there were also Regional Energy Commissions for the constituent oblasts or republics in addition to the National level Energy Commission. In 2003-2004, Russian Federal Energy Commission was abolished and Federal Tariff Service was created as a subordinate agency of the government with a very limited tariff setting role.<sup>81</sup> In Kyrgyz Republic, State Energy Agency and State Communication Agency have been abolished and the work had been transferred to the Anti-Monopoly Committee.

The regulatory arrangements in 28 countries have been reviewed in terms of six key dimensions: (a) whether they are separate and not a part of the ministry or the utility; (b) whether the regulators are being given fixed tenures; (c) whether the regulatory bodies are being funded from industry levies; (d) whether they have been delegated with full tariff setting power; (e) whether the regulatory bodies adopt transparent procedures; and (f) whether there are redress provisions for parties aggrieved by regulatory decisions. The results are summarized in table 8.1.

**Table 8.1: Power Sector Regulatory Bodies in the ECA Region (2004)**

Country	Separate regulator	Fixed-term appointment	Industry funding	Full tariff-setting power	Transparency	Redress
Turkey	Y	Y	Y		Y	Y
Slovak Republic	Y	Y		Y	Y	Y
Slovenia	Y	Y	Y	Y	Y	Y
Czech Republic	Y	Y			Y	Y
Hungary	Y				Y	Y
Croatia	Y	Y	Y		Y	Y
Lithuania	Y	Y	Y	Y	Y	Y
Poland	Y	Y	Y	Y	Y	Y
Romania	Y	Y	Y		Y	Y
Albania	Y	Y	Y	Y	Y	Y
Bulgaria	Y	Y	Y		Y	Y
Latvia	Y	Y	Y	Y	Y	Y
Bosnia and Herzegovina	Y	Y	Y	Y	Y	Y
Estonia	Y			Y		
Moldova	Y	Y	Y	Y	Y	Y
Macedonia, FYR	Y	Y	Y	Y	Y	Y
Montenegro	Y	Y	Y	Y	Y	Y
Serbia						
Belarus						
Armenia	Y			Y	Y	Y
Ukraine	Y	Y		Y	Y	Y
Kazakhstan	Y			Y	Y	Y
Georgia	Y	Y	Y	Y	Y	Y
Azerbaijan	Y					Y
Russian Federation	Y			Y		Y
Kyrgyz Republic	Y			Y	Y	Y
Uzbekistan	Y					
Tajikistan						
Turkmenistan						

Source: World Bank Internal documents; CEER 2004; USAID 2003

<sup>80</sup> A separate Regulatory Authority is planned in Serbia on the basis of a law enacted in 2004.

<sup>81</sup> This seems to indicate a reversal of the earlier policy of independent regulation. This may have implications for other CIS states, many of which tend to follow Russian example. The entries in Table 8.1 represent the situation before the change.

The above table gives the impression of substantial progress towards the creation of independent regulatory organizations in the region. The actual state on ground is less sanguine. A special survey carried out by EBRD in 2004 indicates that 70% of telecom regulators and 50% of the electricity regulators were not allowed to serve out their full term. Line ministries responsible for infrastructure sectors were reluctant to delegate responsibilities to the regulatory bodies, many of which actually continued to report to the line ministries. In more than 30% of the cases, regulatory decisions were reversed by the governments through decrees. In actual practice prior formal or informal government approval was needed in most countries<sup>82</sup> for key tariff decisions especially when it related to residential consumers. In Bulgaria and Romania the tariff methodology must be approved by the government. The situation on the whole is better in CEE and many SEE states. Some of the smaller CIS states such as Armenia and Moldova also did well on this score.

The regulatory bodies remain subject to possible political influence and “capture” by the state owned utilities or by the influential private investors. Protection against such developments lie in the direction of laying emphasis on the requirements of transparency and accountability such as the need to: (a) hear all affected parties, (b) record full reasons for the decisions, (c) publish all rules, regulations and decisions, and (d) publish well documented annual reports. Procedures of redress by way of appeal to courts or recourse to international arbitration could help (see Box 8.3). These practices are becoming more widespread encouraged by the association of energy regulators in the region and the maintenance of frequently updated websites by the regulatory bodies.

Ensuring independence of regulators is a long term process. As one chairman of the Regional Energy Regulatory Commission in Russia put it, ultimately only God is truly independent and the mortals can only struggle towards it. It is a function of political development and social values. Meanwhile the region is focusing on creating the conditions under which such independence could evolve. Regulation by nature is subject to some political control and influence. Regulators are appointed by a political institution and operate within the legal and policy framework. Thus independence of regulators is a matter of degree. Some amount of political control is unavoidable, and may occasionally even be desirable from the point of view of potential danger of regulatory capture. Thus independence has to be circumscribed by accountability.<sup>83</sup>

Emerging lessons in the region include: (1) the need to incorporate in the Regulatory law the principles of tariff setting; (2) the need to detail the tariff policy in terms of the principles in the subordinate legislation (the rules framed under the law); (3) the need to outline (in the initial regulatory order to be issued by the regulatory body) the actual tariff methodology in line with the tariff principles and policy; (4) the need to follow the three in all the tariff determinations by the regulatory body on the basis of giving equal opportunity to all relevant stakeholders to present their points of view; (5) the need for the regulator to record in writing clearly the reasons for its decision; and (6) the need to embed in all privatization or concession contracts the tariff principles, policy and the actual methodology to minimize contract disputes. Essentially the role of the regulatory body is one of implementer of the law and the policy. This kind of approach would minimize the regulatory risk for potential investors. It would also help the state owned commercially operated utilities access commercial finance for its investments. Often in the absence of regulatory institutions, the concession or privatization contracts have been concluded embedding in them multi-year tariff regimes and the associated investment obligations and efficiency upgrades. While this may be the practical solution in respect many municipal services which are not parts of national networks (such as water supply and sanitation systems, district heat networks or even isolated small power systems covering remote areas), it may not be the best method in respect of nationally networked sectors like power or gas. In respect of such sectors this approach often creates problems of

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<sup>82</sup> For example, Russia, Ukraine, Georgia, Croatia, Czech Republic, and Hungary.

<sup>83</sup> *Coming in From the Cold*, IEA, Paris 2004

consistency of practice across the sector and complicates the creation of sector wide regulatory approaches later on. Further, experience all over the world suggests that such contracts always lead to contract disputes and renegotiation as it is impossible to foresee (at the stage of contracting) developments during the life of the concession.<sup>84</sup>

**Box 8.3: Power sector regulation in Kazakhstan and Moldova. Usefulness of the Arbitration Clause**

Starting in 1996 Kazakhstan began radical reform of the power industry and made more early progress than any other CIS country. Power generation, transmission, and distribution were unbundled, the private sector introduced in some areas, and the market for large users (including distribution companies) liberalized.

The regulator for the power sector was separate from any ministry but subject to a high degree of political influence. The legal basis for tariff setting was vague, with primary legislation stating only that prices should cover (undefined) costs and possibly allow a profit to be made. As a result disputes invariably occurred at each quarterly tariff review.

The methodology used by the regulator allowed a profit of 10–30 percent margin on revenue. Though technical losses were set equal to an industry norm, no allowance was made for non-payment, though it was extensive. Various categories of cost incurred by regulated companies (such as insurance payments) were not allowed to be passed through. Though the tariff methodology was embedded in the contract, the allowance for nonpayment problem was not made clear. Such nonpayment being as high as 25%, a contract dispute arose between the regulator and the private investor.

In these circumstances the private sector operator found it difficult to sustain businesses and *sought recourse to international arbitration, as allowed under the privatization contract*. In the event no arbitration took place. The government settled the claim by granting to the company a compensation of \$100 million on exiting its investment in 2000. The assets reverted to public ownership.

The power sector in Moldova during the 1990s suffered poor cash collections (about 25 percent) and commercial losses (largely caused by illegal connections and tampering with meters) of about 25 percent. This situation was not sustainable, particularly given Moldova's dependence on imported energy and its tight fiscal constraints. As a result external arrears grew and supplies were interrupted.

In response, an industry restructuring and privatization program was undertaken to improve payments discipline. An independent regulator was set up in 1997, an energy law passed in 1998, and privatization commenced in 1999. In February 2000 three distribution companies were sold to a strategic investor in a difficult country investment climate, and payments discipline has subsequently been improved.

Of particular interest in Moldova is the regulatory framework for power distribution companies, which provides both incentives for efficient performance and security for investors. *The tariff-setting mechanism is enforceable outside Moldova through potential recourse to international arbitration*. The basis for any potential judgment is provided by a well specified set of rules under which tariffs are set on a seven-year forward-looking basis, with cost pass-through of real exchange rate movements and allowance for technical and commercial losses. The rules also provide incentives for reducing costs and improving payments discipline.

One clause in the tariff methodology stated that base values for operating costs and for losses would be reviewed after one year. This was initially problematic, with disputes between the regulator and the company over both these variables, though subsequently a resolution satisfactory to both parties was agreed *and recourse to arbitration was avoided*.

Cost of service regulation is the most widely used tariff methodology in the region in the electricity, gas, water, heat and railway sectors. Tariffs are set annually to enable revenues to match allowed costs and profit margin. Incentive or price cap methodologies are being used in Bulgaria and Romania (water and power), Czech Republic and Estonia (water) and, Hungary, Lithuania, FYR of Macedonia, Moldova, Slovakia and Ukraine (power). Under the incentive regulation, tariffs are set over a number of years (usually five years) to equalize the present value of forecast revenues and costs. Once the tariffs are set,

<sup>84</sup> Guasch, J.L (2004)

the incentive for the regulated company is to outperform the forecasts—by reducing costs, reducing losses, increasing collections, and generating extra demand or revenue. The extra profits thus made, often referred to as efficiency gains, are retained by the investor. At the time of the next tariff revision, these gains are passed on to the consumer in the form of lower prices.

Price caps may be attractive in the ECA region, as it provides scope for easing the affordability burden. Transaction costs are also lower compared to cost of service regulation. Cost of service regulation calls for more detailed and more frequent scrutiny of possibly inflated costs and imposes great burdens on the small pool of qualified regulatory staff and their small budgets. However, there are legitimate concerns that under the price cap methodology, the investors might be prone to invest less than provided for in tariff estimates and make excess profits. This risk is generally handled by providing for downward adjustment of the tariffs in proportion to the under-spending.

While clearly price regulation in the monopolistic segments of the sector is a major responsibility of regulatory bodies, their other responsibilities are equally important. They include enforcement of the quality and reliability of supply, adjudication of disputes among the various stakeholders in the sector, enforcement of investment obligations, enforcement of grid code, and oversight of the orderly functioning of the market.

As the markets are liberalized, the focus of the regulation will shift more towards maintaining conditions conducive to competition, enforcing transmission and network access, discouraging anti-competitive behavior, and prevention of accumulation of excessive market power. It will also have to focus on the rights of captive consumers and enforce public supply obligations, in accordance with law.

### ***Governance***

Public enterprise reform and improvements in corporate governance are the key essential set of steps needed to make the state owned service providing entities function efficiently and meet the demands of their mission. Combined with the pricing and payment discipline approach discussed above, they would pave the way for their financial sustainability. They would also reduce considerably sector and institution related risks for potential investors, should they become candidates for privatization. Such public enterprise reform steps include:

- Transferring ownership of assets and responsibility for their operation and provision of service from the government ministry to a joint stock corporation under the company law and imposing it “hard budget constraints” Hard budget constraints imply that the entity would no longer get routine transfers from the state budget to meet its expenses in excess of its revenues and that it is obliged to pay its taxes and debt service payments to the government according to law or the borrowing agreements, and be current on all its payables to others. While corporatization had been extensive in almost all countries of the region, conformity to hard budget constraint varies across countries and sectors.
- Deciding on the sector and market structure on long term basis for efficient and where possible (nationally or internationally) competitive provision of services is the next step. In the electricity, gas and heat sectors these decisions had been taken (not always correctly) in most countries. In other sectors especially in railways this is an ongoing process. Further steps involve creating business units within the corporate entity along the lines of the decided sector/market structure, making them transact with one another on the basis of internal contracts, and based on such experience convert the business units into subsidiary companies and later into separate independent companies.
- Carrying out accounting and financial reforms involving (a) adoption of a commercial set of accounts (with double entry book keeping and accrual accounting) conforming to the regulatory requirements, the needs of national accounting standards and disclosure requirements of the security exchange commissions and lending institutions, (b) introduction of a meaningful internal audit function to

improve internal controls and curb unauthorized or corrupt practices and for an independent external audit, (c) introduction of modern Management Information Systems, which enable the flow of all relevant information to managers to make key decisions correctly, and (d) changing over to International Accounting Standards or the International Financial Reporting Standards consistent with the national program in this regard and to external audits based on such standards by international auditors (Box 8.4).

Three other areas of enterprise reform are worth mentioning. First is the approach to the Board of Directors (called the Supervisory Boards in the region as opposed to the executive boards consisting exclusively of the company's top executives). Compact boards with a minimum of government representatives (usually representing the government ministry responsible for state property and or the ministry of finance) and two or three reputed business leaders in manufacturing, banking and law and the Chief executive of the company—all with fixed tenures seems to work best. Once the Boards are constituted, the governments have to learn to let them run the business and intervene only in its capacity as a shareholder in respect of matters reserved for consideration in the annual shareholders meeting. This had not been easy in any part of the world, but progress is being made in the region especially in cases where there is some notable minority shareholding by institutional and individual shareholders.

Second, the practice of annual performance contracts between the government and the company providing for specific annual goals and for some incentive bonuses above the normal salaries for better performance and more importantly for sanctions (by way of demotion, reassignment, or removal from service) for nonperformance is generally believed to be effective. RAO UES of Russia had achieved remarkable performance enhancements in its 72 regional electricity companies by removing or reassigning chief executives who did not achieve the agreed target for collection improvements and replacing them by young and competent ones. Such performance contracts could aim at achieving benchmarked levels of performance and quality standards, graduated over a few years.

Third, focus on improvement of labor productivity and labor restructuring seem to be of significance, since as departments of government, these entities are usually overstaffed and suffer from low levels of labor productivity. Key elements in this include:

- A freeze on routine hiring of new personnel even for the vacancies caused by death, resignation, retirement or separation of existing personnel and adoption of a standard retirement age for all personnel.
  - Provision of a reasonable severance package for early retirements
  - Retraining programs and use of laid off staff in small companies which get outsourced work on contract
  - Assistance for relocation and support to community activities which can absorb the retrenched labor.
- Russia and Ukraine seem to have used these methods fairly effectively. In Poland, Hungary and other CEE states privatization became relatively smoother on account the lot of groundwork done in this regard. The success in the railways sector in Russia and several countries in the region in this regard is notable.

### ***Transparency***

In most SEE and CIS countries the entities use national accounting standards and provide translations into IAS format for meeting the needs of international lenders and investors. Changing over from this to IFRS could only be in the medium term and IFIs could play a helpful role in this through their technical assistance mechanisms.

#### **Box 8.4: The transition to IFRS in Transition Countries**

An important element in effective management of both public and private enterprises is the use of good management information systems based on accounting systems that are capable of providing an accurate and transparent record of financial performance. Acceptable books of accounts are essential if enterprises are to secure access to financing on reasonable terms. They are also an important element in assuring good governance of the enterprise.

The European Union has mandated that the publicly listed companies in its member countries must change over to International Financing Reporting Standards (IFRS) by January 1, 2006. The World Bank believes that enterprises in the countries of its ECA region would do well to adopt IFRS for their financial reporting. It is expected that gradually there would be convergence between IFRS and the Generally Accepted Accounting Standards of USA (GAAP). In areas where the IFRS does not as yet provide guidelines (such as a number of aspects relating to the accounting for oil and gas industry operations) the enterprises may have to use US GAAP to supplement IFRS.

IFRS is a relatively new development and only the four large accounting firms in the world have the expertise to introduce the system. The demand for accounting services to switch over to IFRS in Western Europe combined with increasing demands placed on the accounting profession in USA as a result of the Sarbanes/Oxley Act could lead to a shortage of expertise to support the implementation of the IFRS in the ECA countries. Further even for migrating from International Accounting Standards (IAS) or other systems conforming to good international practice period of one year provided in the EU may not be sufficient. To migrate from the national accounting standards of many ECA countries to IFRS could take as long as five years, since the large four accounting firms have not developed procedures for such migration as they have done for systems using IAS.

In this context the IFIs could help in developing an implementation program for migration from national systems to IFRS through a set of pilot programs. Meanwhile consistent use of national standards and translation of accounting statements into IAS would have to be continued.

In most of the CIS and SEE countries, there is an air of secrecy relating to the release of operational data by the public sector entities and, when released, are often inexplicably inconsistent. This lack of transparency in disclosure is not conducive to the efficient functioning of the entities as the supervisory authorities and external reviewers would not be able to meaningfully judge performance and prescribe remedial action. It may also be a breeding ground for corrupt and undesirable behavior on the part of staff and executives and the misuse of entities by the governments to further their individual and political agenda running counter to the commercial and public policy interests of the entities. High standards of transparency and disclosure are the corner stone in the foundation of good governance. It makes the entities as well as government (which owns them) accountable to the public and all other stakeholders. The public sector entities should be obliged to adopt transparency and provide periodically consistent set of correct data with explanations for variations (Box 8.5).

According to the OECD Guidelines on the Corporate Governance of SOEs, “the state should act as an informed and active owner and establish a clear and consistent ownership policy, ensuring that the governance of SOEs is carried out in a transparent and accountable manner. Large or listed SOEs should disclose financial and non-financial information according to the international best practice”. At the request of OECD, Standard and Poor’s carried out in 2005 a survey of transparency and disclosure of 11 large companies with substantial state ownership in Russia. It showed that the Russian state owned companies scored an average of 47% (meaning disclosure of 47% of the possible disclosure items) compared to a score of 52% for the 10 largest listed Russian private companies and a score of 63% for comparative peer group from Western Europe and North America. This indicates the progress so far achieved and further room for improvement in transparency.<sup>85</sup> The survey seems to indicate that qualitatively the disclosure lapses could be even more worrisome.

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<sup>85</sup> Standard & Poor’s, Transparency and Disclosure by Russian SOEs, June 2005

### **Box 8.5: Transparency Requirements for State Owned Utilities**

#### **Disclosure Requirements to the General Public:**

Minimum requirements are those that pertain to a publicly quoted utility:

- Annual financial statements (which should be prepared in accordance with international accounting standards) for the consolidated operation and its major business units.
- Quarterly interim financial statements.
- Statistics on all aspects of operating performance.

#### **Disclosure to the Government:**

The Government has a valid basis for seeking disclosure of any information it requires to ensure that these State owned assets are being efficiently managed.

#### **Disclosure to Lenders:**

- Detailed financial information (including, ideally, accounting statements audited in accordance with international accounting standards).
- Project specifics (in the case of project financing).

#### **Disclosure to the Regulatory Authority:**

Information required by the Regulator to make a determination of the appropriate course of action associated with any regulated activity such as tariffs, transmission/track or network access and compliance with service standards, licensing conditions, anti-competitive behavior, compliance with operational codes and the like. They would include:

- Detailed accounts
- Operating costs
- Actual and projected capital costs
- Administrative and general costs
- Borrowing costs
- Customer data
- Physical data
- Quality of service indicators
- Any other data deemed pertinent to the decision making process\*

\*Confidential information may be requested by the Regulator, but may not be disclosed by it.

Source: Azerbaijan: Issues and Options associated with Energy Sector Reform, World Bank, March 2005

### ***The road to success***

Through a combination of enforcement of payment discipline, implementation of the program of tariff adjustments towards cost recovery, institution of regulatory arrangements and pursuit of enterprise reform, the public enterprises would be enabled to move towards financial viability. Their objective would be to generate internal cash adequate to meet all cash operational expenses including taxes, all debt service and contribute at least 35% to 40% of the capital cost of the urgently needed capital investments for asset rehabilitation or replacement. At this point they could hope to borrow from the debt market the remaining funds required for capital projects on the strength of their balance sheets, initially with sovereign guarantee and later without it. Once the entity reaches this stage, it can sustain its operations in the future. It can afford to wait for any length of time for business cycles to turn and investors to become interested in it. As long as it is run well and prudently it can even hope to issue IPOs in the domestic market and hope to use the proceeds for system expansions. In these stages the entities become subject to thorough external scrutiny by domestic and international lenders, and by the international rating agencies. Securing better ratings from them becomes a major motivating factor for performance enhancement.

Many countries in CEE followed such a classic route for enterprise reform and further towards privatization, securing attractive privatization receipts, ensuring orderly delivery of quality services to their people, and attracting high quality investors who have contributed for further efficiency enhancements. The experience of Bulgaria and Hungary are noteworthy. Among the FSU states

Lithuania's experience in this regard had also been well documented. Among the CIS countries Armenia went about reforming its energy enterprises in a patient manner making full use of the interlude in which there was a loss of interest in the region by the western investors.

A number of other countries which considered privatization as a panacea for all its ills and jumped towards privatization of their infrastructure assets without going through the right sequence of reform (involving restoration of payment discipline, cost recovering tariffs, transparent regulation, and enterprise reform) faced serious difficulties including low privatization receipts, disputes with investors on tariffs, disinvestments, deterioration of service quality and a loss of several years before some normalcy could be restored to sector operation.

At the end, we can do no better than quoting a contemporary French economist who said, "Because private involvement in infrastructure projects is potentially a great source of savings, some people see privatization as a panacea. Particularly so, when facing a corrupt and inefficient government. But in reality private provision is never pure and always involve (and should involve) a dose of public decision and control. The efficiency of the private sector is contingent upon the form and magnitude of this public control. Unfortunately, governments unable to deliver efficiently public services are also governments unable to control efficiently private enterprises contracted to do it. And these governments are even more unable to create the independent bodies or regulation agencies needed to arbitrate disputes between public and private. The sad and the well known paradox is that usually the countries that would most need a large dose of privatization are also the countries least equipped to inject it properly. Conversely, the countries that are most able to conduct and oversee a privatization process are also those where this process is least needed. *Privatization of infrastructure therefore should not be seen as a panacea. It is a desirable goal, at the end of a long and arduous road.*"<sup>86</sup>

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<sup>86</sup> Rene Prud'homme, *Infrastructure and Development*, Annual Bank Conference on Development Economics, Washington, May 2004.