

**Key Tariff Reform Issues in the Energy and
Water Sectors of the ENI Region**

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INTRODUCTION

The tariff structure in the energy (e.g., electricity, gas, heating) and water sectors in Eastern Europe and the Newly Independent States (ENI) have shared several issues in common prior to and even during recent reforms. These issues include:

- Low tariffs subsidized by the government and cross-subsidization whereby the industrial sector is charged high tariffs in order to cover the low tariffs charged to residential consumers
- Lack of an effective system to measure consumption (little or no metering for individual households)
- Lack of an effective system to enforce payments and collection of bills
- As a result of the above, wasteful and inefficient consumption of energy and water services

Some reforms have already been undertaken to resolve these issues, while others are being recommended and considered. Some of these reforms and recommendations include:

- Increased tariffs, especially for residential users, with the goal of full cost-recovery
- A tariff structure based on actual consumption
- Improved metering and bill collection
- Social protection from the impact of increased tariffs¹
- De-politicization of the tariff-setting process

It is argued that although these reforms have been underway across the region and significant progress has been made, further reform is still needed. In many cases, the tariff increases still fall short of cost-recovery levels and when setting the tariffs, inflation and future operating and maintenance costs have not been sufficiently factored into the equation.

The paper is organized in the following manner. First, a discussion of the key issues concerning the tariff system prior to and during recent reforms is given. Second, a discussion of the reforms that have already been implemented or are being recommended by practitioners is given. Third, a summary of the key issues, recent reforms and policy recommendations is given.

KEY ISSUES

Prior to and even during recent reforms in the region, the tariff structure in the energy and water sectors has been plagued with a variety of issues. These issues are outlined below.

Low Tariffs and Cross-Subsidies

¹ This section will also include a brief analysis of recent housing allowance (HA) programs.

Under the Soviet system, tariffs in these sectors were set by the government and were too low to cover actual operating costs. Even today, in some cases, tariffs still do not cover full operating costs. As a result, a gap has existed between what the government pays to provide the services and what consumers have to pay to use the services. One way the state has sought to narrow this gap is through the promotion of cross-subsidies whereby industrial consumers are charged higher tariffs than residential consumers, regardless of the actual amount of consumption of the services. In addition to the inequity of such a system, cross-subsidization is also inefficient because it could result in the industrial sector charging higher-prices for its goods in order to cover the higher tariff charges. This scenario benefits no one because few people can afford higher-priced goods and it can also decrease the competitiveness of the firm.

Ineffective Residential Metering

In the Russian water sector, effective metering and measurement of consumption has been lacking. Almost all of the consumers with functioning meters are in the industrial sector, but these consumers only represent less than one percent of all customers (PADCO 1996). Non-metered customers, such as residential users, are charged on the basis of water use “norms” that are set by the central government. These norms are merely estimates, derived from the type of amenities (e.g., the number of taps in their household) customers have access to, of how much these residential customers will consume water services.

Similarly, metering for residential customers is also a problem in the energy sector. In the Ukraine, for example, most customers receive gas and heat through central distribution networks and these networks are not individually metered (IEA 1996). As a result, customers can not be charged according to their actual household consumption characteristics.

Inefficient Payment and Collection Systems

In the water sector of Russia, the city and the Vodokanal, the local water agency, split the billing and collection responsibilities. This division of labor is problematic for the Vodokanal because the city has no real incentives to enforce payments since it is not the primary water service provider (PADCO 1996). Another difficulty the Vodokanal faces in collecting payments is that customers pay their bills at a local bank or post office which then forwards their payments to the city, which then forwards these payments to the Vodokanal. A third problem is that the city usually submits customer payments to the Vodokanal in the forms of promissory notes, bartered goods, or debt-swaps, instead of cash.

The city and Vodokanal do have mechanisms to enforce payments but rarely utilize them because of the pressure the industrial sector can exert as a major local employer, and because the city, not the Vodokanal, administers most of the billing and collection systems, and controls most of the Vodokanal’s customer payment records.

Wasteful Consumption

In both the energy and water sectors, there is little or no incentive for residential customers to consume services efficiently. Due to the lack of metering, low tariffs, weak payment and bill collection systems, and the fact that the government automatically charges customers according to predetermined “norms”, regardless of actual consumption, customers are free to consume energy and water as they please. As a result, wasteful use of these services is rampant.

KEY REFORMS & RECOMMENDATIONS

Tariff reforms have been underway since the early 1990s. However, some reforms are still being recommended and may not have been implemented yet. These reforms and recommendations are outlined below.

Increase Tariffs to Cost-Recovery Levels

Tariffs have been raised, especially for residential consumers, and must continue to be raised in order to reduce cross-subsidies and cover costs. Increased tariffs should not only include current operating and maintenance costs, but should also leave adequate margin for necessary future investments (e.g., new technology) and factor in inflation. If tariffs are not raised to cost-recovery levels, the state will continue to be overburdened. Furthermore, low tariffs lead to inefficient use of energy and water services.

During the tariff-setting process, total costs must be determined first. As mentioned, these costs must include current and expected future costs. Overdue debts should also be included as an expense and incorporated into these costs.

Although most of the countries in the region have been raising their tariffs, more reform is needed. For example, in the Czech energy sector, tariff increases have been occurring slowly in the industrial sector and not really occurring at all in the residential sector, meaning that current tariff levels have not been able to cover operational and maintenance costs (IEA 1994). Nevertheless, current reform in the Czech Republic, as well as Poland and the Slovak Republic, is being designed to reflect costs of supply in different pricing periods (peak, shoulder, off-peak).

Tariffs Should Reflect Actual Consumption

Tariffs should be charged according to actual consumption of services. Consumers should be grouped according to their consumption characteristics so tariffs reflect actual costs associated with serving each customer group. As mentioned above, consumers of energy services should be billed according to their use of these services during specific pricing periods. Also, it has been recommended that price distortions, such as those related to social categories (e.g., veterans, Chernobyl victims), be eliminated (IEA 1996). The most efficient method of ensuring tariffs reflect actual consumption is through increased metering of residential households.

Improve Metering and Bill Collection

Improved metering and bill collection is necessary in order to measure approximate consumption of services, increase efficiency, and decrease waste. Metering will also promote financial savings, because the quantity of subsidized water consumption will be capped, and energy savings, because the consumption of hot water will be reduced. Furthermore, an effective metering system should be linked to an efficient structure (related to actual consumption of services) of tariffs. Lastly, meters need to be well maintained and read regularly.

Provide Social Protection from Tariff Increases

In the energy sectors of the region, price reform is already underway but many governments are concerned with the social effects of higher prices. In order to minimize the impact of increased tariffs, it has been recommended that the tariff-setting process be gradual. For example, it has been suggested that the transition to increased tariffs occur in three stages: first, to recover maintenance expenses; second, to cover maintenance and major repairs; and third, to cover maintenance, major repairs, and capital asset replacement or purchases (Mamatkanov and Shavva 1996). For the Ukraine, it has been recommended that the government cushion the impact of increased prices by establishing an income support program for low-income groups so that energy expenses won't surpass a designated share of total household income (Vaughan 1996).

Similarly, in the housing sectors of Russia, Slovakia, and Ukraine, housing allowance (HA) programs have been implemented to protect households from paying an excessive share of their income toward housing costs. Poor households are given a subsidy to cover part of their housing expenditures. According to a 1996 USAID final project report, in the case of the Ukraine, families would be paid a subsidy if their monthly housing payments exceed 15 percent of their total household income (Vaughan 1996). Furthermore, the HA program will determine a maximum standard rent (MSR) as part of the formula for deciding who is eligible for the program. The program will also determine total program costs and the amount potential recipients can receive.

De-politicize Tariff-Setting Process

In the Russian water sector, it is politically difficult to raise domestic tariffs not only because of the potential social impact, as mentioned above, but also because of how the tariff-setting process has historically been set up. Prior to current reform, tariff increases were set by the city and the oblast through a long process requiring approval from various bureaucratic layers and without any input from the customer groups—residential and industrial consumers—that would be most affected by the increases. Current reform, however, mandates that the process be streamlined so tariffs will be set by only one organization. This reform can occur through establishing an independent regulatory commission to review, approve, or reject any requests to change tariff levels. Decisions regarding tariffs should be binding and include representatives from all groups.

In a similar vein, it has been recommended that the tariff-setting process in the Ukrainian energy sector be free from political interests (IEA 1996). The government's functions as energy owner, operator, and regulator should be clearly separated, and the government should establish an independent regulatory structure, free of pressures from energy suppliers and distributors, that includes all parties in the decision-making process.

CONCLUSION

The energy and water sectors of the ENI region have shared many similarities in their past tariff structure and current reform process. These issues have included a system of low tariffs and cross-subsidies; an ineffective metering system; ineffective systems to enforce payments and collection of bills; and wasteful and inefficient use of energy and water services. To combat many of these problems, reforms have been implemented or are being considered to increase tariffs and reduce cross-subsidies; charge tariffs based on actual consumption; improve metering and bill collection; minimize the social impact of increased tariffs; and de-politicize the tariff-setting process.

Although these reforms have been underway and significant progress has been made, further reform is still needed. In many cases, the tariff increases still fall short of cost-recovery levels and when setting the tariffs, inflation and future operating and maintenance costs have not been sufficiently factored into the equation. Another important issue relates to the social impact and political consequences of tariff increases. Governments in many ENI countries have sought to minimize the impact of increased tariffs through subsidy programs such as housing allowances (HAs). While these programs may be necessary, given the economic situation in many of these countries, their existence raises a key concern—since many of these governments are trying to disassociate themselves from the past Soviet economic system, which was characterized by heavy subsidies, what does the existence of new government-subsidized programs mean for the reform process? This issue needs to be further examined.

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