



<b>1. Project Data:</b>		<b>Date Posted :</b> 08/19/2002	
<b>PROJ ID:</b> P008555		<b>Appraisal</b>	<b>Actual</b>
<b>Project Name:</b> Energy	<b>Project Costs (US\$M)</b>	17.50	12.63
<b>Country:</b> Moldova	<b>Loan/Credit (US\$M)</b>	10.0	9.08
<b>Sector(s):</b> Board: EMT - Power (50%), Oil and gas (50%)	<b>Cofinancing (US\$M)</b>	0.0	0.0
<b>L/C Number:</b> L4020			
	<b>Board Approval (FY)</b>		96
<b>Partners involved :</b>	<b>Closing Date</b>	06/30/2000	12/31/2001
<b>Prepared by :</b>	<b>Reviewed by :</b>	<b>Group Manager :</b>	<b>Group:</b>
Alvaro J. Covarrubias	Fernando Manibog	Alain A. Barbu	OEDST
<b>2. Project Objectives and Components</b>			
<b>a. Objectives</b>			
<p>The objectives of the project were to: (i) strengthen the financial management and accounting systems that are needed in order to place gas and electricity sales on a commercial basis, and establish Moldovagas and Moldenergo as financially viable energy enterprises; and (ii) improve the measurement of consumed energy and the efficiency of electricity production in order to reduce losses and waste of costly imported fuels.</p> <p>Revised Objective:</p> <p>As originally stated, the development objective (i) was ambiguous. Strengthening the financial management and accounting systems alone – while essential – would not be enough to establish financially viable energy enterprises. After two years in which the achievement of the development objective was rated unsatisfactory due to the ambiguity of the development objective and to Government's inability to meet all the targets in the Financial Action Plan, the Loan Agreement was amended in June 1999 to restate the development objective as follows:</p> <p>The project would: (i) strengthen the accounting systems of Moldovagas and Chisinau CHP2 in order to improve the billing of customers, tracking of payments and operating costs, and facilitate financial decision making; and (ii) improve the measurement of consumed energy and the efficiency of electricity production in order to reduce losses and waste of costly imported fuels. The monitoring indicators of the Financial Action Plan were revised accordingly.</p>			
<b>b. Components</b>			
<p>The project was designed around five components:</p> <ul style="list-style-type: none"> <li>-Component 1: Overhaul of the Chisinau No. 2 Combined Heat-and-Power Plant (CHP2).</li> <li>-Component 2: Repair of approximately 180 Leaky Gas Distribution Points.</li> <li>-Component 3: Installation of Gas Meters.</li> <li>-Component 4: Upgrade of Accounting and Billing Systems and Financial Management.</li> <li>-Component 5: Project Management and Implementation Assistance:</li> </ul> <p>The components were not revised.</p>			
<b>c. Comments on Project Cost, Financing and Dates</b>			
<p>The project was completed with a delay of 18 months at an estimated cost of US\$12.63 million or 28 percent below the US\$17.50 million appraisal estimate. The decrease in cost, expressed in US dollars, was mainly caused by a combination of a considerably lower than estimated price of gas meters and</p>			

lower local costs resulting from the devaluation of the Moldovan Leu currency. The Bank loan financed part of the gas meters (US\$6.42 million), repair of gas leaks in the distribution system (US\$0.54 million), overhaul of the Chisinau CHP2 plant, consulting services (US\$0.2 million) and miscellaneous costs (US\$0.11 million), totaling US\$9.08 million. The balance was financed locally by Moldovagas, Chisinau-gas, Chisinau CHP2 plant and customers of Moldovagas (US\$3.37 million equivalent), and a Dutch Consultant Trust Fund (US\$0.18 million equivalent). The Bank loan was closed on December 31, 2001 following an extension of the loan closing date by 18 months at which time US\$0.92 million was canceled.

### **3. Achievement of Relevant Objectives:**

The original and revised project objectives were substantially achieved. Originally, the development objective had hinged around a Financial Action Plan. This action plan led to enactment of legislation for the energy sector, establishment of an independent regulator, and increase in tariffs for gas and electricity. Although collection of electricity bills deteriorated early in project implementation, it improved dramatically at the end of the project when 3 of the 5 electricity distribution companies were privatized following the privatization dialogue under SAL II and SAC III. The installation of gas meters combined with the creation of a special unit for gas meter readers and the revision of the billing norms applicable to customers without meters improved gas billing and collection significantly. Currently, 100 percent of industrial consumers, 92 percent of residential customers, and 99 percent of social consumers are being billed and paying almost 100 percent of its gas consumption. On the contrary, non-payers are large energy sector consumers such as CHP1, CHP2 and Termocom (the district heating company of Chisinau) which are paying only about 58 percent of their gas consumption. In aggregate, in 2001 Moldovagas was collecting about 72 percent of the gas billing, up from 62 percent in 1997. The latter was 15 percent in cash and the remaining in barter. Also, Moldovan and Chisinau CHP2 adopted the National Accounting Standards, trained their staff, and are applying those standards to their financial statements since 1998.

### **4. Significant Outcomes/Impacts:**

The reliability of natural gas distribution improved, the gas leaks were substantially reduced in the distribution network, and the procurement and subsequent installation of more than 235,000 gas meters has had a remarkable positive impact on gas billing and collection. The International Accounting System was adopted by Modovagas and Chisinau CHP2. A new, market oriented legal framework for the power sector established an independent regulatory agency (ANRE) and enabled the restructuring and corporatization of the state-owned vertically integrated electricity monopoly. Moldenergo was unbundled into 5 distribution companies, 4 generation companies, and Moldelectrica (a transmission and distribution company). Moldelectrica remained a state-owned enterprise, but the rest were converted into joint stock corporations. Three of the five electricity distribution companies covering 70 percent of the market were sold in February 2000 to Union Fenosa (Spain) through international competitive bidding.

### **5. Significant Shortcomings (including non-compliance with safeguard policies):**

Although in 1997 the electricity tariffs were increased, they were equalized for all consumers to about 5.1 UScent/kWh, a level maintained since then. This is an obvious distortion of the tariff structure.

<b>6. Ratings:</b>	<b>ICR</b>	<b>OED Review</b>	<b>Reason for Disagreement /Comments</b>
<b>Outcome:</b>	Satisfactory	Satisfactory	
<b>Institutional Dev .:</b>	Modest	Modest	
<b>Sustainability:</b>	Likely	Likely	
<b>Bank Performance:</b>	Satisfactory	Satisfactory	
<b>Borrower Perf .:</b>	Satisfactory	Satisfactory	
<b>Quality of ICR:</b>		Satisfactory	

**NOTE:** ICR rating values flagged with '\*' don't comply with OP/BP 13.55, but are listed for completeness.

**7. Lessons of Broad Applicability:**

A small investment project is not the appropriate vehicle to implement major energy sector reforms, but needs to be supported by adjustment operations (as in this case with SAL II and CAS III) with significant energy sector reform components.

It would be extremely useful to develop some sort of grant facility that could be used for technical assistance to assist low-income borrowers in day-to-day project implementation, development of technical specifications, and procurement. This project was affected by the extreme reluctance of the Moldovan government to borrow from the Bank for technical assistance, an attitude common to many borrowing countries in the Former Soviet Union. The project's technical assistance component was scaled down or funded through grants from other donors.

The country financial management assessment should help the Government or Borrower find a suitable (grant) financing source to help the Government adopt and implement International Accounting Standards (IAS). Given the numerous changes to IAS since the 1998 adoption of IAS-based national accounting standards (with IDF grant and USAID financing), the dialogue should be maintained on this issue so that the considerable work already done can be sustained.

**8. Assessment Recommended?**  Yes  No

**Why?** This is the first energy sector lending operation in Moldova, for which adjustment operations provided significant support to energy reforms, and where privatization of distribution led to positive sector-level outcomes.

**9. Comments on Quality of ICR:**

The ICR complies satisfactorily with the Bank guidelines for the preparation of ICRs. It presents a good description and evaluation of the project results. The reader would have benefited with a more concise text.