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Hungary – Final Report for 1998

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United States Agency for International Development
Regulatory Reform and Energy Sector Restructuring in
Central and Eastern Europe and the Baltics

Hungary

FINAL REPORT

Bechtel Consulting
8 April 1998

TASK DESCRIPTION

The purpose of the Regulatory Reform Assistance to the Hungarian Energy Office program is to advise the new Hungarian Energy Office (HEO) in the development of regulatory methodologies and processes and in establishing an organizational structure to carry out the responsibilities of this authority as provided in the Electric Energy Law established in 1994 (Act XLVIII of 1994, hereafter called the "Law")

Technical assistance has been provided to the HEO to assist in the establishment of a viable regulatory body to license and regulate the production, transmission and distribution of electric energy and to assure that customer demands are efficiently met at minimum cost. The Bechtel team has also procured, shipped and installed basic computer hardware and software at the HEO, and provided information management support in conjunction with the procurement

OVERVIEW

Prior to the 1940's the Hungarian economy was primarily agricultural. Under Communism, after the end of World War II, the introduction of central planning placed emphasis on heavy industry with little regard to energy efficiency. Most particularly, the growth of heavy industry was based upon the use of inefficient and environmentally damaging domestic lignite. In the immediately post-Communist period of the early 1990's, the Hungarian Government moved to restructure its economy with goals of economic and environmental sustainability. Environmental protection and the minimization of pollution were seen as long-overdue priorities and integral to Hungary's forward-looking program of socio-economic restructuring.

Historically, Hungary has been energy inefficient as a result of policies that fostered artificially low prices for energy. The price structure, driven largely by social considerations, incorporated excessive cross-subsidization – e.g. higher industrial prices subsidized household consumption – that distorted costs and gave misleading signals to consumers and, in effect, encouraged the waste of energy. By the early 1990's, the indirect cost of energy subsidization was roughly equal to ten per cent of the Hungarian GDP.

In April 1994, the Hungarian Parliament passed an electricity act¹. This and other acts enabled the HEO to operate as a supervisory and regulatory body under the Ministry of Industry, Trade and Tourism (MOITT). The HEO was given full responsibility for all licenses for existing and new generation, transmission and distribution. HEO prepares rules governing analysis for and recommendations of prices and promotes the principles of least cost production and distribution, with prices that reflect the actual cost of service including return of and return on invested capital.

With HEO's legislative mandate came a need the development of in-house expertise and capabilities to implement its critical supervisory and regulatory functions. Since September 1995, USAID (through Bechtel Consulting and its sub-contractors, Arthur Andersen, Kema-ECC, NERA and Pierce Atwood) has been assisting the HEO in developing those capabilities. Tasks in which USAID has provided assistance are

- 1) Support the development of an Operational Code to facilitate integration of the Hungarian system into the CENTREL and UCPTE grids
- 2) Advise HEO on the development of processes for new capacity tendering and power plant licensing
- 3) Provide legal advice and support to the HEO
- 4) Conduct a Tariff Workshop
- 5) Advise HEO on the development of a management information system, and provide selected hardware and software

¹ Act XLVIII of 1994 on the Production, Transportation and Supply of Electric Energy

- 6) Advise HEO on Creation of a public hearing process under its mandate to conduct a variety of consumer protection activities
- 7) Acquaint HEO with regulatory methods and procedures in the USA
- 8) Assist HEO with its responsibilities in developing the guidelines to establish the technical standards of electricity supply to ensure the customer is properly served
- 9) Enhance HEO's ability to review and approve demand and capacity forecasts
- 10) Acquaint HEO with methodologies and procedures of power sector operation, management and regulation as practices throughout the world
- 11) Assist HEO with its program of institutional development to ensure sustainability of its operations And,
- 12) Advise HEO on issues of Competition and Restructuring such that its management could exercise its influence upon the EU harmonization effort and use that work as a vehicle for Hungary's adoption of market-oriented reforms

Although our work was not specifically focused upon environmental issues, this effort supports the development of a sustainable, market-based energy sector wherein environmental concerns can meaningfully be addressed. Decades of under-investment and environmental neglect left the sector in great need of modernization and upgrading to meet economically and environmentally sustainable standards of efficiency. These needs cannot effectively be met by the Hungarian economy without an infusion of capital and the market-based managerial expertise that comes from strategic, equity investment by the private sector. In turn, these needed equity investments will not be forthcoming in the absence of a cost-reflective pricing structure that allows for an adequate return of and return on equity.

Prior to the adoption of an Electricity Act – and, therefore, the establishment of the HEO – the Hungarian government was unsuccessful in its attempt at selling some of its electricity assets in 1993. After the establishment of the HEO, another attempt at privatization was considerably more successful. This round of privatization, which occurred during the fall of 1995, resulted in the sale of 18.8 percent of MOL – Hungary's integrated oil and natural gas company – to international investors for US\$153-million, additionally, five regional gas distribution companies were sold for US\$461-million. In the electricity sector, US\$1.3-billion was generated by the sale of minority interests in six electricity distribution companies and two power plants. Subsequent rounds of privatization have transferred even more of the electricity into private ownership. This success reflected not only an increasing market interest in the Hungarian energy sector, but an interest that is encouraged by the reassuring presence of the HEO and the stabilizing influence of its regulatory functions.

Competition in market entry for the supply of new generating capacity can be accomplished in one of three ways under the current legal framework. The first approach is through competitive bidding for the supply of new or refurbished capacity through the Establishment Plan process required by the Electricity Act. One of the ways by which USAID has assisted this process was in assisting HEO with the development of a competitive bidding process for the supply of new power generation capacity. An

important product of this assistance was that in October 1997 the first round of a tender by MVM, using HEO's guidelines, produced 89 bids from 30 bidders for 2000 MW of new capacity

Building upon the foundation of this success, the next steps quite clearly include proactive measures of environmental protection. Hungary is eager to join the European Community and the HEO, among other agencies and commissions of the Hungarian Government, are carefully studying the means by which Hungarian business and environmental practices must be harmonized with those employed by their neighbors in the west. In that proactive analysis, we are assured that environmental protection is an essential part of the broad political and socio-economic changes that have brought Hungary to the forefront of restructuring in Central Europe.

The HEO has been active in helping the Government of Hungary understand what it must do to meet EU requirements and understanding its options for change in the future. The HEO, despite the lack of legal and formal autonomy, has proactively taken an aggressive position in advancing the public interest and influencing the government. Currently, for example, the content of long-term purchase and sale contracts among generators, distributors and the MVM are being reviewed. The HEO has properly shown great concern about locking into long-term deals, without any escape. Our USAID-funded work has advised the HEO on approaches to risk of change in Purchase Power Agreements and are concluding our work this month by providing further advice regarding the long-term contracts being entered-into at this time.

Perhaps the Government of Hungary's greatest success has been in establishing a fair, independent and knowledgeable licensing department in the HEO. Since its inception, HEO has issued many licenses of high sophistication and all pursuant to the letter of the law. USAID has worked closely with the HEO in this area, giving detailed advice, other countries could learn a great deal by examining the content of issued licenses. Some of this work was linked with existing and new capacity issues, in that licensing is a necessary component to entry for a new investor. For example, we worked with the HEO on facilitating the successful resolution of many complex and legal issues surrounding the Tenneco/El Paso investment.

Lastly, an area in which HEO is probably more advanced than any other Central or Eastern European nation, is what can be called "process". HEO is higher on the learning curve as to how a good regulator should go about its business. It has made this progress largely because of the creativity, intelligence and determination of its leaders. Throughout its experiences in having to implement the law and regulation, the HEO has learned important lessons from which other countries. The Hungarian energy sector is moving ahead and assuming its responsibilities for supporting the prospering of a market-based economy. Private ownership is encouraged by law and institutional action in ways that will not be reversed. Energy efficiency and environmental sustainability are recognized as achievable targets and priorities for energy sector participants.

Bechtel Consulting and the members of our project team are proud to have been a part of this transition period and we have considerable optimism about the future of the Hungarian energy sector. Its achievements have set standards for economic restructuring and we are confident of its potential to set standards in environmental protection as well.

ACCOMPLISHMENTS

1) OPERATIONAL CODE

Objective

Support HEO in its efforts to review and comment on operational regulations and codes as they are being developed in order to facilitate integration of the Hungarian system into the CENTREL and UCPTE grids

Accomplishments

- Establishment of committee to draft codes (Oct 95)
- Preparation of initial draft codes & their adoption (2nd half 95)
- Preparation of first code revision & its adoption (June 96)
- Preparation of second code revision (Advice on this revision was provided through the conclusion of project activities on 18 February 1998)

2) ADVICE ON PROCESS FOR NEW CAPACITY TENDERING/POWER PLANT LICENSING

Objective Support the development of guidelines and procedures for new capacity tendering and for granting and approving licenses for new power generating facilities

Accomplishments

- MVM, using HEO's tender guidelines, solicited bids for 2000 MW of new capacity (Oct 97)
- HEO adoption of tender guidelines (June 96)
- Operational Code amendments to support tender process (June 96)
- Establishment plan adoption of tender process (Nov 96)
- HEO adoption of model guidelines for new capacity, self-use and direct sales
- HEO adoption of process for implementing licensee ownership transfer
- HEO adoption of guidelines to limit monopoly ownership

Licenses for Generation Capacity

Establishment Licenses

Bakony Eromu	10/6/95	150MW
Borsod Energetikai	10/6/95	150MW
Budapest E	10/6/95	104MW
Titasz	10/6/95	80MW

Preliminary Establishment Licenses

In-ER Eromu	11/14/95	80MW
MVM	11/14/95	100MW
MVM	11/14/95	100MW
Algynvest	12/15/95	187MW
Csepell	12/12/96	389MW
MVM	12/27/96	160MW
Matrai Eronu	8/13/97	600MW

Commissioning Licenses

Budapesti E	11/30/95	137MW
Dunamenti	11/30/95	156MW

Operational License

EMA-Power	5/2/97	69MW
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Self Use License

Dunaferr	3/25/96	69MW
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3) PROVIDE LEGAL ADVICE AND SUPPORT TO HEO

Throughout the project, legal advisory services, integral to Tasks 2 and 12 along with other aspects of the project, were provided to HEO by Pierce Atwood. In addition, the Dr. Erika Nemeth, a Hungarian attorney, worked on-site with HEO on a regular basis, under terms of a sub-contract with Pierce Atwood.

4) TARIFF WORKSHOP

Objective

Provide information to HEO management and senior staff on tariff methodologies and strategies.

Accomplishments

Bechtel Consulting conducted a workshop/meeting at the HEO in November 1995. This informal workshop provided advice to the HEO on tariff methodologies and strategies, and was attended by about 4-5 senior level managers from different departments within the HEO. Additional face to face workshops, documentation and advice have followed this meeting, at the request of Mr. Bekes, the HEO Tariff Manager. Because of changes in the government and decisions made outside of the HEO, further assistance on this task was not required.

5) INFORMATION MANAGEMENT ADVICE

Objective

Assist HEO in performing its new regulatory function by providing needed hardware and software as well as advice on the development of a management information system

Accomplishments

- Purchased and installed infrastructure for office automation (late 1996)
- Provided basic training to network administrators - i e HEO's energy information department (1997)
- Established strategy for improving management information as it applies to HEO regulatory functions (April 1997)
- Conducted an eight-day information management workshop in Budapest
- Completed the analysis of HEO licensing work flows and information requirements (July 1997)
- Installed and configured the California Energy Commission's Compliance Tracking System software (July 1997)
- Implemented high priority software acquisition program to provide a database management system

6) PUBLIC HEARING PROCESS

Objective

Draft a decree on the public hearing process that could be proposed by HEO to the Hungarian Government

Accomplishments

A Bechtel Consulting public participation specialist reviewed existing Hungarian energy legislation, and new energy related decrees, along with other relevant documents pertaining to the Hungarian Energy Office, and drafted a proposed public hearing decree. This draft was reviewed by HEO and others in the Government, and the draft was considered in the review of other public hearing proposals, including those required by environmental regulation. This task was completed in 1996.

7) MEETINGS WITH US REGULATORY AGENCIES

Objective

Acquaint HEO with regulatory methods and procedures in the USA such that they may adapt applicable features thereof to their work within Hungary

Accomplishments

- Meeting with FERC (April 1996)

- Meeting with California Energy Committee (early 1997)
- Meeting with California Siting Committee (early 1997)
- Meeting with Maine Public Utilities Commission (April 1996)
- Meeting with Massachusetts Department of Energy (January 1998)
- Meeting with Oregon Public Utilities Commission (early 1997)

9) DEMAND AND CAPACITY FORECAST REQUIREMENTS

Objective

To enhance HEO's ability to review and approve demand and capacity forecasts that will be developed by supply companies

Accomplishments

- Conducted workshop (Summer 1996) educating supply companies on forecasting techniques
- Conducted a pilot study with Demasz, estimated statistically valid relationships to project future demand using a hybrid technique relying on historical data on consumption
- Study tour to Massachusetts (January 1998) to visit the New England Electric Pool, also various officers of the Massachusetts Department of Energy

10) INTERNATIONAL WORKSHOPS AND CONFERENCES

Objectives

Acquaint HEO with methodologies and procedures of power sector operation, management and regulation as practiced throughout the world such that they may adapt applicable features thereof to their work within the Hungary power sector

Accomplishments

- International Bar Association, Claremont, California (May 96)
- Euro Energy 96, London (Nov 96)
- UNIPEDE-Congress, Montreal, Switzerland (May 97)

11) INSTITUTIONAL DEVELOPMENT

Objectives

To enhance the regulatory competence of the HEO by adding qualified personnel commensurate with HEO's increasing responsibilities and work load

Accomplishments

In the course of the USAID assistance, the HEO added competent legal staff in 1997 and 1998, including those who were trained by and who worked with US attorneys under the program. Conversations were held with senior HEO staff regarding further staff recruitment efforts, and it is felt that the comparatively low salaries of Government civil service employees most hampers this effort. In that regard, many conversations during the assistance program with Ministry and Parliament emphasized the need for increased and independent HEO funding.

12) COMPETITIVE MODEL & RESTRUCTURING STUDY

Objective

Assist HEO in exercising its influence upon the EU harmonization effort such that this work can become a broader vehicle for Hungary's adoption of market-oriented reforms and full integration into the Central and European power grids.

Accomplishments

- Study papers on (a) ownership issues, (b) trading arrangements, (c) regulatory issues, (d) financial issues, (e) transitional issues and (f) operational issues were prepared and submitted to the HEO (July 1997) and have been incorporated by reference and in part within HEO papers and presentations.

RECOMMENDATIONS

The HEO is without a doubt the most competent and respected energy regulatory body in Central and Eastern Europe. However, it is still not independent, and is subject to both political and bureaucratic pressures from the Ministry to whom it reports. Its funding is not reliable, as it must depend on year to year budget approval by the Ministry. And there is a growing need to recruit and train young, new staff who can be groomed to rise through its ranks to leadership positions when the current leaders retire or move on.

Therefore, we would like to conclude this program of assistance with the following recommendations:

- The HEO should be granted the independence envisioned in its enabling legislation. Its decisions, including electricity tariffs, should be given the force of Government regulation, reviewed by the courts and Parliament rather than by a government Ministry. Its President should serve for a set term, and be removed only for specified causes.
- Funding: the HEO should be provided by a reliable source independent of the national budget, such as a small added fee to energy rates or fees paid annually by licensed energy enterprises. The increased and reliable funding should be dedicated to operations of the HEO and to a concerted recruitment effort, which will need to be coupled with the authority to pay its staff salaries above the civil service rates.

HEO's achievements, reflecting its capabilities to analyze issues and regulate judiciously and effectively, are generally acknowledged and HEO has established a commendable international reputation as a responsible arbiter of the public interest. With the implementation of these recommendations HEO will become an even stronger example to the rest of the economies in transition that sustainable growth in the energy sector is ensured by the pro-active involvement of a competent, independent and professional energy regulator.

Computer Equipment Purchased for the Hungarian Energy Office

ITEM	QTY	UNIT	COMPLETE DESCRIPTION	UNIT PRICE	EXTENSION	Location	Status (stolen, broken, working, etc)
1	1	LOT	SERVER COMPAQ ProSignia 500 5/120 Model 4200S COMPAQ 32 MB RAM Upgrade COMPAQ 140 Color Monitor COMPAQ 5 GB DAT Drive SCSI 2 APC SmartUPS 3G 700 VA	\$13,139 00	\$13,139 00	HEO (Hungary)	Working
2	4	EA	WORKSTATIONS COMPAQ ProLinea Standard Desktop 5120 Model 1200 (16 MB) 1 MB VRAM Module COMPAQ Quadspeed IDE CD ROM Drive COMPAQ NetFlex ENET/ISA Controller COMPAQ Qvision 172 Color Monitor	\$4,192 00	\$16,768 00	HEO (Hungary)	Working
3	1	LOT	GRAPHICS WORKSTATIONS COMPAQ ProLinea Minitower 5150 Model 2100 (16MB, Millenium) COMPAQ 16 MB RAM Upgrade COMPAQ Quadspeed IDE CD ROM Drive COMPAQ NetFlex ENET ISA Controller COMPAQ Qvision 172 Color Monitor	\$5,937 00	\$5,937 00	HEO (Hungary)	Working
4	1 1 3 1	EA	PRINTERS HP Laser Jet 4MV Printer Epson Stylus Color II Printer HP LaserJet 5L HP Scanjet 4c Scanner	4 064 00 729 00 2,019 00 1 254 00	\$8,066 00	HEO (Hungary)	Working
5	1 1	EA	NETWORK SOFTWARE MS Windows NT Server v3 51 (SNAK) Cheyenne Arc Serve for Windows NT (SNAK)	944 00 701 00	\$1,645 00	HEO (Hungary)	Working

ITEM	QTY	UNIT	COMPLETE DESCRIPTION	UNIT PRICE	EXTENSION	Location	Status (stolen, broken, working, etc)
6		EA	INTERNET CONNECTION		\$1,554 00	HEO (Hungary)	Working
	1		FTP Explore Internet Software	79 00			
	1		US Robotics Courier V34 33600 bps Faxmodem	850 00			
	1		Internet Funding for 1 year (dial up connection 1 user)	625 00			
7		EA	SOFTWARE		\$8,410 00	HEO (Hungary)	Working
	5		MS Office Standard for Windows 95 HUN	2 935 00			
	1		MS FoxPro 2.5 for Windows HUN	379 00			
	1		AutoCAD 13 DOS+WIN HUN	2 453 00			
	1		Recognita Plus 2.0a	688 00			
	5		Norton Commander 5.0	390 00			
	2		Corel FLOW 3.0 for Windows 95	356 00			
1	Corel Draw 6.0 for Windows 95 + Corel Ventura 5.0						
8		EA	MISCELLANEOUS		\$2,534 00	HEO (Hungary)	Working
	1		UTP Cabling (1 server + 5 workstations + 4 exiting workstation + 1 network printer)	2,100 00			
	1		SMC TigerHUB 12 TP port+1 BNC+1 AUI	434 00			
9		EA	ELEMENTS FOR EXISTING COMPUTERS		\$1,072 00	HEO (Hungary)	Working
	4		Windows 95 upgrade HUN	560 00			
	4		SMC EtherEZ Network card TP	300 00			
	2	Sony 4x speed CD ROM Drive	212 00				