



1. Project Data:		Date Posted : 08/20/2001	
PROJ ID: P008316		Appraisal	Actual
Project Name: Energy	Project Costs (US\$M)	126.0	93.4
Country: Bulgaria	Loan/Credit (US\$M)	93.0	78.3
Sector(s): Board: EMT - Power (100%)	Cofinancing (US\$M)	0	0
L/C Number: L3563			
	Board Approval (FY)		93
Partners involved :	Closing Date	12/30/1997	12/31/2000
Prepared by :	Reviewed by :	Group Manager :	Group:
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2. Project Objectives and Components			
a. Objectives			
The project was to: (i) improve efficiency and reliability of the power system; (ii) improve voltage control and frequency regulation; (iii) rationalize electricity tariffs to reduce imports and pollution, and to mobilize resources for NEK (the national electricity company); (iv) depoliticize the tariff setting by establishing an independent regulatory mechanism; (v) meet peak demand without importing electricity or using high cost sources; (vi) commercialize NEK's operations; and (vii) strengthen dam safety at Belmeken and Chaira dams .			
b. Components			
The objectives were to be met by: (i) installing: modern communications system for real-time operation of the power system; state-of-the-art hardware and software at the National Dispatch Center; automatic generation control systems; and fault recorders on the 400 kV transmission network; (ii) completing units 3 and 4 of the Chaira pumped storage hydropower plant and strengthening its dam; (iii) technical assistance to help the Natsionalna Elektricheska Kompania (NEK) implement the physical components and operate in a commercial manner by including the design and implementation of financial management systems (such as cost accounting, financial accounting, billing and collection, cash and budget management) and supporting a computerized MIS.			
c. Comments on Project Cost, Financing and Dates			
The project was completed at a cost of US\$93.4 million or 25.9 percent below the US\$126.0 million appraisal estimate - even though the scope of the project was expanded . The Bank loan financed part of the supervisory control and transmission system (US\$43.3 million), Chaira units 3 and 4 pumped storage plant (US\$22.3 million), technical assistance to NEK (US\$2.2 million) and all interest during construction (US\$10.5 million) totalling US\$78.3 million. The balance was financed by the GOB and NEK . The cost saving was the result of successful competitive bidding and devaluation of the local currency . The project was completed with a delay of 3 years caused by initial inactivity at NEK and periods of political instability . Consequently, the loan closing date had to be extended by 3 years to 12/31/2000 and savings amounting to US\$14.7 million was canceled.			
3. Achievement of Relevant Objectives:			
<ul style="list-style-type: none"> The physical objectives were achieved : power system performance improved significantly (the number forced HV outages decreased from 3556 in 1992 to 381 in 2000), reliability improved to the point where Bulgaria can become a member of the European UCTE, power reserve was increased by about 5 percent and there is no need to import power to meet peak demand, and since 1996 Bulgaria is exporting electricity . The safety of the Belmeken and Chaira dams was improved and the Chaira units 3 and 4 completed. Achievement of non-physical objectives exceeded the original project objectives . Operations and management of NEK have improved . NEK was restructured and the new organization separated the governance and management functions . The financial, accounting and commercial policies now comply with modern standards for the power sector . The Committee on Energy (COE) adopted a satisfactory methodology for calculating electricity tariffs . The sector was restructured. 			
4. Significant Outcomes/Impacts:			
<ul style="list-style-type: none"> In 1999, a new Energy Law was adopted by the GOB and the State Energy Regulatory Commission established. The COE was split into two agencies: the State Agency for Energy and Energy Resources (in charge of policy 			

making) and the State Energy Efficiency Agency (in charge of promoting energy conservation and environmentally clean technologies).

- The new electricity tariff policy adopted in May 2000, which is based on sound economic principles, and the GOB's willingness to take politically difficult actions to enforce it has induced growing interest of the private sector in participating in the Bulgarian power business.
- The re-calculated ERR of the overall project (22 percent) is better than the appraisal estimate (19 percent). The Chaira pumped storage component has a 30 percent ERR, and the transmission component has a 13 percent ERR.
- NEK was not only commercialized but unbundled into 7 distribution companies and several power companies. A new Energy Law was enacted, and the policy and regulatory functions were separated and assigned to independent agencies. Private capital began to be interested in the Bulgarian power sector.

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

- Initially, successive governments resisted policy changes entailing tariff increases and made frequent changes to senior staffing. This, allied with slow procurement, delayed project implementation and caused a three-year delay in completion.
- NEK's lack of capacity to deal with external financiers should have been addressed up-front through specific TA - an oversight during the appraisal process.

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

- Keeping the focus on long term development pays off. Policy reforms, such as the tariff policy, require that the macroeconomic situation in a country be under control, which was not the case of Bulgaria during periods of hyperinflation and economic crisis. However, by encouraging the Government to comply with the financial covenants of the loan in order to obtain future benefits, it was possible to make a reform on this front. The Bank partnered with the IMF in that encouragement and by establishing a currency board the Bank and the IMF demonstrated to the Government that this reform was necessary and doable.
- The Bank should remain flexible to adapt to emerging trends or opportunities. In this project the Bank did not hesitate to support an expansion to the scope of the project including further improvement of the 200 kV network and the redesign of the MIS. Also, the Bank encouragement of GOB's intention for advancing sector restructuring showed how emerging trends can be utilized for larger gains for the country, such as Bulgarian's ambition to join the European Community.

8. Assessment Recommended? ☒ Yes ☐ No

Why? Reasons: (i) This is the first energy project financed in Bulgaria; (ii) The project successfully restructured and commercialized the power sector of a former communist country.

9. Comments on Quality of ICR:

Very satisfactory. The ICR contains a very clear and concise description and evaluation of the project achievements and implementation experience.