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**Sector Background**

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***INFORMATION EXCHANGE AND PEER ASSISTANCE PROGRAM BETWEEN  
LOCAL GOVERNMENT OFFICIALS AND ENERGY REGULATORS***

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***The ERRA/LGI Training Material 1: Sector Background*** was prepared, along with four other training materials, to support the training of public sector experts, especially at sub-national levels. In compiling the materials, we have drawn on ERRA workshop proceedings and the written responses of ERRA members to questionnaires, as well as *Navigation to the Market* prepared by OSI/LGI (ed. Gábor Péteri and Tamás M. Horváth). Preparing the training materials we used the comments and advises of Robert Archer (United States Agency for International Development), Pál Lángfy (Hungarian Energy Office), and Gábor Péteri (Open Society Institute).

## 1. INTRODUCTION

The establishment of local government systems has fundamentally changed the conditions of public service provision in transition countries. The provision of local public services (water services, regular solid waste collection and disposal, district heating, public cleaning, management of social housing and so on) is an important part of the economy, and has an impact on the everyday lives of citizens. However, there are great differences in the manner in which these services are provided, and there is still much confusion in approaches, objectives and policies as to how these activities should be managed and financed.

During the changes of the past decade, public utilities have also been under transformation. The direct service-providing and producing responsibility of the state has been changed in two ways: firstly the private sector is gradually taking over more and more responsibility, secondly, the roles of sub-national (local) governments in the organization of service provision have been enhanced and expanded in scope. Behind this change lies a rather significant political, organizational and financial restructuring process. The fiscal decentralization process tends to make local governments increasingly responsible for the quality and security of public services. Local governments enjoy a large decision-making freedom when choosing the methods to achieve the goals and the form of service provision. Therefore, the municipality itself has the right to influence service performance levels, the method of financing and the related organizational forms within the legal framework of the sector concerned.

The ERRA training materials focus on two specific branches of communal services: the water/ sewage and the district heating sectors.

## 2. THE ROLE OF LOCAL GOVERNMENTS IN THE WATER/SEWAGE AND DISTRICT HEATING SECTORS IN TRANSITION COUNTRIES

### 2.1 An overview

The transition of the East-Central European countries from a centrally planned economy toward the market economy has turned out to be a very complex process. Local governments are playing a critical role in this process, as part of government, and as representatives of local interests. New institutions have arisen or institutions have acquired new roles; they have had to develop a new strategy in a changing macro-economic and social environment. Fiscal decentralization is the key to most of the reforms needed in transitional economies. The decision on the alignment of expenditure responsibilities among the different levels of government is a very important step in this process. The decentralization of responsibility and the authority to provide or regulate services and to manage and/or promote local development can lead to better services and an improvement in local conditions. The expectation is that placing authority and responsibility for certain public services in the hands of local elected officials will lead to decisions regarding the quantity, quality and mix of services that most closely match the preference of local service beneficiaries.

The persistent key question in expenditure assignment is which services are to be assigned to local self-governments in which way, because not all functions are equally suited to decentralization. The structure of local functions and responsibilities vary from one country to another. But one thing is common: the basic responsibility for water/sewage services and district heating belongs to local governments. However, certain elements of responsibilities for regulation are shared between the different levels of government, which leads to different institutional structures. There are two extremes: 1. the centralized model, where the service utility company is basically a

deconcentrated unit of the central government, and the 2. the decentralized model, where the utility companies are accountable to the local government. Central government includes the sector ministries and the central public agencies under the control of the parliament or the government. The existing institutional settings can be placed between these two extremes. The control of different elements of the responsibility is capable of being shared in very different ways.

On the basis of reports made by ERRA members, we have given an overview of the allocation of the responsibilities between the different level of government in Table 1 and Table 2. The countries have been characterized according the different elements of the responsibility. The criteria we have used for the typology are the following:

- **Policy and service standards:** the policy formulation which includes setting the present and future service standard expectation is a part of the national development program which in most of the cases are in the hands of the sector ministries. But in certain cases, as in Poland, or Kazakhstan, they can be shared between the different levels of government.
- **Provision/administration:** the responsibility of production and distribution is a key function in service provision. The question here is about which level of government makes a decision about the form of the provision, who controls the contracting out or the privatization process, if they are legally possible.
- **Pricing:** what role the different levels of government play in pricing (who defines rules of the pricing, approval, implementation etc.)
- **Social assistance:** are there any social assistance programs related to the services, what are the roles of local governments in design, finance and administration of the programs.
- **Investment:** How investment responsibility is shared between the different levels of government in the given service.
- **Licensing:** Licensing is a key function, which is allocated to central governments or agencies at the central government level. In the decentralization process some elements of the licensing process are decentralized.
- **Ownership:** Ownership of the capital assets could be assigned to the different level of governments. There is a process of the municipalization of these assets. The ownership has an important influence on privatization, investments and pricing policies.

The table shows different solutions, but it has more of an illustrative than an analytic strength. For example in some countries (like Kazakhstan, Romania, etc.) the regional governments are essentially deconcentrated units of the central government, and do not constitute self-government in a political sense. In the case of social assistance, the typical solution is a shared responsibility, whereby the central government finances the major part of the assistance program, and local government co-finances and administers it. But we can find other solutions as well. The responsibility can be shared according to the size of the service provider as well, as in Estonia, where the Energy Market Inspectorate (EMI) regulates the sale of heat energy if it exceeds 50,000 MWh per financial year, and the others (small boiler houses) are under the authority of the local government.

Table 1. Regulation responsibilities for water/sewage in different transition countries

Regulation responsibility	Central government	Regional Governments	Local Governments
Policy and Standards Oversight	Poland (strategy, legislation); Lithuania; Ukraine; Slovakia (Ministry of Agriculture); Kazakhstan (elaboration of normative/legal acts)	Poland (planning coordination); Slovakia; Kazakhstan (submission of proposals to the central government)	Romania; Poland (planning management ownership); Lithuania; Slovakia; Kazakhstan (setting the norms of consumption)
Provision/administration	Slovakia (Ministry of Agriculture); Kazakhstan	Ukraine; Slovakia; Kazakhstan	Romania; Poland; Lithuania; Slovakia; Kazakhstan
Production/distribution	Slovakia; Kazakhstan (orders of the Regulatory Agency)	Ukraine; Slovakia; Kazakhstan (orders of the departments)	Romania; Poland; Lithuania; Slovakia; Kazakhstan
Pricing	Slovakia (Ministry of Finance - for households); Kazakhstan (regulation of tariffs)	Ukraine; Kazakhstan (establishing of tariffs)	Romania; Poland; Lithuania; Kazakhstan
Social assistance	Ukraine; Slovakia (State budget-Ministry of Finance);	Ukraine; Slovakia	Romania; Poland; Lithuania; Slovakia; Kazakhstan)
Investment	Slovakia (Ministry of Agriculture); Kazakhstan	Ukraine; Slovakia; Kazakhstan	Romania; Poland; Lithuania; Ukraine; Slovakia; Kazakhstan
Licensing	Slovakia (Ministry of Agriculture); Kazakhstan		Romania; Lithuania;
Ownership*	Ukraine; Slovakia; Kazakhstan	Slovakia; Kazakhstan	Romania; Poland; Lithuania; Ukraine; Slovakia; Kazakhstan

\*In Slovakia, Ukraine and Hungary private firms are also involved in ownership.

*Table 2. Regulation responsibilities for district heating in different transition countries*

Regulation responsibility	Central government	Regional Governments	Local Governments
Policy and Standards Oversight	Romania; Poland (strategy legislation); Lithuania; Hungary; Czech Republic (MIT); Slovakia (Ministry of Economy); Kazakhstan	Poland (planning); Kazakhstan	Poland (planning); Lithuania; Kazakhstan
Provision/administration	Czech Republic (MIT); Slovakia (Ministry of Finance); Kazakhstan	Poland (coordination); Kazakhstan	Romania; Poland; Lithuania; Hungary; Kazakhstan
Production/distribution	Czech Republic (ERO); Kazakhstan	Slovakia (Licensed subjects); Kazakhstan	Romania; Poland; Lithuania; Hungary; Kazakhstan
Pricing	Romania; Poland (acceptation by ERA); Czech Republic (ERO); Slovakia (Ministry of Finance); Kazakhstan	Kazakhstan	Romania; Poland (preparation by tariffs); Lithuania; Hungary; Slovakia; Kazakhstan
Social assistance	Romania, Poland (general policy); Czech Republic (Social Ministry); Slovakia (Ministry of finance);	Romania	Romania; Poland; Lithuania; Hungary; Slovakia; Kazakhstan
Investment	Romania; Czech Republic (MIT); Kazakhstan	Slovakia (Licensed subjects); Kazakhstan	Romania; Poland; Lithuania; Hungary; Kazakhstan
Licensing	Romania; Poland (ERA) Hungary; Czech Republic (ERO); Slovakia (RONI); Kazakhstan		Romania; Poland; Lithuania; Hungary
Ownership*	Poland (large-scale CHP-s); Czech Republic (MIT); Slovakia; Kazakhstan	Slovakia; Kazakhstan	Romania; Poland; Lithuania; Hungary; Slovakia; Kazakhstan

In Slovakia, Ukraine and Hungary, private firms are also involved in ownership.

## 2.2 Elements of regulation, management and planning

With decentralization and increased municipal responsibility comes a need to establish sound modern regulatory arrangements. This is needed to attract investment necessary for sustainable communal services whether privately or publicly owned or managed. The institutional arrangements decided upon will impact the degree of success in establishing economic tariffs and conditions necessary for system sustainability and accompanying commercial operations. The division of authority and responsibility between the central and (regional and) municipal governments is important. In some countries it may make sense to have a national regulatory body establish a tariff methodology and model license with the actual implementation and oversight carried out at the regional or municipal level. In others, it may all be at the municipal level. Based on experience to date in energy and water sector regulation, it is important to institutionalize sound regulation that will reflect accepted policies but is not constantly vulnerable to short-term political interventions. However, even in the decentralized institutional settings the concrete responsibilities of local governments vary according to the national regulations.

The most important regulatory and planning means in service provision are the following:

- Legislation on organizational forms and taxation rules;
- Licensing, service permits;
- Sectoral planning and strategic decision;
- Capital investment financing schemes;
- Contracting and tendering regulations;
- Setting user charges and prices for the service;
- Forms of consumer protection.

The significance of these tools and instruments, and the scale of local government influence are different according to the services.

### 2.2.1 Legislation on Organizational Form

Organizational forms of water/sewage and district heating services are similar in all the countries examined. These services might be provided by the local administration (departments) or by different forms of **budgetary organizations**. These local government institutions are under the control of local governments, but their property rights and autonomy in managing their own finances are different. They are usually parts of the local budget. Typically, small local governments use this form in the water sector or district heating.

A mixed form of operation is the **municipal enterprise**, which is a public sector entity, but has some characteristics of business. This was a typical solution for transferring the former state-owned companies to local governments, whose possibilities as owners were limited. Sometimes these organizations were transitional forms, when a deadline was set by the national legislation for deciding whether they would operate as budgetary or as business entities. This was the case in Hungary, where these enterprises were forced to be transformed by 1996.

In Romania the "regie autonomes" operate in natural monopoly services, with high capital investment needs, where competition can be developed only in the long run. They are legal entities under the public law and in the case of corporatization, their assets must be recorded separately. In the case of privatization, only the management functions and not the assets can be transferred to new owners under concession agreements. Most of the water, communal waste and district heating services are provided by these special mixed organizations.

The third service organization group is the business entity under the company law. This exists in the traditional forms of joint-stock companies, limited liability companies, partnerships or some forms of public purpose (non-profit) companies. They might be owned exclusively by the local government, or by different private owners, with different proportions of shares.



A given public service can be provided not only by an in-house organization, but also with the involvement of an outside organization, within the framework of a service contract. Depending on the ownership of the equipment necessary for completing the task (full public property, majority public property, majority private property, full private property), on who is responsible for operations, on what organizational level the regulations are defined, on what resources are involved in financing the operation and development, on who takes the risk, and so on, a lot of different scenarios can be envisaged. What is common to these forms is that the service specifications are defined in a contract. Contracting out services may show a number of advantages, because of the inclusion of the private sector and, consequently, competition, which may result in increased efficiency, services meeting higher quality standards, additional investments financed by private capital.

**Table 3. Legal Forms of Service Organization**

Hungary	Budgetary Institutions	Companies	Private Entrepreneur	Other	Total
Municipal solid waste, water services	38%	44%	11%	7% <sup>a</sup>	100%

Romania	In-house Units (local government department)	Companies	Regie Autonomes	Total
Water, solid waste and district heating	30%	35%	35%	100%

Slovakia <sup>1</sup>	Budgetary Organizations	Companies	Total		
Municipal solid waste, water services	72%	28%	100%		
	Joint Stock Companies	Limited Liability Companies	Partnerships	Cooperatives	Total
Municipal solid waste, water services	42%	55%	2%	1%	100%

Source: OSI/LGI, 2001: Navigation to the Market, pp.53.

<sup>1</sup>In the case of Slovakia, legal forms are shown separately for exclusively local government owned entities and for joint ownership.

Table 3 shows the variety of the forms through which services are provided in some selected countries, but the distribution shows only the number of organizations, which does not give a full picture of the real significance of the different forms. One of the key questions in respect of the efficiency of a given solution is the capacity of local government to control and monitor service companies. In cases in which a service company is owned by local government, the local "managing capacity" becomes critical.

A more important question is the possible advantages and disadvantages inherent in the different organizational forms. The issue of privatization is the most relevant question, one that is highly debated in the literature. Several countries in the region plan to move toward privatization, because of the huge need for capital investment.

### 2.2.2 Licensing

In order to be able to provide local public utilities, any type of the above mentioned service organization must go through the licensing process. Permits are based on various items of sectoral legislation: technical standards, environmental protection requirements, employment rules, and financial criteria supplement the service licenses. Some areas of these sectoral regulations are more developed, as they were traditionally the subject of legislation (e.g. water services in Hungary). There are also new fields of licensing process, for example the energy sector, after the privatization and devolution of some responsibilities to local government units.

District heating is an example that should fit into the changing institutional environment. Arguing from the examples of the Hungarian and Slovak laws, the following new elements of service regulation have been established:

- the competencies of the central and local governments have to be specified
- requirements of consumer protection (access to information, justification of costs, handling complaints)
- conditions for the issuing of licenses for heat generation
- rights and duties related to heat transmission and grid ownership
- a contractual relationship has to be established between the heat generators and the transmission/distribution companies on the one hand, and between the distribution companies and the consumers on the other hand.

It is a different issue as to how these new roles are enforced, by which level of government and under what organizational form the responsibility for implementation lies. Typically, sector-oriented regulatory bodies are established. In some countries independent regulatory bodies have been established with a great variety of rights and competencies. In Romania, the regulatory body has an influence to the energy policy formulation (price setting, allocation of subsidies, etc.). In Hungary and Poland the regulatory agencies, in principle enjoy greater independence from the political influence of the government.

### 2.2.3 Planning

Beside licensing and permit procedures, there are other ways and indirect means of influencing local services. Depending on the scope of decentralization, different levels of local governments are responsible for planning and strategy design. In almost every country the central government is responsible for energy policy and water resource management, because these are strategic elements of the economic strategy. However local government environmental protection programs, plans for energy and heating supply, water sector development strategies are the most direct forms of influence.

### 2.2.4 Capital investment financing

Without sufficient financial resources, these planning competencies have only a limited influence on public utility services. The investment needs are huge in the region. Several country experts have identified the dilapidated and obsolete equipment as the most critical element of the service sector, because it leads to high losses and high service costs (as in Moldavia, Romania). There are various capital investment financing schemes. The most targeted forms of capital grants are designed and allocated by the central budget. Earmarked subsidies from the central budget to local investment projects (e.g. in Romania) are traditional forms of capital grants. In a more decentralized local government structure, targeting is achieved through matching grant schemes (e.g. in Hungary).

Other preferred forms of allocating targeted subsidies are the funds and special appropriations, managed by the sectoral ministries. They might be controlled by the general budgetary policy or often they enjoy greater independence as separate funds, allocated by the relevant ministries. The amount and spending of extra-budgetary funds are obviously controlled by the national fiscal policy (Ministry of Finance) to a lesser degree than subsidies through other centralized appropriations. On the other hand, they support sector development policies and programs more efficiently.

External funding might be provided through national budget loan schemes or by ensuring direct access to international financial institutions and commercial banks. Private financing is possible if cost recovery is guaranteed in the sector, and political influence does not jeopardize predictability. Again, this shows how important overall economic policy is, especially with respect to privatization and liberalization.

### **2.2.5 Competition Rules**

Contracting and tendering for public contracts are part of the broad regulatory framework. In typical cases, public contracts are made between the local government entitled to provide the service and the service providers. Here, the local government as a public authority establishes a contractual relationship with the service organization. It might be even an in-house unit or any arms-length entity, partly or entirely independent of the municipality. The content and format of the contracts are regulated mostly by sectoral laws, or in specific cases (like concession agreements) by separate laws. Contracts are also made between the customers and service providers; such contracts are mostly regulated by the civil code (water services, district heating, waste collection, etc.)

It is preferable for public contracts to be awarded through public tenders. These rules are already developed in most of transition countries. Public procurement legislation was among the new laws approved in the early stages of preparing a developed market environment. Following international standards, the subjects, thresholds of public procurement and procedures were set. Public entities, including local governments and their budgetary institutions have to follow the general procurement rules.

### **2.2.6 Price Formulation**

In a market environment user charges should reflect the total cost of the service, and at the same time should signal the demand for the public utility service. Both of these requirements were new for transition countries, where consumer prices were heavily subsidized, and service companies were compensated for their lower revenues. Social policy considerations determined the price levels and preferences, so they did not indicate the real needs for a particular service.

During the transformation of the public utility sector, each country went through a similar process, only the speed of changes being different. The basic factor behind these changes was the cut in state and other government subsidies to public utility services. In some countries, this was accompanied with the decentralization of price setting competencies, parallel to the devolution of service ownership and management functions.

The present price setting authority follows the characteristics of utility services. The more connected the provision to the networks and the greater the chance of monopolies, the more regulated and centralized is the method of price setting. User charges are often defined as official prices, calculated at different levels of government. The energy price formulation is well established in many countries, where energy regulatory bodies were established. In Poland and Romania, for example user charges for district heating are defined by the central regulatory agencies, mostly after consultation with the competition offices or boards. In Estonia the price for heat is inspected and approved by the Energy Market Inspectorate, with respect to companies that sell more than 50,000 MWh per fiscal year. Local governments have the responsibility to set the price for the smaller companies. There are now 18 separate energy regulatory bodies in the region, most of which have tariff setting competency and experience.

District heating is the subject of subsidies in, for example, Romania, where the "national reference price" is set for the consumers. This is driven by the costs of the large national energy companies and it is accompanied with a subsidy to local governments, where the local price is above the national reference price.

Price-setting mechanisms and related regulatory institutions are rather underdeveloped in the region. Prices are approved or controlled by some national agencies (ministries and boards), but they are usually calculated on a cost-based method. Modern techniques of price-capping, or profit-rate regulations, with some exceptions (e.g.

Hungary), have not been introduced. This fact does not support privatization and structural changes in the sector.

Government subsidies and various forms of "bailing out" still exist. All these factors have an unfavorable impact on those local utility services, which are dependent on or part of the energy sector.

However, the price formulation function is an emerging and efficient component of regulation. The assignment of the price-setting authority, the allocation of competencies to influence the methods of designing user charges, is part of the public administration and local government reform process.

### **2.2.7 Protecting consumers**

The demand for consumer protection was raised immediately after the transition. The democratic changes made clear the need for the consumer protection in the area of the monopoly services independently whether the services are provided by the public or the private sector. It became clear that new forms of consumer protection had to be designed, when no organizations protecting the public interest in services like water, heating and energy. Several new areas of legislation provided basic conditions for supporting consumer-producer relations. Antimonopoly and competition laws, acts of price setting, and contracting regulations are all passive ways to ensure a balanced relationship between buyers and providers of a service.

In the area of public utility services and contracts, there is a need for more active forms of consumer protection. For example, free access to information is a critical condition for protecting consumer rights, when local public services are contracted out by the municipality. Also customers should be involved in the regulatory process, when service standards, conditions and prices are determined.

In some sectors the regulatory agencies might have a stronger influence on service provision, so they indirectly have more means to protect consumer rights. Especially in the case of district heating, energy regulatory agencies are involved in price setting, which is the critical component of the consumer-provider relationship. In Hungary, a public utility contract is also subject to consumer protection procedures.

Another question is what means are available for consumer protection agencies to enforce their clients' interest. Generally, legal procedures, in some cases penalties and fines, are the only available measures.

## **3. THE INITIAL CONDITIONS AND REFORM AREAS**

When the transition started, large differences existed among the companies, cities and countries involved, and since changes are taking place at different speeds these differences have intensified. The main dividing line is between the utility companies in Turkey, the Balkans, the Baltic states, and East European "EU accession" countries on the one side, and those in the FSU countries on the other. Still, it is useful to sum up the features that were common to the urban utility companies in all the transition countries early in this decade, some of them having remained to the present:

### **3.1 Organizational structure of the sector**

Organizationally, water and public transport services appeared either as municipal departments, or as public enterprises in state or municipal ownership, with no freedom to set prices and minimal degrees of managerial independence as concerns service policies and operational matters. Organizations tended to be top-heavy, and operational and management procedures were bureaucratic. There was a tendency towards self-sufficiency, e.g. by setting up internal units for the production of needed inputs, as opposed to buying these services from outside sources. Staffing was excessive, following generally from the full-employment approach practiced in social economies, and managers' ability to fire on performance grounds was very constrained.

### 3.2 Financing the sector, pricing

Companies had old and technologically obsolete plants. Energy use was especially inefficient, in great part because fuel and electricity were significantly under-priced. To these should be added problems introduced by the transition, notably difficulties in replacing spare parts and equipment, due to the breakdown of the industrial division of labor in the socialist block. Investment decisions were not based on economic criteria, but in response to centrally established norms, costs of operation per unit of output were higher than they should be. Because of budget constraints for maintenance, there was a tendency to overcompensate by over-designing new investments. Quality of materials was often poor.

Another major source of deviation of accounting costs from economic costs was the distorted price of electric energy and other fuels endemic in the pre-transition period, and still prevalent in Russia and some other countries. This distortion was especially significant for water and district heating companies.

Prices charged for services were low relative to the cost of supply, and sometimes zero (as for water in Turkmenistan, for example), reflecting policies pre-dating transition and various obstacles to changes within the transition process. Utility prices were so low across the board in Russia that as late as 1994 household expenditure on housing and related utilities (water & sewage, waste collection, heating, gas, electricity) added up to less than expenditures on tobacco and alcohol.

Prices were not structured correctly, in the sense that they were not related to the economic and even accounting costs of provision to different customers, or to the amount of use. Cross-subsidies between client categories were common. In the water sector, for example, unit costs of supplying households were higher than those of supplying industrial and commercial users, whereas prices charged for the latter were higher.

Legal provisions to adjust prices in line with inflation did not exist. Historically, price adjustments had been made rarely and ad hoc.

Subsidies were provided by the local and/or higher levels of government to make up the gap between business revenues and costs. In aggregate, subsidies have figured prominently in local government expenditures. Even for individual companies, subsidies may have been so large as to be among the largest items in the government's financial statements.

Total revenue (business revenue plus subsidies) may not have covered total (accounting) operating costs. In the case of critically impoverished cities, total revenues may not even cover direct operating costs. The reasons for these accounting losses were different. Primarily, the level of subsidies required was not affordable to the government, which was under financial pressure from several sides. In certain ownership arrangements (e.g. service providers as budget units of the local governments), balancing the accounts of individual units was not considered important. Subsidy payment may have been gauged to cover direct operating costs exactly, as has been in the case of Riga, Latvia. The government then would decide on an ad hoc basis whether and when to provide funding for replacement investments.

### 3.3 Management issues

Company accounts did not reflect the full economic costs of operations. Some activities, such as barter trade, were not recorded. Depreciation accounting was not based on the replacement value of plant and equipment, or was not calculated at all in some forms of ownership (e.g. when the service provider was a municipal department). Therefore, even if companies covered their accounting costs, this did not generate sufficient funds for replacement.

Generally the approach to accounting was inconsistent with western practices or meant to mislead<sup>2</sup>. Accounting was not meant for, and was never used as a management tool. In some cases, different departments of the same enterprise kept separate accounts, which were never combined in company accounts (e.g. Baku Water). Revenue collection was poor, and there was a high incidence of non-payment by households and institutional

<sup>2</sup> A good example for this is the habit of distributing after-tax "profits" as wage bonuses by Russian water companies, to minimize tax paid on the wage bill.

clients. Bucharest Water Company for example collected only 68% of its billed revenue in 1995, and by the end of the year had four months of accounts outstanding; the main defaulters were public sector customers. Non-payment may have been a matter of poor organization and performance of the company, a reluctance due to recognition that people were unable to pay (e.g. in the presence of months of unpaid wages and pensions, as in several FSU countries), a fear of social conflict, or a combination of all these.

Bills were often based not on actual consumption but on norms. This was especially the case with water bills, where only the total output leaving the production plant was metered, then "allocated" among the various groups of users using standard coefficients.

In some countries, billing and collection was not done by the service companies, but by specialized local agencies for several or all utilities together; the resulting revenue was "allocated" among service companies independent of costs or output measures.

The funding gap gradually added up to poor corporate financial health, especially with respect to a lack of working and investment capital. Different methods were used in response. Depending on the magnitude of the financial problems, the array of adaptive actions included reducing/eliminating expansion investments, then postponing replacement, deferring maintenance, reducing services, not making contributions to social funds, not paying bills owed their own suppliers, and eventually not paying salaries.

### **3.4 Sector performance**

Service levels, in terms of quantity and/or quality, in a variety of cases, ranged from very poor to quite high. For example, the services of Bucharest Water Company featured daily interruptions of water, variable water pressure, and inoperative plumbing fixtures in households.

Sudden and large up or down changes were experienced in demand levels due to various economic and political developments accompanying transition. This included such diverse cases as falls in water consumption due to large-scale closures of inefficient industries (Riga); increases in water consumption due to a large influx of population to the cities (Yerevan, Tbilisi). Each of these had a major impact on both the costs and the revenues of service companies.

## **4. REFORM STRATEGIES IN THE SECTOR**

The reform of the water, sewage and district heating utilities had a dual focus: aiming first to sustain services deemed essential for the population and local economy, but also to restructure the service suppliers to ensure their financial sustainability and to improve their efficiency. In almost all the countries the reform consisted of actions generally falling into some or all of the following five categories:

### **4.1 Internal restructuring of service companies**

Service companies after the transition came under financial pressure with limited access to the user charges (tariff control) and increasing operation cost (energy cost, salaries etc.). In a proper institutional environment, the management of the service companies was interested to look for solutions to decrease the deficit, reorganizing companies for higher efficiency.

The elimination of departments supplying non-core services, either through outright closure or first by setting them up as subsidiaries and then offering them for sale to private parties was one of the typical steps the management had chosen to take. Another typical solution was the introduction of new work methods and tools (e.g. information technologies), accounting standards, and financial management, which could have an important effect on the efficiency.

The changes affected the workforce as well as the management in adjusting to the new conditions had to downsize staff and/or change the skills mix. The upgrading knowledge and skills of managers and staff is necessary to improve the efficiency.

With economic recovery a shift in investment and development policies has been inevitable, as the new investment decisions had to be based on economic criteria.

## 4.2 Legal changes

The state owned service companies turned into commercial companies: the status and ownership of service companies have been changed by setting them up as public-owned but separate companies operating under commercial law. The service companies became accountable to the "owners", in the first stage, to local governments (or other levels of subnational government), which meant a re-allocation of the decision-making authority between service companies and the local government in matters such as service parameters, prices and remuneration, staffing, wages, budgeting, and operations-oriented matters. In a later stage, more and more local governments introduced a performance (service) agreement, as a common instrument to detail the new relationship between service providers and the local government.

## 4.3 Demand-oriented changes

After the transition, the reform in pricing/subsidy policy had an effect on the demand side, in most of the cases, decreasing the consumption. As a part of the adjustment process, the service companies had to change their output (for example, in the water sector), and redesign the services and service networks to decrease the inefficiency and give more possibilities to the households to regulate their consumption (metering at household level). But in the same time they have to improve the revenue collection practices as well. In some cases a change from emphasis on quantity to quality of services delivered has become an important aspect.

## 4.4 Market-oriented regulatory reforms

Radical changes have taken place in the market structure of the service sector. It meant, first of all, a break-up of the monopoly of traditional service suppliers, which, by introducing subcontracting, multiple service suppliers, and concessions, enabled the private sector to enter. Another element was the introduction of private sector operators through management contracts, with a view towards privatization of service provision in the future.

## 4.5 Local government reform

After the local government reforms, the issue of the institutional and financial capacity of the local governments became crucial. Through experiences and training, the new local governments were able to handle the new functions, decision-making powers and responsibilities given to them by decentralization.

**Table 4. Transformation of Service Organizations**

<b>Water Services</b>
<i>Extensive fragmentation</i>
<b>Hungary:</b> 5 national and 28 regional water and sewage companies were dissolved and reconstructed as 5 state owned regional companies and 400 local government service organizations in 1991/92
<b>Poland:</b> 50 single purpose water enterprises (40 managed by the region) were fragmented. A survey in 1999 showed that water services were provided by 396 budgetary enterprises, 344 companies, 19 state-owned enterprises, 10 budgetary entities.
<i>Changes in organizational forms:</i>
<b>Romania:</b> by creating the regie autonomes, former SOEs were split among the county local governments, under semi-public forms of operation.
<i>Exceptional 'municipalization' and privatization</i>
<b>Slovakia:</b> 5 state, 2 local and 2 private companies, with a mandate to transfer them by December, 2001. (A similar process is followed in the Czech Republic, where the Prague water works was recently privatized.)

### District Heating

*Transfer to local governments:*

**Hungary:** 290 local heat generation and distribution companies have transferred to 103 local governments

**Poland:** 55 regional heat supply companies were transferred to approximately 600 heat suppliers at 'gmina' (local authority) level

## 5. PRIVATIZATION

Privatization is the key phenomenon of economic transition in the region. Seeking real owners was the strategic goal of the general participation model primarily followed by Hungary and Poland. Other solutions in the business sector, like voucher-based privatization, were mainly preferred in the Czech Republic and it was also typical in Russia. In urban services this model was not widespread, presumably for technical reasons.

In the case of communal services, a model of small-scale privatization could be followed. In the case of former local monopolies, attempts are being made to divide these services into smaller units to be put into private ownership. Typically, park maintenance services, road maintenance, public cleaning, solid waste removal, individual liquid waste removal, and so on, were reorganized in this way.

There are various methods of small-scale privatization. The most typical forms are as follows:

- management buy-out (especially former budgetary units, and enterprises);
- re-privatization/restitution (the former social housing sector in Czech Republic, Slovakia);
- the right to buy (selling social dwellings to sitting tenants, e.g. in Hungary);
- sale of assets or shares (like profitable companies dealing with road maintenance, etc.)

In some cases, public functions are eliminated by privatization; in others responsibilities remain public to some extent. For instance, the provision of park maintenance remains a local responsibility even if private firms implement it. With re-privatization or sale to sitting tenants of formerly state-owned dwellings, municipalities can reduce most of their maintenance costs. Finding new owners seems to be easier in these sectors in most of the transition countries, which is why reorganization was more flexible here than in the other utilities.

Public utility services as natural monopolies are subjects of large-scale privatization. Generally speaking large-scale privatization means breaking up monopolies of large state-owned firms and putting them into private hands. This step can be made in at least two ways. One is to transfer assets to private ownership without making any crucial changes. In this case state-owned property becomes a private monopoly, for example in Russia in the energy sector, including gas and electricity.

The other route is to transfer the ownership to competitive companies, whilst preserving the necessary public functions under public control. This is more complicated and requires political commitment, along with more time and deliberation.

## 6. CONSUMER PROTECTION AND SOCIAL POLICY CONSIDERATIONS

During the past decade, the development of public utility services has been influenced by different factors. The first set of factors focus on the improvement of service performance, demanding capital investments, and the raising of the technical standards of the services. The next set of factors related to the financial requirements because the necessary resources had to be made available. Efficient service delivery and modern financial techniques were the necessary conditions for internal and external funding. The third set of factors includes the social policy aspects of utility and communal services tended to set the priorities. However, these social considerations had to be balanced with technical (capital investment) goals and financial (efficiency) objectives in the development policies. In the case of local public utilities, all these three aspects of transformation should develop jointly.



One form of ensuring social policy objectives is to establish customer protection mechanisms. This is a crucial condition for developing a modern regulatory system. Independent and professionally sound regulatory institutions automatically protect the interest of the consumers. They have an impact on service performance through licensing, and the monitoring of service delivery. They might prevent customers from a major breakdown of utility services by guaranteeing professional standards and financial disciplines in the service organizations. By controlling price setting, regulatory bodies may ensure the principles of lowest cost pricing, fair methods of price adjustment formulae, and the curbing of unjustified increased cost pressure from service organizations. This influence on the price setting mechanism is extremely important in an inflationary economic environment, which was typical in almost every transition country.

Social policy objectives are often misinterpreted in the utility sector. The example of the energy sector shows that keeping prices at an artificially low level will lead not only to economic inefficiency, but to unexpected social consequences. Low energy (or any other utility price) or lower VAT tariffs will provide more subsidies to large consumers, who are probably better off than the poor customers. This will also lead to economic distortions and import dependent sectors for high budget subsidies. The preferred privileged status of these public service providers might also lead to monopoly situations, which further accelerates inflation. Accordingly, the present practice of flat low utility prices in many transition countries should be moved towards market-based prices. This shift should be combined with targeted social policy measures, with means-tested subsidies and other social policy measures.

The basic issue the sector in the region faces is that the most municipal utility services are under-priced; they are being decapitalized due to political pressure to keep utility service prices too low. Efficient economic policy requires a sound economic pricing which force the politicians to address the needs of vulnerable populations. Governments best deal with the needs of vulnerable populations; utilities are not good deliverers of social welfare but can sometimes do this through tariff adjustments. Regulatory bodies can play a key role by establishing economic tariffs that allow the financial sustainability of the municipal utilities.

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## 8. APPENDIX 1. THE ROLE OF THE LOCAL GOVERNMENTS IN THE ENERGY SECTOR IN SELECTED TRANSITION COUNTRIES<sup>3</sup>

### 8.1 Romania

Energy sector activities are regulated by the provision of the Emergency Ordinance no. 63/1998 of the Romanian Government. The object of the emergency ordinance is ensuring the energy supply security of the coun

<sup>3</sup>See <http://www.erranet.org> <<http://www.erranet.org>> for more detailed information.

try by a corresponding supply of the national economy with higher quality electricity and heat at high standards and accessible prices, the rational use of fuels and energy, protection of customers' interests (of the consumers of electricity and heat) and setting up a normal, competitive environment by providing complete environment protection. ANRE (the Romanian Electricity and Heat Regulatory Authority) has the following competencies:

- issue, grant, suspend or withdraw authorizations and licenses with respect to the companies in the energy sector as well as those likely to be established as a result of the opening up of the electricity and heat market
- set out criteria and methods of calculating tariffs and prices in the electricity and heat sector
- draw up regulatory contracting procedures regarding the sale and purchase as well as the supply of electricity and heat to end-users;
- set out eligibility criteria for electricity consumers
- issue technical and commercial regulations for the companies in the energy sector, required for an efficient and transparent operation
- draw up and issue the required regulatory framework for the efficient use of electricity and heat
- accommodate possible disagreements that come about upon the ending of a supply contract
- monitor the enforcement of the independent decisions by the companies in the energy sector and impose penalties for non-compliance
- develop programs, including assistance programs, subject to the approval of the minister of industry and trade.

In 2001 the Romanian Parliament approved the Public Services Law no. 326/2001. This law approved the organization of a new regulatory authority for the water, sewage and other public services. This regulatory entity will become operational in 2002 and its competencies will be approved by a governmental instrument.

## **8.2 Lithuania**

Gas and electricity utilities are still governed by the State. Municipalities govern heat and water supply companies, which are independent in each city or district.

## **8.3 Hungary**

The Government prepares the energy policy of the country, the energy laws (electricity, gas and district heating), which are approved by the Parliament. The Ministry of Economic Affairs enforces the law, creates the executive order for the law and the secondary legislation. The Hungarian Energy Office is a state administrative agency with independent responsibilities and jurisdiction at a national level, controlled by the Government, and supervised by the appointed minister. The main tasks of the Office are the regulation and supervision of energy activities, and the protection of consumer interests. The tasks of the local government are to issue licenses, supervise the district heating companies (which are in many cases in local government ownership).

## **8.4 Czech Republic**

The central government is responsible for the creation of energy policy. The Energy Regulatory Office (ERO) was established as of 1 January 2001. The Energy Act has established ERO as an administrative authority in charge of regulation in the energy sector. The ERO is intended to accelerate the approval process for price adjustments and to make it more efficient. ERO has taken over energy price setting powers from the Ministry of Finance. The ERO approves the rules for the operation of the electricity transmission and distribution systems; sets forth the required quality of supplies and services; and lays down the rules for energy market organization and issues other decrees containing for instance rules for price setting and regulatory accountancy.

## 8.5 Ukraine

The activities in the energy sector of Ukraine are carried out within the scope of laws passed by the Parliament (the Supreme Rada of Ukraine) and signed by the President of Ukraine. The Ministry of Fuel and Energy of Ukraine is the central institution of the executive power managing the energy sector. The National Electricity Regulatory Commission (NERC) is the state regulatory institution in the electric energy sector of Ukraine. Local government units implement state policy with respect to the coherent development of the utilities sector in the areas of water supply, sewage, and centralized heat supply.

## 8.6 Kazakhstan

The Ministry of Energy and Mineral Resources of the Republic of Kazakhstan is the central executive authority carrying out the management of energy sectors, including the nuclear energy sector, and is authorized to carry out the functions of state management and control within the range of its competence. The main tasks of this ministry are as follows:

Elaboration and implementation of state policy in the energy sector, elaboration of programs aimed at developing and reforming the fuel/energy complex, participation in the elaboration and implementation of the investment policy of the Republic of Kazakhstan.

Participation in the implementation of the policy of efficient management of state assets, privatization of state-owned property in the energy sector. Energy monitoring of the activities of energy enterprises is carried out on behalf of the state.

The Agency of the Republic of Kazakhstan for the Regulation of Natural Monopolies, Protection of Competition, and Support of Small Businesses is a state institution authorized to carry out the regulation of prices (tariffs) for the services of entities of natural monopolies and market participants with a dominant position in the market. The Agency consists of a central administration and territorial departments. The activities of national companies are regulated by the central department. Activities of the RECs (Regional Energy Commissions) and of the utility companies are regulated by the territorial departments.

The central department of the Agency is responsible for regulation in the water supply and sewage sector. It is actually responsible for the elaboration and implementation of the tariff calculation methodologies for services provided by the owners of natural monopolies. Moreover, the Agency establishes tariffs for the main lines of water supply (canals and main water supply lines). Territorial departments approve tariffs for water supply and sewage in the cities and settlements.

## 8.7 Poland

The Energy Regulatory Authority (ERA) regulates energy companies (gas, electricity and district heating) who have monopoly positions in the market, and promote competition in all energy sub-sectors. Their authority includes:

- Licensing energy activities (production, storage transmission/distribution and trade)
- Tariff approval (price regulation) and control.
- Approval of development plans.
- Controls quality customer service standards.
- Resolves disputes.
- Imposition of financial fines.
- Cooperation in counteracting monopolistic practices.
- Publish information on energy efficiency.
- Collects and processes information on energy economy.
- Control of qualifications

The ERA is currently financed by the state budget, however funds have come from annual fees paid by licensed companies to the state budget.

## 8.8 Slovakia

The Ministry of Economy of the Slovak Republic is the central authority of the government of Slovak Republic for:

- a.)* energy management, including nuclear fuel management and storage of radioactive waste
- b.)* district heat delivery and the gas industry
- c.)* mining and processing of solid fuel, oil and natural gas extraction, mining of mineral and non-mineral raw materials, search for, exploration and mining of radioactive materials

The State Energy Inspectorate is subject to the Ministry of the Economy of the Slovak Republic (ME SR). ME SR, in the field of energy, including nuclear fuel management and storage of radioactive waste, in the field of heat delivery, and the gas industry, in relation to state economic policy:

- 1.* develops and ensures the implementation of energy policy within the scope of SR,
- 2.* analyses the conditions of the production basis of the power system, as well as of the power transmission system and co-operates in the generation of their development concept,
- 3.* co-ordinates the foreign co-operation of operators of the transmission system in the SR with neighboring countries and relevant international organizations,
- 4.* co-ordinates activities in the preparation of plans in gasification with energy entrepreneurs,
- 5.* ensures the execution of state administration in the field of mineral resources mining, gas industry, electrical energy and centralized heat delivery,
- 6.* directs and controls execution of state administration at examination of precious metals,
- 7.* develops system measures and recommendations of the International Energy Agency, International Atomic Energy Agency and European Energy Charter,
- 8.* develops and implements the restructuring program of energy industries and the downsizing of the coal industry,
- 9.* executes the administration of State Fund for the Disposal of Nuclear Energy Equipment, Spent Fuel and Radioactive Waste Disposal.

## 8.9 Regulatory Office for Network Industries of Slovakia

The basic function of the office is to regulate entrepreneurial subjects that have the character of a natural monopoly and create an environment close to a competitive environment, where regulated subjects will be urged to perform effectively, which will preserve the reliable, economic and qualitative delivery of goods and services.

The objective of the Regulatory Office is to protect the interests of consumers against monopolistic behavior of regulated enterprises. Simultaneously, the office protects the interests of entrepreneurs and investors by creating the conditions for the attainment of an adequate economic return on their investments.

The Office

- a)* decides on licensing, and changes or revokes permits to perform regulated activities
- b)* holds and publishes the lists of holders of permits for the performance of regulated activities
- c)* regulates prices according to the relevant legislative instrument ("Regulatory Act") and according to the relevant directive
- d)* decides about business conditions in the performance of regulated activities,
- e)* gives preliminary approval for construction, reconstruction or abolition of objects and devices serving for the performance of regulated activities, if specifically defined by a relevant decree,
- f)* decides about the duty to allow access to the grid according to the specific decree,
- g)* practices supervision of observance of the Regulatory Act and other related directives,
- h)* imposes measures to remove defects and imperfections found during surveillance of observation of the Regulatory Act and related directives,

- i)* imposes sanctions for the violation of obligations resulting from the Regulatory Act and related directives,
- j)* issues, on the basis of the Regulatory Act, generally obligatory juridical directives, which are promulgated by publication in the Code of the Slovak Republic,
- k)* participates in the preparation of bills and decrees of the government of the Slovak Republic relating to the regulations in network industries.

The Office decides about withdrawal of the regulated subject or group of regulated subjects or regulated activity or group of regulated activities from regulation, if the reasons for regulation have disappeared, particularly if the power of the market alone is sufficient to preserve the purpose pursued by the regulation.

Antimonopoly Office of the Slovak Republic

The Antimonopoly Office is the central authority of the government of the SR for the support and protection of economic competition. It was created by the act of the Slovak national council, number 347/1990, the Code about the Organization of Ministries and other Central Authorities of the Government of the SR of 28 August

1990, as amended by later decrees. The exclusive power of the office in the field of the protection of economic competition is provided by Act number 136/2001 of the Code.

The main role of the office is to protect and support economic competition, create conditions for its further development, as well as to prevent the formation and maintenance of monopoly or dominant positions in entrepreneurial subjects that might obstruct or inhibit economic competition. Its competencies are defined by the Act, which represents a tool to ensure the system of the protection and creation of competition.

The scope of activities of the office:

- if the Office considers an agreement between entrepreneurs to inhibit competition, it issues a binding rule to delay the fulfillment of such an agreement,
- if the misuse of a dominant position takes place, the office issues a ruling about the duty to abstain from the pursuance of such an opportunity,
- issues decisions about concentration,
- demands rectification from government authorities and municipalities, if these bodies suppress economic competition,
- supports economic competition in the process of privatization,
- participates in the identification and elimination of other barriers preventing other entrepreneurial subjects entering the market,
- provides publicity for the principles of the protection of economic competition,
- represents the SR in international dealings and agreements in the area of economic competition.

General cross-sectional aspects that the Office takes into consideration during the evaluation of the competitive environment, its support and protection:

- market development,
- structure of the market and the market strength of existing competitors,
- substitution possibilities,
- opportunities for and capacities of new subjects to enter the market.

## 8.10 Kyrgyz Republic

The policy and main development trends of the country's energy sector are determined by the President of the Kyrgyz Republic.

The Parliament ("Zhogorku Kenesh") of the Kyrgyz Republic carries out the functions of legislative authority and passes the laws regulating the development of the country's energy sector.

The highest executive authority of the country is the Government of the Kyrgyz Republic together with its subordinate ministries, state committees, administrative institutions, and local state authorities.

The State Energy Agency under the Government of the Kyrgyz Republic is an administrative institution performing functions of the executive authority on a regular basis. In accordance with the laws on the Energy Sector, the Electric Energy Sector, and on Licensing it performs the task of regulating the authority of the country's energy sector. It establishes tariffs for heat and electric energy, and issues licenses to carry out business in the energy sector by any organization, irrespective of its form of ownership.

The local authorities play the role of partner in the area of centralized heat supply, provide assistance locally in the case of breakdowns in the heat supply, and carry out the billing for heat received by budgetary consumers. They determine the components of expenditures of the local budgets for the support of the utilities sector. They can increase the operational expenses at their own discretion.

## **9. APPENDIX 2. SPECIFIC FEATURES OF DISTRICT HEATING SYSTEMS**

### ***9.1 What is district heating?***

Usually, the term "district heating" describes a system supplying heat produced centrally in one or several locations to a non-restricted number of costumers. It is distributed on a commercial basis by means of a distribution network using hot water or steam as a medium. Often, the heat is also used for domestic hot water (DHW) and industrial purposes, such as process heat. Although most people understand district heating to be large centralized urban heating systems, many national statistics also include very small heating systems. The term district heating system is usually linked with the activities of the respective district heating company. Such a company usually operates larger centralized district heating networks, smaller isolated "block" heating systems (supplying only a small number of buildings), and even individual boilers in single buildings.

### ***9.2 Common issues of municipal heating systems in transition countries***

Some generic issues can be identified which tend to be common in most municipal heating systems in the region. These are the following:

- High cost of heat delivery, both in absolute terms and relative to the quality of heat supply.
- Inefficient use of heat at the household level.
- Non-payments of bills and costumer arrears.
- Tariffs inadequate to support either operating costs or investments in system maintenance and rehabilitation.
- Environmental problems, which affect large populations in cities where district heating plants burn low-quality fuels and are located in densely populated areas.

Numbers of initiatives are needed to address the above issues. The provision of additional funds for system rehabilitation and upgrading of the district heating supply systems or for investment in more decentralized solutions or end-user installations is one aspect of the solution. The kind of heating system that will, in principle, be the most cost-effective depends, to a large extent, on local factors such as heat load density (heat demand compared to the service area), but also on the extent to which cheap heat sources (such as cogeneration or local fuels) can be made available, which often depends on national energy policies. Furthermore, an efficient macro-economic and sector framework is needed to enable sound competition and establish the rules for necessary tariff reforms. Companies active in the heating sector need to act like commercial entities. A first step in this direction is the restructuring and corporatization of the mostly municipal heating companies. This would include the reduction of arrears, in terms of both accounts receivable and accounts payable and should be complemented by a system of targeted subsidies for low-income consumers.

The district heating system in a major city in transition countries typically consists of one or more large

The heat transport system of a large district heating network consists of transmission, primary distribu-

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