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**ASSESSMENT OF THE STATUS OF  
COMMERCIALIZATION OF THE GEORGIA POWER  
SECTOR**

**Georgia Power Sector Reform  
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## ASSESSMENT OF THE STATUS OF COMMERCIALIZATION IN THE GEORGIA POWER SECTOR

### **Background**

Since mid-1995, the Georgian electric power sector has undergone a dramatic transformation. With the creation of a high-level committee on power sector restructuring and the issuance of its recommendations in the form of Presidential Decree No. 437, "On Power Sector Restructuring," adopted 4 July, 1996, the Government of Georgia (GoG) initiated an ambitious reform process. By the end of 1998, most elements of this landmark restructuring program have been implemented as planned.

The former non-commercial state-run monopoly power sector has changing to an unbundled, commercialized, corporatized, and independently regulated industry. GoG has established a new legal basis for the power sector with enactment of the Electricity Law of 1997, has created multiple corporatized commercial enterprises, and has prepared plans for privatization. Privatization of the sector has commenced with the sale of Telasi, the distribution enterprise for Tbilisi, to AES Corporation through a competitive tender.

The process of power sector commercialization takes place within this reform context. While still unable to cover their full costs of operation, sector enterprises are now increasing their revenue collections, paying their debts at higher rates, and operating according to contractual agreements as never before. These improvements in company performance are being facilitated by the establishment of a regulatory framework suitable for commercial operation of power companies. Tariff methodologies and market rules are being developed by the Georgian National Electricity Regulatory Commission, wholesale market rules are being negotiated by electric sector stakeholders, and a Chart of Accounts consistent with International Accounting Standards has been prepared for the reporting of financial and accounting information by power enterprises to the Commission.

### **Current Commercial Performance**

The Georgian power system serves some 1.2 million customers. 13 customers take service from the national transmission company (Sakenergo) at transmission voltages; these include nine industrial clients and four large urban distribution utilities (serving Tbilisi, Kutaisi, Rustavi, and Sochumi). Eight other large industrial customers also take service directly from Sakenergo, at lower voltages. All remaining distribution companies are served at 6 and 10kV from Sakenergo substations.

Since 1994 customers have not received 24-hour power supplies, although supplies have generally been better in the summer months than in the winter months due to the increased availability of hydropower in warmer seasons. Tbilisi residents receive far better service than the population in rural areas and other towns. During the summer of 1998, for example, service in Tbilisi was close to 24 hours, with rationing required only occasionally. In contrast, during the past winter service was reduced to an average of six hours per day in the capital. The power that is available is often of variable quality. Georgia's power supply situation is not good, but major improvements in system technical operation (frequency and voltage stabilization) and rationing scheduling have been achieved over the last five years.

### **Collections and Tariffs**

In 1997, approximately 7 billion kWh were supplied to the Georgian power system. Of this, only 4.7 billion kWh were billed to wholesale customers by Sakenergo. For these power deliveries Sakenergo received only 65% of billings, of which only 45% was in cash. For sales to distribution companies the total payments rate was only 50%, of which only 25% was in cash. For the first three months of 1998 an improvement of distribution company wholesale payments rates to 58% was achieved. Although these collections rates are low, they represent a major improvement over the collection rates for prior years, when cash collections sometimes amounted to as little as 15% of delivered amounts.

Residential customers in Georgia have traditionally measured their own electricity usage. No formal bills were issued and customers were expected to instruct their bank to transfer an appropriate amount from their account to that of the utility. Nowadays, distribution companies use "controllers" (bill collectors) to collect funds. These bill collectors make periodic visits to customer premises to check meter readings and collect money on the spot. Distribution enterprises do not, however, systematically manage or implement this collection process, which is ripe for financial abuse.

The Georgian National Electricity Regulatory Commission (GNERC) has established a single rate for all end-users of 6 tetri/kWh (at current rates, approximately 3 cents). In adopting the 6 tetri rate, the Commission noted that it is an interim rate, and that it continues to work on long-term, cost-based rates that will allow sector enterprises fully to recover their costs. Much of the population receives some form of subsidy from GoG that entitles them to reduce payments for electric service.

GNERC estimates that the current cost of serving a residential customer exceeds 8 tetri/kWh and that an industrial user's cost is in the neighborhood of 6 tetri. These discrepancies between the real costs of service and the tariffs actually charged only compound the effects of the non-payment problem. In other words, even if 100% of all kWh were properly billed and paid for under existing tariffs, the sector would still not recover its costs of service.

Due to the ongoing low payments problem, the electric sector's enterprises have accumulated huge payables and receivables. Many customers owe at least six months' worth of electricity

bills to distribution companies. At the end of 1998 Telasi, the distribution company serving Tbilisi, owed Sakenergo more than 120 million Laris.

Even if power sector financial flows were entirely transparent, they are still below what is required to cover operating costs (including winter fuel purchases). As such, Georgian power sector companies themselves have little chance to attract the financing required to rehabilitate the system. It is estimated that \$400 million is needed immediately to rehabilitate idle capacity and existing infrastructure. Additionally, more than \$1 billion is needed over the next ten years to meet demand and halt the further dilapidation of the power sector assets.

### **Commercial Systems**

Another major problem facing the Georgian power sector is that current management, and the power sector work force in general, do not have the required skills to operate the power sector on a commercial basis. The vast majority of Georgia's power sector utility staff have only technical education and training and have little understanding of even the most basic commercial and management concepts and practices. Without this knowledge, it is difficult for current management to put Georgian utilities on a commercial footing, and to direct staff quickly to improve utility financial and technical performance.

Complementing staff inadequacies, companies do not operate with adequate commercially-oriented internal systems. In addition, most customer and wholesale power metering is inaccurate and requires re-calibration. Power sector enterprises lack the required accounting and management information systems to conduct daily activities in an efficient and effective manner. Commercially-focused bookkeeping, record-keeping and Western financial accounting practices, supported by the requisite computerized systems, are virtually unknown in the Georgian power sector. The abacus is the technology of choice for accounting and bookkeeping. The best means for imparting the know-how required to make these changes is by continued implementation of strategic investor privatization.

### **Discussion and Recommendations**

The Georgia electric sector has operated in a state of continuous emergency for several years. A selection of Presidential decrees reflects the pervasive nature of the sector's crisis:

- ▶ Decree No. 407, "On Emergency Measures Aiming to Overcome Critical Financial Situation in Sakenergo," adopted 5 October, 1995
- ▶ Decree No. 136, "On the Progress of Implementation of Decree No. 407," adopted 31 January, 1996
- ▶ Decree No. 363, "On Measures of Overcoming the Extremely Critical Financial Situation of Georgian Power Sector," adopted 30 May, 1996 ("In spite of radical measures undertaken last period the Georgian power sector is still experiencing extremely heavy

financial situation, chiefly caused by non-payment for the power consumed by the customers”)

- ▶ Decree No. 197, “On Improvement Measures for the Collection of Payments for Electricity Consumption in Georgia,” adopted 27 August, 1996 (“The energy system of Georgia is experiencing grave difficulties due to non-payment for electricity consumption”)
- ▶ Decree No. 563, “On Restructuring of the Financial System in the Electricity Sector,” adopted 27 August, 1996
- ▶ Decree No. 829, “On Gradual Adjustment of the Tariff System and on Additional Measures of the Social Protection of the Population,” adopted 19 December, 1996 (noting that then-current rates do not allow electric sector to recover costs, and ordering a rate increase)
- ▶ Decree No. 53, “On Creation of Interdepartmental Emergency Energy Commission at the Ministry of Fuel and Energy,” adopted 25 January, 1997
- ▶ Decree “On Improvement of Consumed Electricity Payment Collection Mechanism,” adopted 6 October, 1997 (noting the failure of distribution companies to pay their bills, and attempting changes)
- ▶ Decree No. 741, “On the Condition of the Georgian Energy Sector and Additional Measures for the Winter Period,” adopted 21 December, 1997 (“Due to the failure of [Telasi] and other municipal distribution companies, as well as some large industrial consumers, to pay their electricity bills, it became impossible to gather funds necessary to purchase fuel”)

These decrees attempted to address a financial crisis. The system has not for some time generated enough cash for sector entities to pay salaries, or perform routine maintenance (far less construct new facilities), retire debt, or meet obligations as they become due. As Decree No. 741 concluded, for the last two years the system has not produced enough cash to allow Sakenergogeneratsia to purchase fuel to run the thermal units during the critical winter months, when hydropower generation is at its lowest level. And the root cause of the financial crisis is that consumers do not pay their bills, “consumers” referring to end-users, to distribution companies, and to Sakenergo itself. Significant numbers of residential and commercial customers fail to pay their bills.<sup>1</sup> For those who do, the resulting cash tends to disappear somewhere in the distribution enterprise, so that Sakenergo gets paid (if at all) only a fraction of what is due. Sakenergo, in turn, pays generators little of what is owed to them.

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<sup>1</sup> A common rationale offered by residential consumers is that they will not pay for power so long as it is delivered only sporadically and unpredictably, which is the case in most of the country during the winter.

Simply put, the reason for these failures is the inability of management in the electric sector to put their enterprises on a commercial basis. In the beginning, this failure could be attributed to ignorance; sector management simply lacked the tools provided by knowledge and training that would enable them to design and implement effective commercial programs. But that excuse no longer applies. For example, USAID funded a pilot commercialization project at Relasi, the distribution enterprise at the town of Rustavi, which is located near Tbilisi. The program was remarkably effective in putting the electric consumers in the pilot on a commercial footing; the pilot's cash collection rates for billed electric energy consistently hovered around the 95% mark during 1998.

Throughout the last half of 1998, Hagler Bailly sponsored tours of the Relasi pilot for anyone who would invest a few hours to visit. We invited GoG officials, Sakenergo managers, and, most particularly, the managers of distribution systems. Few came. Fewer understood the nature of the pilot. Even the managers of Rustavi, who had the pilot right in front of them (along with as much assistance from project personnel as they wanted), have been unable to replicate the commercial pilot.

Whatever the reason for sector management's inability to implement commercial procedures, the fact is that the system seems unable to change, even when shown the way. This factor strongly supports the wisdom of donor agency recommendations, now implemented by GoG, that the sector be privatized. Only with the capital and know-how that will accompany privatization will the sector escape the current morass of financial trouble.

In that context, the question is how USAID should invest its resources in the commercialization area to maximize benefits to the electric sector as a whole. The most important variable is that privatization looms for the remainder of the distribution enterprises. It is certain that all remaining distribution assets will be offered for sale during 1999, and likely that most, if not all, of them will actually be sold. It would not be useful, therefore, to invest additional resources in commercialization pilots or other training, education, or study tours designed to show distribution or other sector managers how to put their enterprises on a paying basis; their assets will be under new management soon, and in the meantime, the Rustavi experience is there for any who care to learn. We therefore recommend that USAID devote resources to the following tasks in the commercialization context.

**1. Disseminating Relasi.** We propose to prepare and circulate, to all managers of distribution enterprises of significant size, a business plan based on the Rustavi commercialization pilot. Distribution of the plan will be accompanied by an offer of assistance to any manager proposing to adopt the plan in order to increase collections rates. Thus, any distribution manager wanting to commercialize, even with privatization looming, may do so.

**2. Exporting the revolution.** In perhaps the highest compliment that a multinational business organization can pay to a USAID-sponsored project, AES Corporation, the purchaser of Telasi, adopted the Rustavi pilot by hiring all of the pilot's critical personnel, and expressing its intent to commercialize billings and collections in Tbilisi by duplicating the Relasi pilot. Hagler Bailly

proposes to assist AES in this effort by offering cross-training for data entry clerks, bookkeepers, meter readers, construction supervisors, schedulers, and other key personnel that AES will need to adopt the program for Telasi. Hagler Bailly would offer similar services to any other new purchasers of distribution assets during the first half of 1999.

3. **Accounting reform.** During the summer of 1998, under subcontract with Hagler Bailly, Carana Corporation prepared a Chart of Accounts and accompanying Accounting Manual for use by GNERC and the electric sector's licensees. The Chart of Accounts is compatible with International Accounting Standards, and helps to fulfill the mandate of the Electricity Law that GNERC prescribe an accounting system for the sector consistent with IAS. Carana was able to do some training for the Chart of Accounts for GNERC and selected sector personnel, but a far more intensive training program should be undertaken in order fully to implement the accounting system in the sector. We propose to design such a program, in cooperation with Sibley International, USAID's accounting reform contractor in Georgia.

4. **Other pilot opportunities.** Hagler Bailly also proposes to investigate, and if appropriate to implement, other energy-sector commercialization pilots or educational or training programs that would provide the opportunity to improve energy efficiency or consumption on an economically sustainable basis. Among these are energy efficiency programs, further development of the least-cost planning model pioneered by Burns & Roe under a USAID program, and the development of currently idle geothermal resources in and around Tbilisi.