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Eastern Europe And The Baltics**

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Bechtel Consulting



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1.0 Overview

Awarded in March 1995, the aim of the USAID sponsored Regulatory Reform and Energy Sector Restructuring in Central and Eastern Europe and the Baltics Project is to provide technical and advisory services, training and research in the areas of a) regulatory reform, b) energy sector restructuring, and c) independent power and policy development. The project is being carried out by Bechtel International, Inc., together with its team of subcontractors, Arthur Andersen, LLP, National Economic Research Associates (N/E/R/A), Pierce Atwood, Gaffney, Cline and Associates, Long, Aldridge and Norman, and International Development Planners, was selected by competitive bidding to perform the services of this contract for the United States Agency for International Development (USAID).

Work on this contract kicked off immediately following award and eleven programs were approved and begun during the first year of the contract. Much of this work continued into the second year, building on the accomplishments and lessons learned in the first year. New work, identified during the course of the first year, was also defined. To continue to meet the overall goals of the project and USAID's strategic objectives, the workplans were refined and adjusted throughout the first two years of the project. This allowed the project to continually meet the dynamic conditions and needs in the countries of Central and Eastern Europe and the Baltics. Brief program descriptions and accomplishments to date are highlighted in Table 1.2.

New programs started during the second year of the project include

- 1) Regulatory Assistance to the Latvian Energy Regulatory Council and Ministry of Energy
- 2) Tariff Implementation Assistance to the Lithuanian Pricing Commission
- 3) Electric Sector Business Performance Management Unit Assistance to Bulgaria
- 4) CENTREL Regional Regulatory Exchanges

1.1 Project Strategic Objectives

The primary goal of the Eastern European Regional Energy Efficiency Project is to develop a more economically sound and environmentally sustainable energy sector. The project is also working within the energy sector to increase the transfer of state-owned assets to the private sector, and accelerate the development and growth of private enterprises. These objectives will, in turn, foster the emergence of a competitive, market-oriented economy in which the majority of the economic resources are privately owned and managed. A number of supporting targets are also part of the greater objective, and include

- Development of policy and institutional framework for more efficient and rational energy production, use, private investment in energy companies, and improved technologies
- Strengthening intra-regional cooperation in energy and stimulating the development of new energy supply arrangements that integrate Eastern Europe with Western Europe and international markets
- Enhancement of the coordination of assistance among the European Community, the World

Bank, and the International Energy Agency to avoid duplication of efforts and to leverage limited US resources

- Assistance in establishing a business environment which supports private sector growth
- Promoting sustainable use of natural resources
- Helping to put into place laws and legal institutions which support democratic and market-oriented values

During 1995 and 1996, the project team also worked closely with USAID, in the development and implementation of the strategic objectives for the programs, develop measurable targets and indicators and helped the Agency monitor the results of the work being done in the region

Table 1 1 shows the countries we are working with and their key strategic objectives

Country // ENI Objective	1 3 Accelerated development and growth of private enterprises	1 5 A more economically sound and environmentally sustainable energy system
Bulgaria	IR 1 3 3 Key laws, policies and regulations foster competition and private sector growth	
Czech Republic		IR 1 5 5 Environmental and Energy Legislation and Regulatory Structure established and implemented
Hungary		IR 1 1 & 1 2 Effective regulatory body in place, Improved efficiency of production and delivery
Latvia		IR 1 5 1 Promulgation of energy standards, policies and legislation that supports restructuring and an energy efficient commercial market
Lithuania	IR 1 3 1 2 Energy Prices set to reflect actual economic costs	
Poland	IR 2 Improved long term provision of energy services supports a market economy	
Romania		IR 3 Improved profit oriented investment

1.2 Workplan and Project Tasks

The second year work plan and proposed activities for the project were developed during the course of the first year of the project by the Project team and Jacqueline De Rosa, Contracting Officer's Technical Representative (COTR), USAID. The following is a summary of the activities proposed in the second year work plan and indication of their subsequent approval/status

<u>Program Title</u>	<u>Status</u>
Electric Sector Business Unit Performance Management in Bulgaria	Approved and in progress
Tariff Implementation Plan for the Lithuanian Pricing Commission	Approved and in progress
Regulatory and Tariff Methodology Assistance to the Latvia Energy Regulatory Council and the Government of Latvia	Approved and in progress
CENTREL Regional Regulatory Exchanges Workshop	SoW under review
Phase I Extension of the Study of Long-Term Options for Restructuring the Power Sector in Romania	Approved and in progress
Maritsa East Commercialization Project - Bulgaria	SoW under review

Table 1 presents a brief summary of the accomplishments of each major task undertaken in the program during the first and second year of the contract and the significant accomplishments for each program to date

1 4 Table 1 2 - Summary of Tasks and Accomplishments

Task	Accomplishments To Date	Outcome
Tariff Methodology and Implementation Strategy in Bulgaria	<ul style="list-style-type: none"> • Two Workshops on pricing methodology, revenue requirements and energy planning • Interim and Final Report issued in 1996 • Submitted district heating component of draft report to the World Bank to assist in the preparation of the loan package • Task was completed in June 1996 	<ul style="list-style-type: none"> • Electric tariff rates were increased in October 1995, and tariff indexation was adopted • World Bank loan for the energy sector awarded in January 1997 • Committee of Energy is elevated to Ministry of Energy and Energy Resources (MEER) and given advisory capacity for electricity pricing
Electric Sector Business Unit Performance Management Assistance	<ul style="list-style-type: none"> • Conducted workshops on transfer pricing in June and September 1996 • Published the Interim Report, Pricing for Generation, Transmission and Distribution, in February 1997, presented Interim Report to Bulgarian groups • Refined work scope on next steps for implementing business units price regulation of generators and commercialization of generators 	<ul style="list-style-type: none"> • Bulgarian Restructuring Working Group endorses single buyer model in letter to Council of Ministers in early 1997 • NEK develops internal transfer pricing between operating divisions in early 1997 • MEER supports restructuring NEK into business units at USEA conference February 1997
Regulatory Organizational Development in the Czech Republic	<ul style="list-style-type: none"> • Seminar on US Regulatory Systems in October 1995 • Ongoing tariff and legal assistance to the Ministry of Industry & Trade and Ministry of Finance • Study Tour for Ministry of Industry, & Ministry of Finance representatives -December 1996 	<ul style="list-style-type: none"> • Further privatization of regional Czech electricity & gas distributors was again delayed. It is hoped that process will begin in 1997, once the basic regulation of the energy sector is complete • Amendments to Act 222 are under consideration by the Ministry of Industry and Trade officials, which would provide for the restructuring of the industry

<p>Regulatory Advice and Assistance to the Hungarian Energy Office</p>	<ul style="list-style-type: none"> • Draft public hearing process decree submitted to the HEO and the Ministry of Industry and Trade • Initial Operational Code approved • Draft tender guidelines circulated • Ongoing assistance in privatization tenders, licenses, and legal issues 	<ul style="list-style-type: none"> • First power sector privatization in Central and Eastern Europe to strategic investors • Licenses are issued or transferred to new owners by the HEO
<p>Tariff Methodology and Legal Assistance to the Latvian Energy Regulatory Council (ERC)</p>	<ul style="list-style-type: none"> • Draft methodology developed with the ERC in Fall 1996 • Draft final methodology report issued to USAID and the ERC in March 1997 	<ul style="list-style-type: none"> • The Government of Latvia is preparing for the privatization of its energy sector assets • ERC has met the initial conditions for a World Bank Structural Adjustment Loan
<p>Pricing Methodology Assistance to the Lithuanian Pricing Commission & Technical Assistance on Accounts Receivable at the Lithuanian Power Company (LPC)</p>	<ul style="list-style-type: none"> • Assisted the Lithuanian Energy Institute in the development of heat, gas and electricity tariff methodologies • Issued reports and procedures on correcting the Account Receivable problems at the LPC • Provided input on the database design for the Accounts Receivable function and training on Oracle databases 	<ul style="list-style-type: none"> • The methodologies were approved by the GoL in late 1996 • The Pricing Commission was formally established by Presidential Decree in December 1996
<p>Long-Term Advisor to the Government of Poland on Regulatory Reform, Energy Sector Restructuring and management of the Polish work program</p>	<ul style="list-style-type: none"> • Oversight and assistance on the approved workplan • Coordination with the Energy Restructuring Group (ERG) and other donor programs 	<ul style="list-style-type: none"> • The Polish Power Grid connected to the UCPTTE West European grid in September 1995
<p>Regulatory Organizational Development Training and Advice to the Government of Poland</p>	<ul style="list-style-type: none"> • Coordination of our training program with the World Bank ESMAP program • Continued advice to the Ministry of Industry and Trade and the Sejm on the Energy Law The Law establishes the Energy Regulatory Authority and allows for third party access 	<ul style="list-style-type: none"> • The Energy Law passed the Sejm in January 1997, and the Senate in early April 1997 The final bill is anticipated to be signed into law by the end of April or early May 1997

Privatization Program for the Polish Distribution Companies	<ul style="list-style-type: none"> • Technical assistance to several distribution companies in their restructuring efforts • Coordination with other USAID contract efforts in this area 	<ul style="list-style-type: none"> • The World Bank credit of \$160 million granted to the Polish Power Grid Company for further development of the transmission grid
Downstream Petroleum Sector Restructuring in Romania	<ul style="list-style-type: none"> • Rationalization and Critical Investment Summary Report - Volume I and Volume II were issued in draft to USAID, The World Bank and the Romanian Counterpart team in April 1996 • The reports to be finalized mid 1997 • Restructuring Implementation plan to be submitted to USAID and the World Bank by 4/97 	<ul style="list-style-type: none"> • The Romanian Parliament passed the Petroleum law • The new Romanian Prime Minister announced the pending restructuring and privatization of the refinery sector in February 1997. The restructuring includes the proposed shut down of 2 refineries
Study of Long-Term Options for Restructuring the Power Sector in Romania	<ul style="list-style-type: none"> • Interim Report issued November 1995 • Phase I Options Report issued April 1, 1996 • Phase I Extension Supplemental Analysis of Issues Paper issued in March 1997 	<ul style="list-style-type: none"> • World Bank and EBRD loans were approved contingent on the completion of Phases I & II of the Options Study • In February 1997, the new Romanian Prime Minister announced the pending restructuring of RENEL (the Romanian Power Utility)
Technical Assistance to the Romanian National Agency for Mineral Resources	<ul style="list-style-type: none"> • Petroleum regulation specialist, Pat Kelly, worked with NAMR staff on the development of technical regulations for the operation under the approved regulatory framework • The Bechtel/Gaffney Cline team provided negotiation and bid analysis training to the NAMR concession negotiating team • Procured and installed the equipment for the National Geological Database 	<ul style="list-style-type: none"> • The Romanian Parliament passed the Petroleum law, officially establishing the NAMR • The NAMR issued its first round of exploration and production concessions. Negotiations are underway with the bidders and are expected to be completed by Spring 1997
Regional Seminar on the development of Mineral Management Organizations in Central and Eastern Europe	<ul style="list-style-type: none"> • The Seminar was held in June 1996 at the Kempinski Hotel, Budapest, Hungary 	<ul style="list-style-type: none"> • Romania issued its first national licensing round for Petroleum E&P Blocks. Hungary continues to grant concessions for mineral rights

2 0 Bulgaria

2 1 Program Description and Sector Overview

The program in Bulgaria has focused on rationalizing energy prices so that energy enterprises can be fully self-funded and credit worthy. The Bulgaria Tariff Implementation Project completed in July 1996 developed cost-reflective tariffs for electricity and district heating supply, transmission and distribution services. The project included several formal training sessions for staff of the National Electric Company (NEK) and of the Ministry of Energy and Energy Resources (MEER).

Our current project in Bulgaria, the Electric Sector Business Unit Performance Management Project, is developing and implementing a system of transfer pricing between central functions, generating business units, and transmission and distribution functions. Transfer pricing is the first step in building the foundation for a restructured power sector in Bulgaria. Transfer pricing provides transparent cost-based signals and incentives for efficient management decision-making. This internal market approach brings the principles of the free-market system inside what is traditionally thought of as a single indivisible firm. In an internal market system, every organizational unit is a business in its own right, having its own customers, suppliers, competitors, and responsibility for the cost-effectiveness of its operations. The success of the unit depends on how well it serves its customers' needs. Such an organization is more likely to result in a dynamic, effective and financially viable enterprise than is a traditionally organized bureaucracy comprising numerous cost centers subject to centralized administrative control.

Recently we initiated a third project in Bulgaria, the Maritsa East Commercialization Project, which will investigate the organizational changes required to establish this key generator as an autonomous business unit. The assistance projects for pricing and Maritsa East Commercialization have been developed cooperatively with our Bulgarian counterparts at NEK and MEER, and with the PHARE program which is planning projects for implementing restructuring and establishing the energy regulatory authority.

Pricing reforms and commercialization are needed to attract investment from banks and strategic investors as the new Bulgarian government steps up efforts at privatization. To understand the magnitude of the problems facing the power sector, consider that the Bulgarian power generation sector requires capital investments worth 500 million U.S. dollars per year to rehabilitate and replace plant to ensure a reliable power supply for the future. Electric tariffs for the last five years have barely covered the cost of fuel inputs, NEK is in arrears, and there are no banks or investors actively seeking to finance projects in Bulgaria.

Our programs promote institutional change from within NEK and MEER. We are providing training and technology transfer so that Bulgarian pricing experts have the tools to develop sustainable cost-reflective pricing mechanisms. We work with our Bulgarian counterparts at the staff level to develop and implement appropriate cost-reflective prices, and we promote these efforts at the top management levels.

2.2 Program Status

The Tariff Strategy and Implementation project was completed in July 1996. The subsequent program on Electric Sector Business Unit Performance Management kicked off in June 1996. The Interim Report, Pricing for Generation, Transmission and Distribution, was distributed in January 1997. In the subsequent six months, economic chaos, political changes and management changes at NEK and MEER have impeded progress on pricing reforms and created a void for implementing pricing reforms. However now that the currency seems to be stabilizing and the new government has been elected we expect that conditions will be favorable for successful pricing assistance. The Maritsa East Commercialization Project is set to begin in May 1997 with a visit by the project team to the Maritsa East mining and generating complex.

2.3 Results To Date

Tariff Strategy and Implementation Plan.

In October 1995, the Committee of Energy operated the Tariff Module of the Integrated Resource Planning Model, linking investment plans with tariffs.

In November 1995 and February 1996, the Bechtel team conducted two Energy Tariff Workshops for Committee of Energy, Commission on Prices, NEK, district heating companies and Ministry of Finance.

In February 1996, the Bulgarian government implemented a pricing formula which automatically adjusts for inflation and currency devaluation. Also in February, the Bechtel/USAID team submitted the district heating component of draft report to World Bank to assist in preparation of loan package. The loan was subsequently awarded in January 1997.

In March 1996, electricity prices reach average of 26 \$/MWh and in July 1996, electricity prices reach an average of 35 \$/MWh.

In June 1996, Bechtel presented a paper, "International Perspectives on the Importance of Electric Tariff Transitioning to Cost-based Levels in Bulgaria" at the Bulgarian Energy Forum '96 in Varna, Bulgaria.

Electric Sector Business Performance Management Unit

The Bechtel team conducted the first Transfer Pricing Workshop in Sofia in June 1996 and the second workshop in September 1996.

In early 1997 the NEK Board voted to institute transfer pricing arrangements for its generating plants, and NEK staff was assigned to develop internal transfer pricing between operating divisions.

In February 1997, the Bechtel team completed the Interim Report for Electric Sector Business Unit Performance Management Program, "Pricing for Generation, Transmission and Distribution." The

document provides a theoretical and practical guide to pricing for business units. Bechtel conducted several meetings at NEK and MEER to discuss the report.

In February 1997, the Bulgarian Restructuring Working Group endorsed the single buyer model in an official letter of recommendation to the Council of Ministers.

In February 1997 at the USEA regional conference in Sofia, MEER endorsed restructuring NEK into business units, establishing cost-reflective transfer pricing for business units, and establishing cost-reflective tariffs for consumers.

2.4 Key Issues

The key issue for Bulgaria is the difficulty in implementing reforms in the current economic conditions that exist in Bulgaria. The economic crisis has limited progress on cost-reflective tariffs because consumers cannot afford to pay. Therefore, the project has focused on developing institutional capabilities in anticipation that in the future conditions will be ripe for reforms. We anticipate that the newly elected government will be more receptive to needed reforms, and we plan to begin now to focus efforts on implementing restructuring and reform at the business unit level.

Internal to Bulgaria, there is not enough progress establishing the legal and regulatory foundations for the energy sector. There is no commitment or progress establishing an energy regulatory board. Instead of entrusting pricing to a regulator, pricing is highly politicized, as demonstrated when the interim government recently unilaterally adopted its own energy tariffs, fired the Board of NEK and replaced the Minister of Energy, under the pretext that NEK and MEER were not capable of supplying the rationale for energy price levels. The legal/regulatory framework in Bulgaria has not been updated since the command-and-control regime. On the bright side, there are projects being planned to address the lack of institutional progress. In particular, PHARE is committing funding to establish a regulatory authority and write the energy law. Qualified personnel from MEER and NEK have received training and have the ability to form the core of a body responsible for cost-based price regulation and the oversight of least-cost investment planning.

Other key issues for implementing reforms include

- Bulgaria's insistence on continuing to operate Kozloduy Units 1-4 is a roadblock for any additional World Bank or EBRD loans that could be used to rehabilitate coal-fired electricity capacity. Currently the parties are at an impasse, and NEK has not had success developing alternative sources of capital.
- In some cases vested interests have had unfair access to decision-making, for example in fuel procurement, gas concessions etc.
- There is a lack of consensus on the least-cost investment strategy in the energy sector. Despite western advice to the contrary, some Bulgarian decision-makers insist that completion of the Belene Nuclear Plant offers a low-cost alternative. The potential role of energy efficiency has not been adequately addressed.

2.5 Third Year Activities

Electric Sector Business Unit Performance Management Project This project will implement transfer pricing for electric sector business units in support of a restructured energy sector. In the near term we want to focus on establishing and demonstrating a process for cost-of-service price regulation for existing generators. We plan to use Maritsa East, Varna and possibly a hydro plant as examples for cost-of-service transfer pricing, because these plants will be among the first autonomous business units, and have the best prospects for attracting private capital. The focus is on cost-of-service pricing because regardless of the ultimate structure of the industry, cost-of-service will be an important element, whether used for price regulation or for energy and capacity pricing in power purchase agreements. In addition to the pricing work, the project will provide theoretical and practical advice on implementing the single buyer model.

Maritsa East Commercialization Project This project will develop recommendations for implementing commercial business units at Maritsa East. This project will provide a management audit and develop a commercialization strategy for managing the complex consistent with market-driven business practices and transparent corporate governance. Maritsa East is used as case study because of its strategic importance due to its size and use of domestic coal. The project builds on the USAID/Bechtel assistance in tariff reform and transfer pricing.

Other Potential Assistance Projects

The Bechtel/USAID program in Bulgaria will remain flexible as the energy institutions change. We foresee potential assistance projects in the following areas:

- ***Extended Advisory Services in Energy Regulation*** An advisor with U.S. regulatory experience will provide theoretical and practical training in regulation of energy prices and industry performance.
- ***Implementing Restructuring*** This project will provide analysis of alternative structural models and develop strategies for attracting private investment under a range of potential future scenarios for the Bulgarian economy.
- ***Enabling Legislation for Reform of the Energy Sector*** This project will provide legal assistance on energy sector restructuring, concessions and regulation. This project will ensure that transparent, cost-reflective price regulation is implemented under the Bulgarian laws. The tasks will be designed to complement PHARE assistance to develop the Bulgarian Energy Law.

3 0 The Czech Republic

3 1 Project Description and Sector Overview

The Regulatory Reform Assistance to the Czech Republic has provided assistance in a two-step program. As part of the assistance, the Bechtel team conducted a Seminar on regulation in the energy sector in October 1995. The purpose of this effort was to provide sessions covering the legal and regulatory framework for the energy sector in the United States and the potential for similar systems in the Czech Republic. Experts in energy law, regulation, utility pricing, revenue requirements, project financing and policy framework in the United States traveled to Prague for the Seminar October 10 -12, 1995, which was attended by over 80 Czech Ministry officials, staff, and energy industry representatives and highly praised as informative and productive. The Seminar informed representatives of the Czech energy sector of the principles and experience of regulation in the United States, with specific advice regarding effective regulatory structures and procedures.

Following this Seminar, the Bechtel team developed a terms of reference for additional assistance to the Czech Ministry in this area. This assistance was designed to build on the Seminar and provide assistance to the Czech Ministry of Industry and Trade (MoIT) in the areas of regulatory organizational development, training, tariff setting and revenue requirement and cost analysis training, legislative and legal advice, regulatory experience information exchange via a study tour to the United States to meet with US regulators and industry experts.

The overall goals of USAID regulatory assistance in the area of energy regulatory reform and restructuring in the Czech Republic are to (1) structure a capability to implement the country's basic energy law, Act 222 and, more generally, to structure a sound regulatory agency for the energy sector, and (2) advance market development and privatization of the energy industry.

3 2 Program Status

The Czech assistance program is scheduled to end with the closing of the USAID Mission in Prague and the graduation of the Czech Republic from USAID assistance in September, 1997. The Czech Republic will continue to be included in regional programs, including those scheduled for the CENTREL countries (Czech Republic, Hungary, Poland and Slovakia) in 1997 and 1998.

3 3 Results To Date

The Ministry of Industry and Trade ("MoIT") has sought and been provided assistance in drafting proposed amendments to Act 222 to facilitate regulatory development, and clarify the scope of regulation and advance competition in the energy sector. The project team lawyers have worked with local counterpart lawyers and Ministry personnel to resolve key questions and issues such as the authorization and scope of regulation generally, marketer and broker participation in the sector, import and export regulation, and related issues. Draft amendments are currently being reviewed by the Ministry of Industry and Trade.

Recent efforts to increase the price of energy to market levels have been met with resistance from the highest levels of the Czech Government. However, in March, an announcement was made that consumer prices of electricity would rise some 15% later in 1997. It is a positive development, but it will still set the price of energy somewhat less than the cost of producing it, necessitating some government subsidies. Also unresolved is the issue of the division of revenue between CEZ, who controls generating and transmission capacity, and the distribution companies. Reports summarizing energy pricing methodologies and answering specific questions of revenue requirement and cost allocation were issued by Arthur Andersen advisors in March 1997.

Representatives of the MoIT, the Ministry of Finance and sector participants participated in a study tour in the United States in December, 1996. They met extensively with representatives of utilities (New England Electric Systems), power pools (NEPOOL), FERC and State Commissions at the forefront of sector restructuring (Massachusetts, Maine, Illinois).

8.4 Key Issues

The Czech Republic has been cautious in moving to privatize its energy sector or to make other changes in the status quo, post Act 222. The success of its economy in other areas has reduced the perception in the Government of the immediate need for energy regulatory reform or restructuring. The Ministry of Industry and Trade (MoIT) understands that Act 222 needs clarification and amendments to provide a solid basis for secondary legislation and implementing regulation and to be brought into harmony with the European Union (EU) directives, so that work continues in this area.

3.5 Third Year Activities

The project plans to complete its efforts to clarify and amend Act 222, provide support for additional secondary legislation and decrees and to open up the energy sector to competition including advice with respect to a tender process for new generation and further pre-privatization preparations. It is hoped clarifying legislation will be passed by the Czech Parliament by September 1997.

A workshop building on the work of Bechtel and Arthur Andersen experts in energy tariffs is scheduled to be held in May of 1997 in Prague. This workshop will bring together representatives from CEZ, the distribution companies, government Ministries and others to discuss ways in which to rationalize prices with the least amount of disruption to the Czech economy.

4.0 Hungary

4.1 Program Description and Sector Overview

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 requested consent from USAID to procure, ship and install basic computer hardware and software at the HEO, and provide information management support in conjunction with the procurement. To accomplish the objectives outlined above, the following list of tasks were developed and have been ongoing since September 1995 by Bechtel's team,

Task 1 Grid Code - The team has been providing support and advice to the Hungarian Energy Office in its efforts to draft and review the Operational Code. The operational regulations define the system's cooperation of producers, transporter and suppliers. The intent of the regulations is to create a viable system with regard to least cost production, security of supply, and control of the system. The regulations contain the Operational Code, the Dispatch Code, and the Distribution Code. The intent of this activity is to provide advice and review of the codes as they apply to the future power sector privatization efforts. The Operational code includes necessary rules for the tendering process.

Task 2 Advice on Guidelines for New Power Plants Licensing Procedures - The purpose of this task is to provide advice and consultation to the HEO as it develops guidelines and procedures for granting and approving licenses for the development of new power generating facilities. Bechtel team members are advising the HEO on these issues and are involved in discussions between the HEO and MVM, the transmission company.

Task 3 Legal Advice and Support - As the Government of Hungary moves towards further privatization and competition of the electric power sector, there is a continuing need for a clear and stable regulatory framework, which will assist in attracting investment. The current legislation does not provide for sufficient independence and authority of the Hungarian Energy Office. Through the work on this task, the HEO is being provided legal support to assist them by reviewing, and providing advice and comments as requested, on existing legislation and regulations and their applicability to power sector privatization efforts.

This task is also providing a part-time US legal team and two part-time Hungarian lawyers to the HEO. One Hungarian attorney is spending approximately two days a week working in the HEO's offices. Issues are discussed and referred to the attorneys for counsel on a variety of subjects,

including transfer of ownership of assets, performance guarantees and standards, and licenses, combining the US and global experience and the understanding of Hungarian law

Task 4 Tariff Assistance Workshop - The Hungarian Energy Office has the authority to prepare recommendations on energy prices and conditions for applying these prices. The methodology for calculating tariffs was developed by the Government with assistance from the Bechtel team

Task 5 Information Management Assistance and Procurement of Office Computer Equipment - In order to enable the Hungarian Energy Office to execute its targeted activities, a computer system (software, hardware, and service agreement) was procured, shipped, and installed in the Hungarian Energy Office to allow local area networking capability and access to the Internet. The Bechtel team is also providing the HEO with advice on how to best create and utilize an information management system sufficient to handle its many regulatory tasks

Task 6 Public Hearing Process According to the law, the Hungarian Energy Office is mandated to conduct a variety of consumer protection activities. The Bechtel team advised on a new Public Hearing decree and process, which was proposed to the Government in early 1996

Task 7 Meetings with US Regulatory Agencies - The team has supported regulatory exchange activities by arranging meetings in the US on regulations, organizational development with US regulatory experts and regulatory agencies. The technical assistance included funding for travel and related costs for senior members of the HEO to travel to the US and discuss common issues and relevant experiences in the regulation and licensing of electricity sector organizations with US regulatory bodies and US industry representatives. Exchange visits have been held with the Public Utility Commissions of California, Maine and discussions with state regulators from Oregon and Massachusetts as well as federal officials

Task 8 Standards of Performance Guidelines for Reliability of Service and Supply to Customers - The Hungarian Energy Office has the responsibility of developing the guidelines to establish the technical standards of electricity supply to ensure the customer is properly served. The regulator, therefore, needs to establish a method for collecting and evaluating customer data on the quality of electricity supplied. This part of the program is providing advice to HEO on developing business conduct rules to ensure customer satisfaction with reliability of electricity service and for establishing standards of performance and measurement techniques to assess performance against these standards

Task 9 Demand and Capacity Forecast Requirements - The Hungarian Energy Office is responsible for monitoring the power industry in connection with the medium and long term consumer demand and has the responsibility and authority to review and approve the supply companies' demand and capacity forecasts. The team is advising the HEO in developing guidelines for reviewing and approving supply companies' demand and capacity forecasts, and the role such forecasts play in assessing the need for tendering for new capacity

The Bechtel team is providing advice on the role of the HEO in monitoring electricity supply and forecasting future requirements in the medium and long-term time frame and on developing

guidelines for reporting requirements as part of the licensing process. They also assist the HEO in preparing reporting guidelines for power regulation licenses for use in presenting HEO's position to Parliament, and will provide a methodology for use by the HEO on how to evaluate demand forecasts.

Task 10 International Workshops and Conferences - The Bechtel team has provided arrangements for selected Hungarian Energy Officials to attend international conferences and workshops that relate to privatization, and regulatory policy in the energy sector, in support of technology transfer activities. The first of these Conferences was attended by Dr. Gabor Szorenyi, Deputy Director of the HEO, in New York City in April 1996. The second conference was held in London in November 1996, this was attended by Dr. Szorenyi as well as Drs. Szabo and Horvath of the HEO.

Task 11 Competition Study for the Hungarian Power Sector - The Bechtel team is working with the HEO and the newly established EU harmonization committee on the future structure of the Hungarian Power Sector and how Hungarian law and regulation will need to be modified or changed in order to comply with the EU directives on the liberalization of the power sector.

4.2 Program Status

Per Task 1 of the workplan, Alan Kidd, of ECC/KEMA, continues to work with the HEO on the Operational Code. Late last year, they granted conditional approval of the draft Code, which is now undergoing revision. He is providing ongoing assistance to the HEO in their role on the Review Committee and its subcommittees.

The first phase of joint work by US and Hungarian attorneys and Arthur Andersen on Task 2 in the areas of tender procedures was completed in 1996. A draft of Tender Guidelines and an appendix of technical requirements were submitted to the HEO for their review in February 1996. MVM is in the process of finalizing the tender process, and final review by the HEO is anticipated in mid-1997. This work is being coordinated with advice on demand forecasting, as the HEO exercises its regulatory role in the area of assessment of demand and the approval of plans to meet that demand.

On Task 3, Licensing, a great deal of work proceeds on licenses for power plants in various configurations of use. Numerous licenses for existing facilities have been drafted by the team and issued by HEO, and ongoing advice is being provided on such issues as the transfer of license rights to new owners and investors.

As a first step on Task 4, Mr. Sam Eskander, Bechtel, conducted a workshop/meeting at the Hungarian Energy Office 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. Assistance in this area continued into the second year of the project. As the HEO reviews tariffs in 1997, assistance will be provided on an as needed basis.

Task 5, Computer Equipment Procurement and Information Management System advice is proceeding. During the past year substantial progress toward improving the HEO's capability to manage information was made. Bechtel purchased and installed PC hardware and general-purpose office automation software for the HEO. We also began to design or select software to streamline the electricity licensing process.

The hardware and software include a file server, 5 Pentium-based PC workstations, a local-area network, printers and productivity tools, such as Microsoft Word and Excel. The equipment and software were installed and operating by August. We contracted locally for training and support services to assist the HEO staff in using the software and in managing its network. This system was purchased primarily for use by the Electricity Licensing Department. Since its installation, other users have been added to this network, which is forming the core of a standard, HEO-wide office automation system.

In parallel with setting up the office automation system, we began looking at ways to extend this system to help improve the process of licensing electric power facilities. Through a series of meetings with the HEO between April and July, we established criteria and an approach to implementing licensing software. We solicited bids and hired a local Hungarian firm (a consortium led by ComputerLand) to work with the HEO to analyze the licensing process and design software and procedures to make it more efficient. The analysis and design phase began in February, 1997. It will conclude in late April.

We also arranged for the California Energy Commission, which has recently developed its own software for licensing power plants, to consult with the HEO and the ComputerLand team. Three CEC representatives spent 10 days in Budapest during early March. The CEC gave valuable advice on licensing procedures and provided the HEO with CEC-developed software packages and operational procedures. The CEC's input was particularly helpful because its regulatory functions are similar to those of the HEO.

During the next year we will complete Phase 1 of the information management design effort and move into Phase 2, software implementation. During May 1997 we will prioritize tasks for Phase 2, establish a schedule and determine how the CEC software will fit into the HEO's system. Follow-up consultations with the CEC are tentatively planned for the fall of 1997. We expect the licensing software to be mostly, if not fully, operational by the end of 1997.

For Task 6, Public Hearing Process, a Bechtel 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 HEO-sponsored public hearing decree. This draft was reviewed by others in the Government, and this task was completed in 1996.

The team provided information in 1996 and 1997 relevant to Task 8, Standards of Performance Guidelines, including guidelines used by many US utilities and regulators. The team worked with the HEO to establish guidelines for reliability of supply, both in times of standard supply and in emergencies and strike situations.

Task 10, International Conferences - Dr Szorenyi, Deputy Director of the Hungarian Energy Office spoke at the Center for Business Intelligence's Conference on the Power Sector in New York City on April 15 and 16th. Bechtel, per this task, paid the costs incurred with this Conference, including air travel, hotel and per diem. Other conference attendance is anticipated in 1997, including UNIPEDE and Power Gen '97.

Work continues on Task 7, Meetings with US Regulators. HEO Deputy Director Gabor Szorenyi met with representatives of the Maine Public Utility Commission in April on his trip to the US and with Commissioners of other states in early 1997.

Task 9, Demand Forecasting. The Arthur Andersen team is working with HEO staff and supply companies in Hungary on developing their load and demand forecast reporting and evaluation abilities. The first workshop was held in Hungary in November 1996 to review fundamental principals. 1997 work centers on a pilot project with the Demasz supply company.

4.3 Results To Date

The program in Hungary has moved at an accelerated pace since its start in September 1995. The team has provided concise, practical and substantive assistance to the Hungarian Energy Office and is being asked for additional assistance as the program moves along. In December 1995, significant interests in two electricity generating companies and six supply firms were sold to strategic investors, producing revenue to the Hungarian Government based on an average selling price 125% of the suggested book value. Additional privatizations of generating companies took place in 1996.

The Bechtel team played a key role in the success of this privatization effort - the first successful effort of its kind to date in Central and Eastern Europe. Many investors looked to the stability and competence of the regulator, the Hungarian Energy Office, and saw its ability to provide transparent regulation in the power sector. Specifically, the Operational Code and the movement towards rational pricing mechanisms have been cited as significant indicators of the sophistication and determination of the HEO.

Hungary has, however, had difficulties over the last year with both its new investors and the public, because of the politicization of energy prices. Instead of allowing the HEO to recommend and set prices on an economic basis, the government stepped in and made these decisions independent of the HEO's advice. Subsequently, there have been complaints by the investors that they will not be able to meet the 8% return as promised in the privatization award. These problems have, in part, resulted in a delay in additional privatizations, including the privatization of MVM and the Paks nuclear plant.

It is hoped that 1997 will bring back about the forward momentum with which Hungary moved in 1995. The team will continue to work with the HEO staff to build their capability as an independent regulatory body. The developments of the 1996 in pricing have illustrated the need for independence, and makes the USAID assistance even more crucial. The energy sector work being executed in this contract clearly supports the important objectives of the USAID in Hungary.

4.4 Key Issues

The continued challenges of the third year of this program will include the ability of the assistance to keep pace with the rapid development of the HEO. Now increasingly being viewed as a source of information and clear regulation, the HEO is faced with many new questions on which they must render regulatory decisions, and the Bechtel team is often consulted for advice on a variety of issues.

During 1996, the Bechtel team was asked to add a task which examines potential future structures of the Hungarian power sector, with an emphasis on making it a more competitive system for a mature energy industry in Hungary and meeting European Union (EU) directives in the electricity sector.

An additional task which has been requested, is assistance in establishing an ongoing legal and regulatory competency within the HEO. The working relationship between the HEO, the Hungarian attorneys and the US team is outstanding, but preparation needs to begin for the time when this program is no longer in place. The Bechtel team has been asked to advise on the institutional development of the HEO, and will assist in the development of a staff recruitment plan in 1997.

4.5 Third Year Activities

Work will continue in the third year of the contract on all the tasks outlined in the workplan.

During the third year, work will continue on Tasks 1, 2, 3, 5, 7, 9, 10 and 11.

5 0 Latvia

5 1 Program Description and Sector Overview

The Energy Regulatory Council (ERC) was formed in July 1996 to regulate electricity and natural gas. It also regulates district heating prices in Riga. Outside Riga, it has responsibility for determining the methodology for setting district heating prices which are the responsibility of the municipalities. This project will provide the ERC assistance in energy facility licensing issues and assistance in the development of tariff methodologies for electricity, gas, and heat.

The overall goals of USAID regulatory assistance in the area of energy regulatory reform and restructuring in Latvia are to 1) aid in the development of an energy sector in Latvia that is capable of providing reliable, fair and economically priced electric, gas and heat energy service so to 2) effectively privatize the sector.

Latvia has one vertically integrated electricity monopoly, Latvenergo, and one vertically integrated gas company, Latvijas Gaze. Plans are underway to privatize both entities, so that these currently public monopolies become private monopolies. (Given the size of the country and other factors, further re-structuring to introduce multiple entities in each sector is not practical, at least at this time.)

Given this monopoly structure, strong regulatory oversight is required. Workplan objectives concentrate on (1) advising the newly formed Energy Regulation Council, its Chairman and the Energy Department of the Ministry of Economy in the development of regulatory methodologies and processes as prescribed in the Law on Regulation of Entrepreneurship Activities in Energy Industries passed in September 1995, (2) developing tariffs and licenses, and (3) promoting commercialization and privatization of the state-owned enterprise. Specific assistance focuses on development of primary and supplemental legislative acts and regulations for the scope of regulation, tariffs and pricing, review of existing and proposed tariff methodologies for gas, development of methodologies for setting electricity prices and tariffs, development of supplemental legislative acts and regulations for licensing of energy enterprises, and training Energy Regulatory Council staff.

5 2 Program Status

Under the current Workplan, substantial, concrete assistance has been delivered to the Energy Regulation Council (ERC) on tariff methodologies for electricity and gas and with respect to related tariff structure and data identification issues. As part of this ongoing work, a schedule for completion of the current tariff project through September 1997 has been established.

The mission and project are currently scheduled to end by September 1997. The USAID Riga Mission has proposed an extension of their mission and this project, in order to improve further the regulatory and tariff frameworks with the goal of achieving successful privatizations in the sector.

5.3 Results to Date

The second draft of the Energy Pricing Methodology report has been completed, staff training has been conducted, preliminary economic and financial analysis has been conducted for the electricity sector and workshops have been conducted on price cap and performance-based regulation. The Bechtel team has also worked with the World Bank in interpreting a structural adjustment loan conditionality associated energy pricing.

At this point, Bechtel has developed a detailed proposal for dividing all energy costs into those which are controlled by the enterprises (primarily labor, material and investment-related costs) and those which are not (primarily fuel and imported electricity). The first category is to be regulated under a revenue cap and the latter is to be passed through to consumers.

In regulation, the Government of Latvia adopted The Governmental Policy of the Republic of Latvia in the Electricity Sector in January, 1997 and The Governmental Policy of the Republic of Latvia in the Energy Sector in April 1996. In 1996, The Energy Regulatory Council was established, and Members chosen. Staff have been hired, and now the focus is on specific, "external" (as opposed to organizational) challenges, such as licensing, third-party access, and privatization. On-going dialogue has taken place regarding a draft "umbrella" energy law needed to supplement the 1995 Energy Law, and the appropriate structure of the Regulatory Board. The Ministry has incorporated many of USAID's suggestions in the current draft of the umbrella law, with the project furnishing specific legal assistance on provisions of the draft law as requested. Training in the legal area has been one-on-one between US attorneys and Latvian attorneys working at the Ministry.

Additional tariff and legal support has been requested to provide the necessary framework for successful privatization: concentrated tariff assistance, focusing on building knowledge and capabilities in Latvia to carry out pricing activities on its own in the future, assistance on new primary legislation and secondary legislation and regulation for each energy industry (electricity, gas and heating) to implement the Government's energy policies, creation of a coordination system with the privatization agency to avoid tensions experienced in other countries' in past privatizations, training of the Energy Regulatory Council, Ministry Staff, the Privatization Agency, Anti-Monopoly Commission and regulated companies, and preparation of model licenses and associated license support.

5.4 Key Issues

The original plans were made without knowledge of the World Bank loan conditionality regarding development of tariff methodologies. The subsequent discovery of this loan and its conditionalities has largely driven our now revised schedule and the content of our tariff assistance. The World Bank goals are largely consistent with the goals of the program, however, the schedule required by the Bank has allowed less time for basic training than originally conceived and more radical changes are being requested than we originally envisioned. As a result, client participation in and acceptance of proposals is different than originally planned. The ERC has requested more assistance which is under USAID consideration.

On the regulatory front, progress appears ready to accelerate in the immediate future. The Ministry has realized that fundamental changes and additions need to be made to Latvia's basic energy laws in order to facilitate privatization, which is anticipated to reduce inefficiencies and arrears problems, and has asked for USAID assistance in finalizing the umbrella law and drafting necessary secondary legislation and regulation to implement the laws.

Specific plans have been created to create the investor-friendly environment necessary for successful privatization.

Additional activities in both the tariff and legal assistance will depend upon USAID's decision regarding the proposed extension of the Mission office generally, and the energy program under the Bechtel contract specifically, beyond the original September 1997 close-out date.

5.5 Third Year Activities

A proposed workplan of additional activities has been developed and is under consideration by USAID and will depend upon the decision regarding the extension of the Mission and the program. The tasks in this new scope of work are:

TASK 1—TARIFFS

This task will build on the foundation laid by the current workplan and permit the ERC to implement specific methodologies for setting electricity, district heat and natural gas tariffs, to complete tariff design for the sector, and to administer the tariff-setting process. Execution of these supplemental tasks will include:

- 1) the identification and placement of a US tariff expert as a Resident Advisor to the ERC identification and
- 2) financial support of a counterpart Tariff Analyst within ERC to work with the Resident Advisor and assure implementation of a new tariff structure.

TASK 2--LEGISLATION AND REGULATION

This task would involve new work to provide as much assistance as possible in amending the Law and drafting secondary legislation and regulation, along with specific, focused privatization advice. It is possible that USAID would fund a part time attorney to advise the ERC and Ministry of Economy to support of this work.

The amount of training and licensing assistance that can occur depends on extension issues, as does new work in the area of privatization coordination. The Government of Latvia appears ready and poised to make significant strides in regulatory reform, with the concrete goal of successful privatization.

6 0 Lithuania

6 1 Program Description and Sector Overview

In general, energy supply in Lithuania is carried out by state enterprises. These enterprises are presently structured as vertically integrated state owned monopolies. For the moment, most of them were transferred into joint-stock companies, where shares of state are prevailing. Generation of electricity and heat is provided by AB Lietuvos Energija and Ignalina Nuclear Power Plant. AB Lietuvos Energija is solely responsible for transmission and export of electricity. Electricity distribution is also carried out by seven regional utilities of AB Lietuvos Energija. As a part of the Energy Law of the Republic of Lithuania, the State Control Commission of Prices for Energy Resources and of Energy Activities (SCC), was established as the regulatory body for the energy sector.

The SCC was initially established as a regulatory body by the President's decree of July 7, 1995 and has ten members for a five year term approved by the Government of Lithuania (GoL). The SCC has the responsibility of establishing principles of energy price-fixing, establishing rules for calculating prices and tariffs, checking and approving calculations of prices and tariffs of electric and thermal energy and natural gas for confirmation by the GoL. The SCC is given the right to control the quality of energy, its conformity to standards, and to inspect the trade in energy raw materials and energy products. In subsequent Presidential Decree in December 1996, the SCC was given a permanent staff, budget and is currently setting up its offices in Vilnius.

As stated above, AB Lietuvos Energija is responsible for the generation, transmission and distribution on power and heat for Lithuania. As a consequence of the recent changes that the country's economy has been experiencing in its transition from a planned to a market driven system, the payment abilities of businesses and the residential sector have worsened dramatically. Since the accounts receivable collection and monitoring practices exercised by AB Lietuvos Energija have not undergone any major modification they are inadequate to handle the current "crisis". Furthermore, the customers have not been considering payment for utilities as their first priority. The amount of receivables outstanding at AB Lietuvos Energija has been constantly increasing and creating cash flow problems. The potential doubtful accounts as of year end 1994 have been estimated at a level of 190 million Litas (USD 48 million) which is very high compared to the gross receivable balance of 422 million Litas (USD 105.5 million). Therefore, a work program was developed primarily by Arthur Andersen to address this problem and to assist the utility with its Oracle database training needs for this system.

The second year work was a continuation of work that was started or defined during the first year. The three main project tasks are summarized as 1) advise the State Control Commission of Prices for Energy Resources and of Energy Activities (SCC), on pricing, regulatory and organizational issues, 2) to provide assistance to AB Lietuvos Energija (formerly Lithuanian State Power System, LSPS) in organizing an effective accounts receivable system and 3) to provide Oracle data base development assistance and training to the Power Company accounting staff.

6 2 Program Status

Work on the first task concentrated on finalizing and approving the tariff methodologies for electricity, heat and gas sectors, and also included recommendations on regulatory and organizational issues. The work was performed for the SCC and was done in cooperation with the Lithuanian Energy Institute (LEI) acting under the contract with Ministry of Energy - Energy Agency (MEEA). Mr. Eskander and later on Mr. Bradaric, assisted in the development of pricing methodologies and in advising the Commission on other regulatory issues.

During 1996, the SCC functioned without permanent staff and offices. Given the responsibilities and the workload of the commission members, this situation was no longer sustainable. As a result, the commission formed a working group to propose to the GoL a new organization and functional structure for the commission. To help prepare this proposal, Bechtel drew up a list of recommendations on the organization of the commission and a list of duties the commission should perform. As part of the assistance, NERA prepared a report describing the regulatory structure and functions in selected European countries. In autumn of 1996, the commission working group finalized the restructuring proposal to the GoL. The proposal was accepted and the presidential decree establishing a new permanent regulatory commission was issued in December.

Work on the second task started in April and was performed as a joint work of Mr. Charles Jones of Bechtel and Arthur Andersen Vilnius staff. Mr. Jones made a number of trips to Lithuania and the team worked closely with experts from various departments within the utility.

The work focused on providing LPC with as many practical and realistic accounts receivable suggestions as possible, while imparting the option of involving our assistance in the practical implementation of these suggestions. Consequently, since our objective was to provide a "hands-on" experience and advise, and not to indicate deficiencies in the system, this report primarily includes the "programs" or "suggestion packages" resulting from our work, it does not set forth the day to day contacts, discussions, etc., but the report does accomplish a very valuable know-how transfer, which was highly appreciated by all LPC personnel.

Task started with a number of meetings with LPC's Energy Sales Department in order to identify the major issues faced in accounts receivable area and methods currently utilized to solve these issues. Simultaneously, the team performed a review of the "Global Best Practices" database in order to determine what methods and practices used in other utilities could be of help to the Company. This resulted in identifying a number of things, e.g. use of systematic collection process, structured customer files, cut-off procedures, timely legal actions against delinquent customers, etc. At the end of the above work the team compiled a comprehensive set of suggestions on how to solve the major issues identified.

The objective of the third project task was to provide assistance and support to LPC in establishing an Oracle software based computerized Accounts Receivable accounting system. This system would enable the LPC to achieve the proper control over its receivable function and will consequently, with the implementation of the new accounting procedures, facilitate a reduction of the proportion of potentially doubtful accounts.

The essential elements in computerizing the accounts receivable system are to select the database management system, to acquire the necessary hardware and software and to train enough staff at the host organization to implement the system. Lithuanian Power Company (LPC), as a result of the overviews of best practices around the world, had chosen the ORACLE relational database management system as a way to computerize their accounts receivable function. So far, LPC has invested a considerable amount of funds and time in obtaining the appropriate hardware and the software license to install the ORACLE software on their computers. With the hardware LPC got a limited amount of training for their core technical experts. The second part of the training is approved as part of the USAID activities in assisting the LPC in computerizing the accounts receivable system. Work on this task started in September and built upon LPC's recently completed design of the Oracle based accounts receivable system. As a tool to assist in the evolution of this system, Arthur Andersen and Bechtel experts prepared a reference report for computerizing the accounts receivable system capabilities.

A second part of the ORACLE accounting system assistance, is training in the use of the system. The training was provided to the LPC staff from all the district utilities and includes five Oracle development courses, with three training sessions per each course. Each session is for the 8 LPC staff for the total of 24 trainees per course. The training was performed by Information Technologies, the ORACLE licensed distributor for Lithuania.

6.3 Results To Date

The regulatory assistance's first phase was successfully concluded as a joint effort involving USAID technical experts and SCC members and their subcontractors from the Lithuanian Energy Institute (LEI). The assistance included work in developing electricity, heat, and gas pricing methodologies, description of regulatory practices in selected European countries, and assistance in drafting a mission guidelines for the new energy regulatory structure. The project resulted in adoption of new pricing methodologies and in establishing a new permanent regulatory commission along the proposed guidelines.

Accounting assistance was provided in two related tasks. LPC was continually very satisfied with our assistance. They have now taken ownership of the developed procedures and committed themselves to their implementation. Furthermore, the proposed procedures have been presented to the top management of LPC who have expressed their appreciation of the work performed and results thereof. At present, LPC's Energy Sales Department is working on the implementation of the recommendations.

The suggestions for improvement of the present procedures and implementation of the new procedures which were developed during this project will have a noticeable effect on improving debt monitoring and collection practices. These suggestions at the same time, form a reliable foundation for continuing to build a strong accounts receivable function at the Company in the future.

The accounting reports also benefited the Company with the descriptions of system capabilities common to most accounts receivable systems. These capabilities were organized into five major

categories of benefit to LPC 1) improve financial performance, 2) comply with western accounting Standards, 3) reduce costs, 4) improve service to customers, streamline operations and 5) to improve the company's image Each capability has been included in the category which represents its greatest benefit to LPC

As LPC seeks to improve areas of their operations such as improving financial performance, improving service to customers or reducing costs, this matrix its descriptions can serve as a guide to help LPC management identify capabilities which may be desirable additions to their Oracle system The Oracle training is bringing an adequate core knowledge to all LPC district utilities to successfully apply and further develop the new accounting system

Mr Charles Jones of Bechtel and Arthur Andersen staff finished work on the report documenting the Accounts Receivable assistance for the Lithuanian Power Company LPC (Task 2) in December 1996 They also finished work on the report summarizing recommendations on computerizing the accounts receivable function (Task 3) This report was translated into Lithuanian and submitted to the LPC project managers in January 1997 The Oracle training started in late November and is still ongoing with more sessions scheduled for April of 1997

Office and computer equipment for the regulatory commission was procured and delivered to Lithuania The equipment included two personal computers, two printers, and a copying machine

6 4 Key Issues

The permanent Energy Pricing Commission was established by the Lithuanian President's Decree in December The commission will have 5 permanent commissioners and a staff of about 20 people After the elections in October ,1996 the new government abolished the Ministry of Energy The Ministry of Economics now includes the responsibility for the energy sector

There has been a three month delay on start-up of the Tariff Implementation Work caused by the reorganization of the regulatory responsibilities and transition to the new regulatory body The tariff implementation project is now scheduled to start in April 1997

6 5 Third Year Activities

Third year scope of work is structured to provide critical technical assistance in the implementation phase of pricing reform Accurate calculation of energy tariffs and a reasonable implementation scheme are two essential steps in achieving the USAID energy policy goal

This project is designed to support the analytical component of the design and implementation of tariffs within the regulatory framework While, in the near term, it is anticipated that the significant portions of the energy subsectors will remain monopolies in need of regulation, major goals of the project are to 1) ensure that energy prices reflect the actual economic cost, 2) to make the tariff process transparent, and 3) to lay the groundwork for introduction of competition into the Lithuanian energy sector

7 0 Poland

7 1 Program Description and Sector Overview

This section reports on the second year's activities and results for the Bechtel-USAID "Regulatory Reform and Energy Sector Restructuring" Project in Poland. This Project was initiated in July, 1995 to continue and expand upon earlier USAID-funded work undertaken during 1993-95. It is a principal component of the Energy Sector Restructuring, Privatization and Regulatory Program started by the Government of Poland (GoP) in 1991.

The GoP Program is aimed at assuring Polish consumers long-term security of energy supplies at economically reasonable prices, while promoting the long-term financial viability of the energy sector. This is to be achieved through

- creation of a market environment for enterprise competition in all productive sectors that are not "natural monopolies",
- establishing a transparent and efficient regulatory system (including new tariff setting methodologies) for "natural monopolies" such as certain electricity distribution services,
- economic rationalization of prices and elimination of subsidies to the extent possible,
- commercialization and ultimate privatization of state owned enterprises in order to upgrade management and corporate behavior, as well as to attract private investment capital for rehabilitation, modernization and development of the energy sector.

To assist the GoP in accomplishing this ambitious transition, the USAID Project is designed to provide further technical assistance and training support to the Polish power sector, with emphasis on electricity sector privatization, energy legislation and policy development, and regulatory authority development and implementation. The focus of this Project is on the power industry, but its success depends on the overall progress of energy sector reform and especially successful establishment of the legal and regulatory framework.

More generally, technical support and advice in the energy sector of Poland is being provided by bilateral agreements and multilateral organizations. It has been an important task of the Energy Restructuring Group (ERG) to coordinate the international effort and to establish a discussion platform for different solutions proposed to Polish beneficiaries.

The ERG was established in late 1992. Since that time, the ERG has provided foreign and Polish expertise within and across the subsectors of the energy industry. In addition to its efforts associated with the reform of the energy industry, the ERG has participated in the drafting of several new laws and has been instrumental in shaping State energy policy that will affect the Polish energy industry and its customers. Funding for the ERG has been provided by USAID, European Union-PHARE and the United Kingdom Know How Fund.

The USAID Project is designed to elevate Poland's ability to attract foreign and domestic investment in the power industry, and thereby to achieve substantive improvements in the efficiency and effectiveness of the sector and pave the way for a commercially viable, customer oriented, and ultimately privatized industry to succeed in a competitive environment. To do this within the overall USAID Strategic Objectives 1.1--Privatization of State-Owned Enterprises, and 1.3--Private Sector Development is Stimulated at the Firm Level, the Project has the following overall objectives:

- * Creation of the legal and regulatory framework for the energy industry through the link with the ERG and in cooperation with other international programs that assist the GoP and the power, gas and district heating industries,
- * Introduction of advanced methods of tariff-setting under the new regulatory system, and practical implementation of tariffs by the electricity distribution companies,
- * Further restructuring of the power sector into economically viable and competitive companies, with an emphasis upon the distribution sector (including three demonstration projects and a generating company pilot project),
- * Preparation for the ultimate privatization of electricity distribution companies by development of practical guidelines on planning and operations, and through training of managers in organization development and good business practices

7.2 Program Status

Progress in regulatory reform and energy sector restructuring has been made, but at a slower pace than desired. Passage of the Energy Law (Energy Law) has been a prerequisite for meaningful privatization of, and investment in, the energy sector. That major step is at hand: the Parliament cleared the Law for Presidential signature in April, 1997, and promulgation is expected by May. The political consequences of the Law are not minor. Progress of reform is being impeded by social opposition to labor layoffs resulting from cost saving strategies of commercialized companies. Another impediment is the low level of social acceptance of energy price increases necessary to reach economic levels. Within the GoP, a major organizational revision at the beginning of 1997 has resulted in new Ministries, with attendant start-up problems (the Ministry of Industry and Trade, which was the principal agency for the energy sector, has been replaced by the Ministry of National Economy, with entirely new senior officials). A fourth concern is the Parliamentary election now anticipated for October, 1997, and the attendant politicization of the atmosphere. In the meantime, the electricity, natural gas and district heating industries have been functioning at lower levels of efficiency and higher levels of cost than necessary, and the required rehabilitation and environmental funding is not available.

The following facts mark the progress of the reforms by the beginning of 1997:

In the Legal Framework

- * The Energy Law has cleared Parliament in substantially the same form as sought by the GoP and drafted/negotiated with the continuing assistance of the ERG and this Project. The Project and the ERG provided input to the Sejm committee to counteract the Senate's amendments. Assumptions and drafts of the basic secondary legislation, needed to flesh out the Energy Law, are being discussed in the Parliament. The Project has ongoing involvement with the secondary legislation and ordinances needed to implement the Law.
- * The "Energy Policy Guidelines for Poland Until the Year 2010" document has been adopted by the GoP and approved by the Sejm. This is the basic planning resource for the energy sector, and it was prepared in the ERG under the Bechtel-USAID Project.
- * The GoP "White Book" on "Demonopolization and Privatization of the Polish Power Sector," with significant contributions from ERG and this Project, was accepted by the GoP in September 1996 as the official policy regarding further steps toward sector privatization.

In the Power Sector Restructuring

- * All power distribution enterprises have been transformed into joint stock companies, wholly owned by the State Treasury, as the first step towards privatization,
- * The first three distribution companies have approval from the Ministry of Industry and Trade (MoIT) to start the privatization process,
- * The large Combined Heat and Power (CHP) plants and five electric power plants have also been commercialized, starting the preparatory process for privatization of the generation subsector,
- * The "Energy Market Agency (EMA)," developed from a concept put forth by one of the Project's Polish experts, has attained initial funding and is in a start-up made as of March, 1997. The EMA is a commercial entity that will serve as an information clearing house and will provide sector planning and operational assistance,
- * The process of internal restructuring is being continued. Many enterprises have divested their non-core activities into separate subsidiaries or sold non-productive assets,
- * A bulk power tariff has been introduced. However, tariffs for final electricity consumers are still being set by the Minister of Finance. Prices for households are still uniform throughout the country and still are below their economic level. Prices for industrial customers have been slightly diversified. This does not allow proper functioning of the bulk power tariff.

To reach the objectives described above, this Project was reviewed in September, 1996 for the appropriateness of the initial work plan. Scope and emphasis revisions were made to reflect the current situation, and the Project now consists of three principal tasks, with supporting activities summarized below.

Task 1 Long Term Advisor

To provide the continuity needed to carry out this Project in an era of change in Poland, the project relocated an American expatriate long term advisor, Chris Turner, and paired him with Polish expert counterparts and staff support in September 1995. Under this Task, regular involvement with GoP Ministries and with the energy sector enterprises occurs both on a day-to-day basis and in more formal meetings and working sessions. Coordination is carried out among Project Tasks and with other energy sector efforts, particularly with the ERG, the World Bank-ESMAP project to implement the Energy Regulatory Authority (ERA) under the Energy Law, and those that also involve USAID support.

Activity 1 Long Term Advisor Ongoing Support

Planning, scheduling, arranging and managing delivery of workshops, training programs, Project reports and other work products are the responsibility of the in-country staff. The Long Term Advisor is also responsible for coordinating and managing USAID involvement and advising on energy regulatory development, with emphasis on electricity, including regulatory organizational arrangements and procedures, and energy sector privatization preparation, including development and implementation of restructuring programs, new policy initiatives, and management training.

Task 2 Regulatory Organization Development and Implementation

The Project Team is participating in the creation and implementation of the Polish Energy Regulatory Authority (ERA) to be established upon effectiveness of primary and secondary Energy Laws. Near term, the team is assisting the GoP in the development and justification of secondary legislation and regulations. The long term US advisor in Poland and his Polish counterparts advise the GoP and assist in the development of the ERA.

Activity 1 Continued Advice to MoIT on Establishing Legal and Regulatory Framework

The team has provided the GoP and members of Parliament with explanations and argumentation to support the Energy Law through the parliamentary debate, negotiations and voting. They also are participating in reviewing and commenting on secondary legislation documents and in the international effort to establish the ERA.

Activity 2 Training for the Energy Regulatory Authority (in Coordination with ESMAP) and Regulated Enterprises

(Further definition of these activities will follow promulgation and enforcement of the Energy Law and secondary legislation. As of April, 1997, the basic organizational structure of the ERA was under development, and the top-level positions were not yet fully defined and no positions had been filled. The specific training programs will reflect the staffing of the ERA.)

Activity 2a Training for the Energy Regulatory Authority

The team participates with ESMAP consultants in assessing training needs for the ERA Working Group, ERA top-level management and technical staff, and utility company staff involved in regulation, and in developing training programs

If appropriate, the team will develop and manage two technical exchange meetings in the US on the role of the regulator, and procedures for operation of a regulatory authority. These discussions would be held with US regulatory bodies and US industry representatives, including the Federal Energy Regulatory Commission (FERC), one or more state regulatory agencies, and other relevant industry organizations. The visiting ERA staff and participating US organizations will be briefed in advance of each trip on the relevant topic areas, and specific subjects would be outlined in order to offer a more meaningful and productive visit.

In-country training and briefings will be provided by the local Bechtel/USAID team and additional specialists as needed in legal and management training.

Activity 2b Tariff Setting Methodology and Implementation

This activity is scheduled to provide technical assistance to distribution companies faced with the task of setting tariffs on their own, when the legal/regulatory framework is in place. A preliminary regulatory seminar was held for a selected group of distribution compact managers in June, 1996, to provide a common base of knowledge and to assess the level of expertise among the participants.

Task 3 Privatization Preparation for Energy Enterprises

This Task focuses on working closely with the Polish distribution companies in the restructuring of the electricity industry into commercially viable, customer oriented and ultimately privatized firms. The long term US advisor in Poland and his Polish counterparts coordinate inter- and intra-sector assistance activities, including the interaction among the regulatory, generation, transmission, distribution and independent power production interests. Assistance to the distribution sector will focus on development of individual company tariffs (service terms and pricing), management, organization development and technical training, and privatization planning (business, corporate governance, strategic). The project will build upon the existing cooperation with Toruń and other selected companies to create "Industry Progress Leaders" and to use their trained and experienced personnel to transfer the know-how to the rest of the industry. Project subcontractor Arthur Andersen Polska of Warsaw is the primary consultant for the privatization and restructuring activities.

Activity 1 Privatization Preparation of Electricity and Heat Sector

The Association of Transmission and Distribution Companies and also the GoP have identified privatization of distribution companies as one of their top priorities. This activity prepares general privatization concepts for the electricity distribution sector, including discussion of possible privatization options. Preparation of work products for "roll-out" of results to the sector will be based on completed case studies of three pilot companies (Gliwice, Poznan and Torun) selected for the program by the T&D Association.

Similarly, the World Bank, supported by GoP, has identified the Rybnik Power Generating Company as a candidate for privatization in the electricity generating sub-sector. Bechtel-USAID has sponsored a comprehensive privatization preparation case study of the Company and will provide a similar "roll-out" effort to that for the distribution companies.

Activity 2 Restructuring of Energy Enterprises

Activity 2a ZE Torun Internal Restructuring Assessment

This activity undertakes continuation and expansion of efforts from 1994 with the Torun distribution company under a previous project, from which a Master Plan for the transition from a centrally-controlled to a market oriented company is being implemented. Under this Activity current progress on the ZE Torun Restructuring is to be summarized and the future direction of the project is to be established.

Activity 2b ZE Torun Internal Restructuring Implementation

The activity undertakes pilot redesign and restructuring of one or two selected processes, one of which would be new service connections, and then assistance in the implementation and development of implementation plans for other target areas.

Activity 2c Internal Restructuring of Electricity Companies

The manual produced within Activity 2a will be the basis for a workshop training for the power distribution sector in the practical use of the methodology. The training materials will be developed in Polish and training delivered in the middle of 1997.

Activity 3 Management Training for Restructured Companies

This activity is directed at both the organizational development needs of the distribution companies as operating entities in a changing environment, and the utility-side implementation of the regulatory framework. The ERA, when implemented, and privatization, when it occurs, will cause significant changes in the information flow both within and outside the utilities, and will require a higher degree of accountability for managers at all levels.

7.3 Results To Date

Although the industry-level progress is a function of the social, political and economic environment, the USAID Project has accomplished several meaningful results by focusing on specific opportunities. One progressive electricity distribution company, ZE Torun has been given significant additional assistance in a restructuring program that began in 1994. In a refinement of the initial scope, the Project has used a pilot company approach to provide interim privatization analyses of the Gliwice, Poznan and Torun regional electricity distribution companies that the other thirty companies can use as a guide to assess their financial, technical, legal and environmental situations, their likely valuations, and their privatization strategies. A similar analysis has been conducted for

Rybnik, a major generating company. During 1996, Project consultant Marek Grzybowski participated in development of a broad-based training program for managers of district heating enterprises, as a first step in advancing their understanding of commercial behavior. In March, 1997, the Project, with assistance from Bechtel-US, arranged and facilitated a study tour in California for senior executives of the Poznan electricity distribution company.

In the political arena, the Project has continuing involvement with the GoP in advancing the Energy Law and in supporting sector reform. Project consultant Mirek Duda, working with other ERG experts, has been a principal advisor to the GoP throughout the drafting, justification, negotiations and revisions of the Energy Law. He also has been instrumental in a working group's efforts to resolve a problem of hard coal pricing that has threatened both the financial viability and the long-term competitiveness of the industry, and that has a material effect on the health of the steam-electricity generating sector. Also, Chris Turner and Mirek Duda have provided briefings to interested foreign-based parties, including many potential investors/developers looking into the Polish situation, and to the Energy Committee of the American Chamber of Commerce in Poland, whose members need ways to present their positions to the GoP in the Energy Law discussions.

To get ahead of the impending implementation of the Energy Regulatory Authority, the Project has delivered a series of training seminars on regulatory concepts and practices. The first, in June, 1996, was a three-day basic regulatory practices program for a selection of managers from electricity distribution companies. The Bechtel-USAID Project then designed and provided training for an "ERA Working Group" and other Polish experts. The Working Group was set up in mid-1996 under the World Bank-ESMAP Project, in anticipation of passage of the Energy Law. A needs assessment revealed the need to bring the members of the Working Group to a common understanding of economic regulation and the regulatory processes that appear to be relevant for Poland. This resulted in two three-day regulatory seminars, in October and December 1996. In addition to Warsaw-based Project members, the training programs involved participation by Russ Brown, Floyd Davis and Tom Simpson from Bechtel-US, John Gulliver and Cathy Connors from subcontractor Pierce, Atwood, Jon Stern and Dennis Colenutt from subcontractor N/E/R/A, and Commissioner Karl McDermott from the Illinois Commerce Commission. Logistical arrangements in Poland for these programs, as well as for upcoming privatization and restructuring "roll-out" workshops, are carried out by Project consultant Agnieszka Sosulska. Further regulatory seminars are under development, including one that will focus on the gas industry.

In January, 1997, the Project sponsored two ERG experts' attendance at a two-week World Bank-University of Florida training program on regulatory strategy. Beginning in December, 1996, Marek Grzybowski took on a continuing assignment to assist the ESMAP Project in developing an ERA organizational structure and set of duties that are responsive to the guidelines set forth in the Energy Law and in Polish administrative practice.

These ongoing activities help to prepare the ground in anticipation of implementation of the Energy Law and the further commercialization and ultimate privatization of the energy enterprises.

7.4 Key Issues

Implementation of the Energy Law over a two-year period will be a challenging process. The Project is focused on the operational framework that will permit further progress toward transparent and appropriately limited regulation of the energy industry, and that will encourage commercial behavior and privatization. Successful implementation of the ERA will require a well-conceived program with maximum Polish involvement. Attraction and retention of top-level Polish expertise remains a potential problem. A change in government resulting from the elections anticipated for October, 1997 could slow or halt the progress contemplated in the Energy Law.

For the enterprises, a key issue is the extent to which their employees are "on board" for the changes that will come from privatization. Some enterprises, such as the Rybnik Generating Company and the Gliwice distribution company, have carried out extensive programs of employee familiarization, and appear to have significant support, other enterprises may face strong opposition.

7.5 Third Year Activities

With passage of the Energy Law, one area of focus will be delivering the needed training to the senior and mid-level staff of the new Energy Regulatory Authority. According to the best estimate of the implementation schedule for the ERA, the definition of the basic organization will be completed in May, 1997, and selection of the Chairman of the agency will follow shortly thereafter. This will lead to selection of key senior-level staff. At that point, a needs-based program will be devised and implemented in the latter half of the year and into 1998. Although not strictly related to training, the Project also will continue its involvement in designing the ERA organization and assessing the skills and experience levels of the staff. A potential added effort may be in helping to determine and arrange for implementation assistance in the important area of information technology and management for the new agency.

In the meantime, other training will continue. A special gas-sector program is to be delivered in June to both regional and headquarters managers of the "omnibus" gas company, which faces both restructuring and competition in the near future. The program will concentrate on the lessons and opportunities from the recent US restructuring.

Also, "roll-out" of the results and the processes used in the four enterprise privatization preparation analyses will be the subject of two seminars in September. The first will be directed to the electricity distribution companies and the second to the generators, although neither session will be exclusive. The process of determining the enterprise privatization strategies and their valuations will be described in detail for senior executives whose companies are likely to be part of the privatization of the sub-sectors.

Another "roll-out" will be delivered by the end of June, this involving the ongoing internal restructuring and strategic planning activities at the Torun electricity distribution company. The principal benefit for attendees will lie in their understanding of the steps that are involved in preparing the organization (and, in particular, its middle managers) for the changes that come from adoption of more modern business practices.

When the transfers of lessons learned from the privatization and restructuring efforts have been delivered, Arthur Andersen Polska's involvement will be substantially complete. There are likely to be follow-up opportunities for individual enterprise situations, these will be evaluated on a case-by-case basis. There is provision in the work plan for ongoing assistance to companies in the general area of change management, which will impact individual enterprises differently.

Returning to the ERA involvement, after November, 1997 the focus will include operational assistance and ongoing consultation to the new agency. Assuming promulgation of the Energy Law at May 1, 1997, the major implementation milestones are

- November, 1997 "Opening" of the ERA for business, albeit at a very basic and beginning stage,
- May, 1998 Completion of the secondary legislation process,
- May, 1999 Issuance of the several hundred licenses for existing (and any new) energy enterprises,
- November, 1999 Expected transfer of the price regulation functions and responsibilities from the Ministry of Finance to the ERA

During the two-year period, the distribution companies will need to have considerable assistance in learning to "cope" with regulation, on the one hand, and with commercial behavior on the other. Neither concept is well-known among the operating managers of the enterprises. This assistance, along with the ongoing support for the ERA through training and consultation on regulatory policies and practices, will constitute the "long term advisor ongoing support" for the Polish energy industry during the Project's third (and possibly fourth) year.

8 0 Romania

8 1 Program Description and Sector Overview

The project effort in Romania is characterized by its diversity. Three sectors are involved, the oil and gas upstream sector, the downstream petroleum, refining and petrochemical sector and the power sector. These, in turn, deal with regulatory reform, energy sector restructuring and privatization. The tasks undertaken are Downstream Petroleum Sector Restructuring, Study of Long-Term Options for Restructuring the Power Sector and Technical Assistance to the National Agency for Mineral Resources, the regulatory agency dealing with the oil and gas upstream sector.

The government of Romania has decided that fundamental reforms to the power sector, one of the most important sectors of the Romanian economy, is an integral part of its transition to a market economy. The Study of Options for the Long-Term Structure of the Power Sector, funded by USAID, was seen by the Government of Romania (GoR) as providing the basis for action for the sector's transformation to a market economy. The objective of the study is to assist GoR in selecting the structural option that will come closest to achieving its policy objectives and in defining the legal and regulatory framework most appropriate for implementation of that option. Phase I of the study concentrates on identification of a set of restructuring options and associated regulatory and legal framework while Phase II will focus on developing a detailed implementation plan for the preferred option selected by the GoR. Presently, the sector is controlled by the GoR and there is no profit incentive. With no competition there is little incentive to improve efficiency of the sector. Without transparent and objective regulation there can be little certainty regarding return on investment or other basic requirements of business. These factors make it difficult to attract private capital. Fundamental changes are required to promote a competitive environment for the generation of electricity. These changes can be achieved, in varying degrees by restructuring the sector and identifying and selecting a viable option to do so is the thrust of this study.

The oil and gas upstream and downstream sectors are also in need of significant restructuring, based on fair and equitable regulatory systems to encourage and promote competition, new capital and private investment. The GoR is actively pursuing this goal and in December 1995, passed a new national Petroleum Law which became effective on March 27, 1996. Two projects have been undertaken under the Contract to promote both sector's restructuring and development of new regulatory systems.

Romania's downstream petroleum sector is riddled with destructive distortions caused by central planning and regulation. Romanian consumers are being forced to pay excessive prices for refined products, Romanian oil producers are being forced to take low prices for their oil and the GoR is being deprived of an important source of tax revenues available in most countries. These distortions serve to prop up an inefficient sector that is burdened by structural over-capacity and excessive employment, and that is operated using management practices that destroy more value. To cure these problems, fundamental and radical change will be necessary. The government's involvement in the sector needs to be relaxed, prices must be permitted to respond to market conditions, and capacity and employment must be rationalized. Only then can the sector be restored to profitability and

become able to generate investment capital, and use it productively. These are the matters which are addressed in the Romanian Downstream Petroleum Sector Restructuring Project.

The last year has been an increasingly difficult one for the downstream sector in Romania. Globally, the fundamentals have worsened, and most participants in this sector are well into their own rationalization program. Virtually all the major independent oil companies have reduced their refining capacities, or formed downstream joint ventures to reduce costs and manage the assets more efficiently. The Romanian refineries have not rationalized, and must cope with shortages of raw material brought on by shortages of foreign exchange to pay for imported crude. Product prices are still controlled and set by the Ministry of Finance. While prices have been adjusted upwards several times, the high level of local inflation has made product prices generally below costs for the refineries. The government has made little progress liberalizing foreign investment in the retail sector. Amoco, one of the major long term players in the retail field, has shut down their development program and left the market. The GoR formed a national oil company and contributed the refineries, Rafirom, and other downstream assets in an attempt to address these issues and expedite payments and restructuring. The National Oil Company has not alleviated any of the structural inefficiencies in the sector and has spent most of the year tied up in the courts being challenged as a monopoly.

A new government was elected in November, 1996 and is more reform minded than the old government. It has taken action to begin privatization or liquidation of the excess refineries. Meanwhile the National Oil Company structure remains in place, complicating the situation. Unless some specific action is taken in the near term, the refineries will have a very difficult time importing the necessary crude to meet next Winter's demand for heating and fuel oil.

The upstream sector, one of the world's oldest oil and gas industries, suffers from a lack of operational and capital investments, centralized monopolistic operations which are not based on economic criteria, antiquated technology and inefficient use of the country's dwindling oil and gas resources. A significant infusion of capital is necessary to modernize current operations and expand exploration and development of new reserves. Based on the limited government resources available to fund such activities, private domestic and foreign capital must be encouraged to enter this sector.

The GoR in recognition of this need, is actively attempting to stimulate Western companies participation in the oil and gas exploration and producing activities to bring in capital for new ventures and to assist Romanian entities in the producing, servicing and manufacturing sub-sectors. To accomplish these goals will require a restructured sector, privatization of sub-sectors, introduction and access to common carriers pipelines and facilities and, most importantly, transparent oil and gas regulations to ensure fair and equitable treatment of private companies with government agencies. The National Agency for Mineral Resources' (NAMR) Technical Assistance Project supports this effort by assisting in developing and implementing oil and gas regulations, implementation of a National Database to encourage efficient use of oil and gas resources and to serve as the basis for data for promoting oil and gas concessions offers, and to implement rates and tariffs for third party access common carrier pipelines. NAMR announced the First Round Licensing offer of Romanian oil and gas concessions at the American Association of Petroleum Geologist annual conference in San Diego.

in May 1996 Assistance in San Diego was funded by the project Negotiations on this concession bid are currently underway between the bidders and the NAMR

The Downstream Petroleum Sector Restructuring in Romania Program

The purpose of the program was to a) create an economically and financially viable strategy for the downstream petroleum sector which will translate into a specific action for commercialization of the sector and b) develop a workable privatization scheme The workplan outlined ten key tasks to be undertaken in the first year of the contract The team proposed to execute these tasks along parallel paths reflecting the natural segmentation of the industry refining, petrochemicals, lubes, distribution and retail The team first concentrated its efforts on rationalizing the segment structure and performance These were then assessed in terms of their integration from an economic, commercial and technological perspective in order to create an overall sector strategy

The first five key tasks of the program were designed to evaluate and assess the five key segments of the industry Each evaluation and assessment was based on prior work

In Task 1 - Market Review and Assessment, the team established appropriate market scenarios with respect to crude oil, products, lube oils and associated price levels and also benchmarked the product quality standards The team reviewed prior work and updated the estimates of demand for the principle petroleum and petrochemical products for the next ten years (1994 base year with projections from 1995 - 2000 and 2005)

In Task 2 - Refining Rationalization and Segment Assessment, the team evaluated and assessed the technical, economic and commercial basis for the refining segment

Task 3 - Petrochemical Rationalization and Segment Assessment evaluated and assessed the technical, economic and commercial basis for the petrochemical segment and the interrelationship with the refinery segment

Task 4 - Lubeoils Rationalization and Segment Assessment and Task 5 - Distribution and Retail Rationalization and Segment Assessment evaluated and assessed the technical, economic and commercial basis for the lubeoil and the retail segment The focus in the lubeoils segment was on products for use domestically while the focus of Task 5 was to evaluate the role of distribution and retail in the industry

Task 6 - Restructuring Strategy Development involved a collaborative effort of the team in bringing together the specific segment findings from the previous five tasks into a cohesive vision of the industry Its purpose, to build a comprehensive basis for the industry to evolve from its current state into a commercially viable set of entities

The final four tasks of the program looked at key areas related to the industry, labor, privatization, environmental impact assessment and evaluation and the necessary policy and regulation requirements necessary to reform the sector

Task 7 - the Labor Transition Program looked to develop a program and identify measures which can be implemented by the GoR and the affected entities to ease the burden that this transition may impose on their staffs and labor forces

Task 8 - Privatization Plan, was designed to develop a workable strategy to privatize key segments of the industry and define actions to facilitate these transactions

Task 9 - Policy and Regulation Requirements determined the changes and modifications with respect to policy and regulations required to support the functioning of the restructured industry and its privatization, to assess the adequacy and need for environmental regulation, and to assess the institutional requirements and relationships under this new regime

Task 10 - Evaluation and Assessment of Environmental Impacts identified items which make a significant difference or impedance to 1) the individual refinery/terminal economies and 2) the potential for privatization. The majority of Bechtel's efforts will be aimed at updating and quantifying the environmental items identified in the Phase 1 Central and Eastern European Countries Regional Refining and Transportation Systems Study

The primary deliverables for this project are 1) The Restructuring Strategy, which addressed the prospects for each of the market segments based on the results of the tasks discussed above. The report then addressed the various restructuring alternatives for the industry as a whole, based on principals of economic efficiency, competition, value considerations, and commercial viability. A preferred strategy was recommended along with the requisite labor and corporate/organizational changes, policy and regulatory requirements, and institutional changes

The second part of this report, the Critical Investment Report, identified and provided justification for and prioritize the most significant investments for each surviving entity. Major investments were classified according to major process improvements, energy efficiency improvements, environmental projects and human resource programs

The third deliverable, the Privatization Proposals, presented a detailed plan, rationale and most appropriate modalities for the privatization of the refinery products retail marketing and service subsector and 3-5 large refinery/petrochemical entities. The report identified the up front actions required by the Government of Romania to facilitate the transactions

The Study of Long Term Options for Restructuring the Power Sector

The objective of the Study of Long Term Options for Restructuring the Power Sector in Romania program was to undertake a study of options for the long-term structure of the Romania electric power sector, including its legal and regulatory aspects. The team also looked at capital formation, commercialization and demonopolization/privatization in this sector. The study provided a detailed analysis of alternative options of sector structure for consideration by the Government

The main thrust of the GoR's policy is to improve the efficiency and reliability of the sector, and to meet the demand for electricity in the most economic manner, while minimizing negative

environmental impacts Reform will be on a progressive, phased-in basis The strategy to achieve the policy objective calls for

Legal and Regulatory Structure Reform - implementation of a phased-in and fundamental reform to the sector organization and to its legal and regulatory framework, to create conditions for effective competition and the participation of independent operators mainly in energy productions These reforms include creation of a framework for an independent and transparent regulatory structure,

Sector Restructuring With a Focus on Sound Commercial Practices - adaptation of the sector institutions to a market-oriented economy through restructuring of the business organization format to assure autonomy, accountability and adoption of sound commercial practices,

Privatization and Independent Power Production Participation - examination of existing privatization activities to determine a suitable climate for encouraging independent power to allow international capital investment in the sector,

Least Cost Investment Programs - adoption of least-cost investment programs, which focus on the medium term for the rehabilitation and modernization of existing supply facilities to meet demand and improve reliability, including measures to improve and sustain technical operational efficiency and minimize environmental impacts of the sector,

Market Based Pricing Policies - implementation of pricing policies that would assure sector economic viability and provide incentives for private sector participation and private sector capital,

Interconnect with UCPTTE - the interconnection with the UCPTTE system to allow participation in the larger regional electricity market, and

Financial Viability of Sector Entities - implementation of measures to stimulate efficient use of electricity and integrated resource planning, based on system-wide optimization, as well as measure to improve autonomy and financial viability of the sector

Once the GoR has selected a restructuring option, the team will identify

- The requisite modifications to the structure and organization of the sector
- Possible impacts on tariffs and security of supply
- Draft primary legislation required to establish the legal basis for the structure
- Guidelines for developing secondary legislation required to implement the legal and regulatory framework
- The structure and staffing of the regulatory body
- The actions necessary to implement the above recommendations

The proposed effort focused primarily on the power sector, with the heat supply system addressed only with respect to the role of CHP facilities and the issues related to cost allocation and impacts on pricing. The assignment was built on a review of existing studies and reports.

The study was designed to be executed in two sequential phases. **Phase I**. This phase included (i) the identification of constraints, (ii) the design of potential models, and (iii) the preparation of sensitivity analysis, and (iv) the presentation of potential models and recommendations. This Phase included a detailed diagnostic and analytical phase that set out to identify and evaluate restructuring options for the electric industry. It was a rigorous examination of the structure of the power sector in Romania from several perspectives which included the regulatory framework, legal structures, financial situation, current tariff practices and current reform processes.

The primary deliverables for this program are: 1) the Inception Report, which presented and discussed the results of Task 2, 2) the Options Report, which presented and discussed the results of Phase I. This report discussed the detailed assessment of the restructuring options and the recommendations by the team regarding each option, 3) the Action Plan Report will present the results of the Phase II tasks. Appendices will include the draft primary and secondary legislation. The action plan will be submitted three months after the GoR and the Steering Committee's decision on the preferred option.

The final report will be a compendium of the first three reports, plus any comments from the GoR and the Steering Committee regarding the proposed action plan.

Technical Assistance to the National Agency for Mineral Resources (NAMR)

The National Agency for Mineral Resources of Romania, NAMR was formed in 1994 pursuant to Government decision 417 issued in October 1993 in compliance with the conditions of a loan agreement with the World Bank. The Agency is responsible for both regulatory and business oversight of the upstream oil and gas business in Romania in addition to other minerals extraction, but has limited experience in international business or regulatory patterns. A goal is to develop transparency in administration in both areas to facilitate productive international and domestic investment in the industry to materially enhance the economy.

The project funded by USAID is intended to help the Agency in meeting its obligations in the oil and gas province by providing assistance in six Task areas. These are:

1. Implementation of a national rates and tariffs system for common carrier pipelines,
2. Developing regulations and a regulatory framework and management system for oil and gas exploration and producing,
3. Train Romanian entity database operators in converting and loading current and historical oil and gas exploration and production data into the National Database consistent with the system devised by NAMR and its consultant,

- 4 Purchase, deliver and install computer hardware at each entity for collecting and delivering data to the National Database,
- 5 Plan and provide air fare, lodging and facilities for Petroleum Sector promotional trip to the USA by the NAMR promotion team,
- 6 Provide two weeks professional bid evaluation economics and negotiating training in Bucharest for the NAMR negotiating team

Romanian elections in November, 1996 replaced control by the socialist PDSR government with the more center PNTCD coalition, which after some two and one half months instituted many economic measures which are favorably received by the IMF and many development minded people. The first NAMR President, Doru Badulescu is from the PDSR and resigned shortly after the election to take a seat in the Senate. The position stayed vacant until early March when Mihail Ianas was named. The period of hiatus in the office from November to March was largely void of substantial decision making until February when the two general managers decided the regulatory process and domestic contracting had to go forward and collaborated to that end. The cooperation continues at present.

8.2 Program Status

The Downstream Petroleum Sector Restructuring In Romania Program

The study was completed by a team of petroleum industry specialists with diverse technical, financial and institutional expertise. This USAID funded study was conducted under the overall supervision of Bechtel International, as the prime contractor to USAID. The team included the following companies and consultants:

Bechtel International, Inc	Arthur Andersen, LLP
Chimexim	Western IQ
InfoChem	Cambridge Energy Research Associates (CERA)
IntraTech	Liviu-Dan Ioan

The Team continued to execute the work begun at the inception of the task. The main conclusions of the Team's work was delivered in the summary Critical Investment Report and Rationalization Strategy in March, 1996. This report was then translated into Romanian and distributed in May, 1996. The detailed report was revised and reviewed by the team members, and delivered, in draft form, to USAID and the World Bank in early June, 1996. Following authorization, the report was distributed in Romania during a visit by the Team at the end of June, 1996.

In March of 1996, the Team conducted field work for finalization of the Privatization Initiatives Report. The Team was assisted by Mr. Bronik Dutkiewicz of Intratech. The initial draft version of the Privatization Initiatives report was completed in June, but then had to be extensively re-written and revised, to incorporate the subsequent formation of the Romanian National Oil Company. The changes were made, and a draft version of the report was submitted in September, 1996.

The Romanians issued an informal, written response to the Restructuring Strategy in late September, 1996. The Team traveled to Bucharest in late September and presented their findings in person, and discussed the implications and specific issues raised in the study. The Romanians disputed several of the key findings and offered their own strategy that did not include the permanent shut down of any refineries. The national elections occurred soon after this discussion and there was a period of little communication while new people assumed positions in the Government and in the Ministry.

The World Bank submitted its Aide Memoire in November, 1996 supporting the Team's conclusions and requesting a specific rationalization strategy from the Romanians. The Romanian response and strategy was delivered in February, 1997. The official Romanian strategy reiterated the informal one submitted previously, that is no refinery shutdowns, but elimination of second trains and maintenance, if not expansion, of the petrochemical capabilities. The Team is now developing a response to this strategy, and recommendations for proceeding.

The Study of Long Term Options for Restructuring the Power Sector

On November 4, 1995, the Bechtel team presented the Interim Report to the Romanian counterpart team, the Steering Committee, USAID and the World Bank. The team then moved on with its work necessary for the development and production of the Power Options Report. Work on the report continued into 1996 and draft was submitted for review to USAID, the World Bank, EBRD and others in February 1996.

On March 12, 1996, the Bechtel team presented the final report to the Steering Committee in Bucharest. Another presentation of the report was made to more senior level dignitaries in the Romanian Government, the US Ambassador to Romania, the USAID representative and others on March 15, 1996. The Phase I Final Report completed Phase I of the program and was issued April 1, 1996.

In October, 1996 the Ministry of Industries informed representatives from the World Bank and USAID that its choice for power sector structure was a variant of the Single Buyer Model that placed the single buyer function within a still vertically integrated RENEL. The World Bank and EBRD believe that that variant has certain critical shortcomings, and informed the Government of Romania of their views in December, 1996. However, in the interim a new government was elected in November, 1996 which appears much more open to reform in all areas, including the power sector. At the request of the World Bank, USAID supported a task to prepare a position paper evaluating power sector structures in the current circumstances. The paper was completed in March, 1997, and recommends an even more rapid transition to a competitive structure than the option originally supported by the Government of Romania.

The program now awaits the decision of the new Government regarding which option it will follow for restructuring the power sector. Once an option has been selected, the Bechtel team will commence with Phase II of the program.

The Bechtel led team consisted of several companies, local consultants and law firms with expertise in the international power sector, the Romanian power structure and the Romanian legal perspective. The team was comprised of the following companies, local consultants and law firms:

Bechtel International, Inc	Arthur Andersen, LLP
Pierce Atwood	National Economic Research Associates (N/E/R/A)
Mr. Liviu-Dan Ioan	Dr. Lucian Mihai

Technical Assistance to the National Agency for Mineral Resources (NAMR)

The program was initiated early in the project year and the original workplan was issued in June 1995, following a trip to Bucharest to discuss details of the plan with NAMR, and finalized in July. The workplan was revised in November 1995, at the request of NAMR, to accommodate delays in receiving certain information and documents from their consultants on rates and tariffs and software for the database. Effective the end of March, 1996, a long term advisor is on-site in Bucharest supported by short-term advisors on long trips in country during the project. The status of each task is discussed below.

Task 1 suffered extensive delays awaiting completion of pricing and economic analyses together with data gathering and design of a conventional rate and tariff program by the NAMR contractor, BEICIP. The crude oil and products report is now expected in draft form by March 31, 1997 and the final report by April 30, 1997. The gas segment report is estimated to be available in draft form May 31, 1997 and in final form by June 30, 1997 versus the December 1995 date estimated when the project started.

Bechtel's Gregory Waner will comment on the draft reports for NAMR and plans to arrive in Bucharest about May 1, 1997 to begin training of NAMR staff in rate and tariff theory and application together with use of the BEICIP computer model for crude oil and products. Similar assistance in the gas segment will ensue following delivery of the BEICIP gas report in June. The training and implementation of the tariff system in addition to designing and helping install a transition strategy are estimated to continue to the approximate end of the contract in March 29, 1998.

Task 2 is in the final months of planned work. Pat Kelly arrived in late October, 1995 and by January 1996 had completed drafting of exploration, producing and pipeline regulations. These were translated into Romanian and distributed to NAMR staff and representatives of the entities including Petrom and Romgaz. Comments were also provided on the draft Petroleum Law which was adopted December 29, 1995. NAMR prepared a package of Methodological Norms for implementation of the Petroleum Law and submitted it on March 28, 1996 for approval by the government. The

government gave approval of modified Norms eight months later on November 22, 1996 and NAMR assigned a team in early February 1997 to work with Pat toward bringing the draft regulations into conformance and also drafting contracts for administration of properties by Petrom and Romgaz. All of this is targeted for completion by June 30, 1997 with intermediate goals of completing the administration contracts by March 28, 1997 and the Database regulation by April 30, 1997. The work is progressing well with good cooperation at present.

For Tasks 3 and 4 the team continued making progress on the NAMR's National Petroleum Database project. We procured and installed five Sun workstations, one each for Atlas GIP, Foradex, Petrom, Prospectium and Romgaz. We arranged a comprehensive software training program for the staff of these entities. We made arrangements to provide networking equipment and PCs for the entities that were not part of the original plan or budget. We also worked with the NAMR and the entities on plans for building the database. The overall database project was delayed by external factors, primarily the slow procurement process for the NAMR's own computer systems.

Procuring its database computer systems took substantially longer than allowed for in the NAMR's original project plan. These systems were to have been fully installed and tested by mid-June, 1996. It now appears that this work will not be complete until July or August, 1997. No systems had been installed as of March 31, 1997, however, the procurement contract has been awarded and system delivery should begin in April or May. The procurement process proved to be very time-consuming for the NAMR database staff. This diversion of staff resources to procurement activities was arguably more detrimental to the project than the actual delays in delivery of the hardware. In spite of these difficulties, we were able to progress on our work plan to support the entities' database efforts.

During the summer of 1996 we purchased 5 Sun workstations and installed them in a temporary training facility in Bucharest. Between September and December we trained approximately 30 entity staff members on the basics of UNIX and Landmark's database software. Landmark provided this formal training, under subcontract to Bechtel, using its local Romanian engineers.

In December and January we moved the workstations to the entity sites and provided additional hands-on user training. We held separate meetings with each entity, in conjunction with NAMR and Landmark representatives, to plan a pilot project to begin building the database. We designed a local-area network for each entity site (except Petrom, which doesn't need additional networking equipment). We agreed to try to obtain additional PCs for the entities to use for loading data. In February we began working with the NAMR to develop regulations governing data submittals, primarily those intended for the database.

These database support activities will continue during the next year. The NAMR database regulations should be complete by the end of April, 1997. Installation of PCs and local-area networks at each entity site is due for completion in mid-May. During this installation process we will also provide additional training on UNIX system administration and network management. By early May we will review progress in building the database and develop more specific training and support plans for the remainder of the year.

Considering there will be no enforceable regulation before April 30, and an early summer date for useable computer equipment being in place at NAMR, together with heavy vacation traffic involving key NAMR and entity operators through the summer, it has been decided to begin the next phase of assistance work in September. This will involve more training of entity operators on data entry plus the formal UNIX training and possibly a short course in Landmark Stratworks for some of the entity people. These should be complete in the fourth quarter and wind up the database portion of the project.

Task 5 Petroleum Sector concession bid promotional travel for one week to the American Association of Petroleum Geologists May, 1996 convention in San Diego, California was substituted for a previously planned Houston trip. Arrangements for the five person NAMR team included air travel, hotel, meeting room with presentation facilities, organization and invitations for the presentations.

Task 6 involved two weeks of bid evaluation economics training with concurrent instruction in and simulation of contract negotiations for the ten person NAMR negotiating team. This occupied the second half of October and took place at the Bucuresti Hotel in Bucharest. Although the team earlier in the year had experienced similar training programs sponsored by Enterprise and Shell, NAMR management was uncomfortable regarding readiness of the team to undertake actual work in the trenches which was to begin in December, 1996 and appealed to USAID to fund incremental training. An evaluation conducted on site was convincing that the team needed additional help, and the project was approved. Economist Bill Cline and negotiator Stuart Travers, both of Gaffney Cline Associates presented the training and were well received. In related action three IBM Think Pad notebook computers were purchased by USAID and delivered to the negotiating team at the request of then NAMR President Doru Badulescu, to be used in bid evaluation work.

8.3 Results To Date

The Downstream Petroleum Sector Restructuring In Romania Program

All deliverables under the original task have been completed and delivered. The reports exist in draft form and can be upgraded to final form without a significant effort. The work was completed over a longer period than anticipated, and at greater cost, due to the slow response from the Romanian counterparts, and the complexity of the issues involved. The Team continues to provide a reduced level of analysis and advisory services as needed.

The technical staff within the Ministry continues to stick with the full capacity and minimal decommissioning strategy and recommendation, however the senior Romanian Government officials are making public statements recommending drastic restructuring and short term privatizations. The confusion on the Romanian side as to direction, authority and strategy make it difficult to predict the follow on requirements at this time.

The Study of Long Term Options for Restructuring the Power Sector

The project kicked off with meetings in Romania in July 1995. The team returned to Bucharest in September to begin work on the Interim Report. The Interim Report was presented to USAID, the World Bank, EBRD and the Romanian Steering Committee on November 4, 1995, following revisions suggested by USAID, the World Bank and EBRD. Following the final submission of the Interim Report, the team prepared the Phase I Power Options Report. This report was completed in draft form in mid February, only a month behind schedule and the final report was presented in Bucharest on March 12, 1996. Following comments from USAID, the World Bank, EBRD and the Romanian counterparts, a final Phase I report was issued on April 1, 1996. This submission marked the completion of Phase I of the project. Aside from a slight delay, resulting in a cost increase, the program remained true to the workplan originally approved in July 1995.

Since submission of the Phase I Options report the Government of Romania has not made its final selection regarding the preferred power sector structure. To assist the new Government in making its selection, Bechtel was asked to prepare a Supplemental Analysis of Issues concerning the options for power sector structure. A Bechtel team returned to Bucharest in January, 1997 and issued its final report on the task in March, 1997.

Technical Assistance to the National Agency for Mineral Resources (NAMR)

As mentioned in the Program Status section, Task 1 suffered significant delays due to the delay in delivery of the BEICIP report on crude oil products and the its associated computer model. Results from this task will not be evident until later on in 1997. As for the remaining tasks, Task 4 - Computer Hardware and Software procurement, Task 5, Petroleum Sector Concession Tour and Task 6 - Economic Evaluation and Bid Negotiation Training were essentially completed in 1996. Under Task 4, the Bechtel team procured and installed five Sun Microsystem work stations and companion equipment for the five source entities. The Task 5 Concession Tour was completed in May 1996 with the participation of the NAMR team at the Annual American Association of Petroleum Geologists in San Diego, California. Finally, Task 6 - Economic evaluation and bid negotiation training, was executed by Gaffney, Cline and Associates in mid to late October 1996.

Work will continue through the third project year on Tasks 1, 2 and 3, with Task 2 slated for completion by summer 1997 and Task 3 slated for completion by December 1997. Task 1, pending the receipt of the BEICIP reports will continue through the balance of 1997 and probably into 1998.

8.4 Key Issues

The Downstream Petroleum Sector Restructuring In Romania Program

The technical analysis and reports have been completed at a higher cost than anticipated due to schedule delays, additional analysis and review, and the problems associated with delivering very unpopular and politically sensitive recommendations. The Privatization Initiatives report was

essentially rewritten during the June/July, 1996 period as the formation of the Romanian National Oil Company was completed with no advanced warning, making most of the original text and recommendations moot

The formal presentation of the Rationalization and Critical Investments study findings was twice rescheduled, and finally conducted on September 30 and October 1, 1996, some six months after submittal of the summary report document. Following the elections, the turnover and uncertainty on the Romanian side has been very high, making it difficult to get decisions and direction from the Romanian counterparts.

Assuming funding is made available, it is recommended that time be spent with the new regime in Romania, to educate them on the specific work and methodologies done (the current senior officials often do not have a petroleum background and are getting their information third or fourth hand), update the results of our rationalization study to reflect current prices and market data (the downstream sector fundamentals have continued to move even more strongly in the direction we predicted making our conclusions that much easier to support) and developing support for the social impacts and consequences of a rationalization and privatization program.

The fundamental issues that must be resolved with the Romanians with regard to the downstream sector are political and social ones. Therefore an ongoing dialogue is necessary, and a targeted work plan developed that moves the Romanians in the direction of a specific rationalization and privatization program.

The Study of Long Term Options for Restructuring the Power Sector

There was a slight delay in the presentation of the Options Study. This was due to an increased level of effort on the revision of the Interim Report and to the time it took to put together the financial analysis data. The data had to be compiled from handwritten notes and took longer than originally anticipated. The original estimate was revised during November 1995 to account for the increased level of effort required to accomplish both the compilation of the financial data for the Options Study as well as the extra effort put forth to incorporate all the comments received on the Interim Report. However, the potential for delay was recognized early and the slippage on the report was less than 4 weeks.

The submission of the final Power Options Phase I Report completed Phase I of the program. According to World Bank and EBRD loan conditions, the Government of Romania was to have 90 days to make its decision on the long term structure of the power sector. In part because of a change in government following the November 1996 elections, no decision has yet been made. As a result it has not been possible to proceed with Phase II. The recently completed Supplemental Analysis Of Issues was prepared to assist the new Government in making its decision. Although the new Government has taken several steps that demonstrate its commitment to reform, restructuring the power sector involves complex issues and difficult tradeoffs. Consequently, it may require more time to come to its final selection.

The submission of the final copy of the Power Options Phase I Report in April 1996, completed Phase I of the program. The subsequent Supplemental analysis Issues was intended to clarify specific issues in the Phase I report and provide the new Government of Romania additional information on which they can base their decision. Once the decision on the sector structure has been reached, the Bechtel team will prepare and execute Phase II - Action Plan and Implementation of the Option.

Technical Assistance to the National Agency for Mineral Resources (NAMR)

Delays in receiving the rates and tariffs strategy reports for crude oil and gas (which are being prepared by BEICIP for NAMR) and in software development by Landmark have slowed the progress of Tasks 1 and 3, respectively.

8.5 Third Year Activities

The Downstream Petroleum Sector Restructuring In Romania Program

The Team is developing an action plan for the Government to implement their refinery privatization/liquidation program. Implementing this action plan will require significant support and funding from a variety of sources. The Team will be available to assist with the implementation tasks and the specific work plan and budgets can be drawn up when the funding, tasks and level of effort is resolved.

The Study of Long Term Options for Restructuring the Power Sector

Once a decision has been reached by the Government of Romania and the Steering Committee as to which Option they would like to implement, the Bechtel team will return to Romania and begin work on the Phase II tasks outlined in the description above.

Technical Assistance to the National Agency for Mineral Resources (NAMR)

Task 1 The Bechtel team will analyze and implement the BEICIP report once it is completed and will work with the NAMR staff on the computer model for rates and tariffs for crude oil and gas pricing.

Task 2 The Bechtel advisor will complete his tour of duty, assisting the NAMR in drafting and implementing their regulations. The Database and Concessions Regulations are to be completed by the end of April, with additional regulations to follow. He will also assist NAMR in implementing the regulations and in monitoring the results.

Task 3 The Bechtel team will complete the upload and networking of the national Database in the fall of 1997.

Task 4 All the computer equipment was purchased and installed at the NAMR and the five source entities This task was completed in late 1996

Task 5 The San Diego promotional trip concluded in June 1996

Task 6 The Economic Evaluation and bid negotiation training provided by Gaffney, Cline and Associates, as completed in October 1996 No additional work on this task is currently anticipated

9 0 Regional Assistance Programs**9 1 Program Description and Sector Overview****Regional Mineral Management Seminar**

The purpose of this task was to provide a regional seminar on the management of mineral resources in the countries of Central and Eastern Europe. The Seminar was hosted by the Mining Bureau of Hungary and USAID. Bechtel and the US Department of Interior - Mineral Management Services designed and planned the Seminar to reflect the success of the assistance to the Hungarian Mining Office under a prior USAID contract and to provide comparison of the history and current status of mineral management in Romania and in Bulgaria. The Seminar provided an extended opportunity to exchange valuable lessons learned on the development of market-oriented mineral management agencies and provided additional assistance through the participation of US specialists from US-DOI, the Bechtel-led team and USAID representatives.

9 2 Program Status

The seminar was held June 11 - 13, 1996 in Budapest, Hungary at the Kempinski Hotel. Three countries, Hungary, Romania and Bulgaria, presented their organization's history, including legislative developments, their steps taken to build an organization that functions in a market oriented economy, current issues and procedures and what steps they plan to take in the near term to become more effective. Presentations were also made by USAID, the Department of Interior's Minerals Management Service and the Bechtel team on the assistance provided to the Mining Bureau of Hungary.

9 3 Results To Date

The seminar was designed to provide a forum for these mineral management agencies to exchange ideas, lessons learned in the development process, and gain some different perspective on the restructuring process for mineral management agencies. Attendees at the Seminar included representatives from Poland, Croatia, Slovenia, Kazakstan, Hungary, Romania and Bulgaria. The speakers included Paul Teleki and Imre Varga, consultants from the original program, Robert Ichord, Jr., and Bruce Abrams, USAID, Peter Danforth and Pat Kelly, Bechtel, Bill Cline, Gaffney, Cline and Associates, The trainers from the Department of Interior (DOI), Jeff Zippin, Doug Koza, Bureau for Land Management (BLM), Roger Whatley and Marty Grieshaber, and Bob Middleton, Minerals Management Service (MMS) acted as the moderator for the Seminar. Country specific presentations were made by Dr. Peter Eszto, President of the Hungarian Mining Bureau (MBH), Dr. Antal Fust, Deputy President, MBH, Gabor Katona, Balazs Csep and Jozef Fabian, MBH, Doru Badulescu, President and Secretary of State of the Romanian National Agency for Mineral Resources and Dr. Christo Dabovski, formerly the Deputy Director of the Bulgarian Committee of Geology and Mineral Resources.

Each country delegation discussed the history, development and status of their organizations. The presentation of the MBH was much more detailed and gave a good accounting of how the office was developed and how the MMS/USAID team assisted them. Additional impromptu presentations were made by the Polish and Kazak delegations. All countries participated in the discussions that followed the planned presentations.

Each of the delegations made a point to extend their thanks for opportunity to participate in this Seminar and follow on seminars were discussed during the closing session. Invitations to host such follow on seminars were extended by Doru Badulescu, President and Secretary of State for the National Agency for Mineral Resources, Dr Dabovski, former Deputy Director of the Bulgarian Committee of Geology and Mineral Resources (CGMR), the delegation from Poland and Croatia. All would like to see the next seminar focus on some key issues, including balancing the environmental needs with the industrial needs of a country and also, additional training in mineral economics.

9 4 Key Issues

The program proceeded without any significant problems. The Seminar went well with positive feedback from both the participating countries and the speakers themselves. All felt that additional programs would be beneficial, especially if they focused on key topics and issues such as harmonization of mineral legislation and regulation with environmental legislation and regulation, economics of mineral management, etc.

9 5 Third Year Activities

Additional regional programs are currently in the plan for this contract. These programs include a regional exchange program for the regulatory institutions from the CENTREL countries (Czech Republic, Hungary, Slovakia and Poland) regarding restructuring in the power sector and a similar program for the Baltic States are being considered for 1997 and 1998. There is also discussion underway for a possible follow on seminar similar to the one held in Budapest, Hungary on the management of mineral resources in a market economy. This type of forum provides an excellent opportunity for like organizations in different countries to discuss the problems they face, the successes they've had and how they happened and is a good cross training event. The success of one organization can hopefully be passed off to other organizations. The meeting of the key players in these organizations is also critical to fostering good relations and exchanges between the countries of this region paving the way for these organizations to work together in the future.

10 0 Additional Third Year Activities

There are several countries and regional activities that will take place in the third year of the contract that are completely new activities. The scope of work for each of these activities are either not yet defined or approved and will be detailed in the Annual workplan due to USAID in May 1997. The following is a brief list of programs to be outlined for our third year workplan.

- 1 Bosnia, Electricity and Coal Pricing Study
- 2 Lithuania, Phase II Tariff Implementation assistance to the Pricing Commission
- 3 Baltic Regional Regulatory Assistance
- 4 CENTREL Regional Regulatory Exchanges Workplan
- 5 Maritsa East Commercialization Project for Bulgaria
- 6 Electric Sector Business Performance Management Implementation Assistance in Bulgaria
- 7 Phase II Assistance to the Energy Regulatory Council in Latvia

Additional activities may be outlined as the workplan is developed and will be included for USAID's approval as they are identified. These activities will work in conjunction with the first and second year programs continuing their efforts in the third year.

10 1 Conclusion

The second year of work under the Regulatory Reform and Energy Sector Restructuring Contract has continued to be dynamic and challenging. Much has been accomplished in the sector, such as the passage of the Energy Law in Poland, the continued privatization of electric generators and distribution companies in Hungary, and the permanent establishment of regulatory bodies in Latvia and Lithuania. The majority of these accomplishments are a result of our work under this and prior contracts with USAID. We believe that our continued assistance will set the stage for many more accomplishments in the energy sector. Additional privatizations are scheduled to take place in Hungary, Poland and strategic investors will be sought in the Czech Republic. The Government of Romania is expected to make and implement key decisions with regards to the Petroleum and Power sector structures during 1997.

Overall project management has been passed from Mr. Peter Danforth to Mr. Howard Menaker and work will continue in Bulgaria, Hungary, Latvia, Lithuania, Poland, Romania and Regionally. We anticipate new programs to start in Bulgaria, Bosnia, Latvia, and on a regional basis in the second year of the contract. We look forward to these and other accomplishments in the sector, deepening our ties with our Central and East European and Baltic counterparts and to successfully completing our major first, second and third year projects.

Table 2 Reports and Other Deliverables Issued Under the Contract To Date

Report/Deliverable Title	Date Issued	Author(s)
<u>BULGARIA</u>		
1 Interim Report - Tariff Methodology and Implementation Strategy for Bulgaria	December 1995	Bechtel
2 Two Energy Tariff Workshops in Sofia, Bulgaria for representatives of CoE, NEK and other industry representatives	November 1995 & February 1996	Bechtel & Arthur Andersen
3 Paper on "International Perspectives on the Importance of Electric Tariff Transitioning to Cost-based Levels in Bulgaria"	June 1996	Bechtel
4 Final Report - Tariff Methodology and Implementation Strategy for Bulgaria	June 1996	Bechtel
5 Two Transfer Pricing Workshops	June 1996 & September 1996	Bechtel
6 Interim Report - Pricing for Generation, Transmission and Distribution	February 1997	Bechtel
<u>CZECH REPUBLIC</u>		
7 Seminar on Regulatory Practices in the US and the UK for Czech Ministry of Industry and Ministry of Finance staff	October 1995	Bechtel, Arthur Andersen, Pierce Atwood, & Skadden Arps, et al,
8 Advice on revenue requirement methodology submitted to MoIT staff in the Czech Republic	March 1996	Arthur Andersen
9 Advice and memoranda on Act 222 (the Czech Energy Law)	November 1996	Pierce Atwood, Local counsel & Bechtel
10 Regulatory Assistance Report for the Czech Republic	December 1996	Arthur Andersen
11 Czech Regulatory Development Study Tour	December 1996	Bechtel, Pierce Atwood & the US Energy Association
<u>HUNGARY</u>		
12 Draft Electric Tariff Methodology Report issued	March 1995	Bechtel

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to the HEO Tariff Group		
13 Public Hearing Process Memorandum issued to the Hungarian Energy Office (HEO)	February 1996	Bechtel & Pierce Atwood
14 Comments on the Operational Code in Hungary	April 1996	ECC/KEMA
15 Licensing procedures for new capacity and direct sale power plant licenses for the HEO	October 1995 - April 1996	Pierce Atwood, Arthur Andersen & Bechtel
16 Draft New Capacity Tender Guidelines	June 1996	Bechtel & Pierce Atwood
17 Draft Tender Request for Proposal	June 1996	Bechtel & Pierce Atwood
18 Memoranda on legal issues and questions raised by the HEO	Continuous	Pierce Atwood
19 Computer Hardware for the Hungarian Energy Office (HEO)	July 1996	Bechtel & ComputerLand Budapest
20 Workshops for the HEO, distribution and supply companies on demand and load forecasting	November 1996 and April 1997	Arthur Andersen
21 Information Management Advisory Assistance - Phase I Design and set up of the HEO's system	March 1997	Bechtel, California Energy Commission & ComputerLand Budapest
<u>LATVIA</u>		
22 Draft Final Report in Energy Tariff Methodologies for the Latvian Energy Council	February 1997	Bechtel
23 Memoranda on revising the Latvian Energy Law	continuous	Pierce Atwood & Bechtel
<u>LITHUANIA</u>		
24 Draft gas, heat and electricity tariff methodologies issued to the Lithuanian Energy Institute and the Pricing Commission	March 1995	Bechtel & Gaffney, Cline and Associates
25 "Regulatory Organizational Structures in Other Countries"	September 1996	National Economic Research Associates
26 Accounts Receivable Assistance to the Lithuania Power Company (LPC or AB Lietuvos Energija)	December 1996	Bechtel & Arthur Andersen
27 Oracle Database Training and Computerization of Accounts Receivable function at LPC	September 1996 - April 1997	Bechtel, Arthur Andersen & Information Technologies

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<u>POLAND</u>		
28 Participation in drafting and negotiating the Energy Law in Poland	July 1995 - April 1997	Bechtel & Consultant team
29 Utility Tariff Workshop - Naleczow, Poland	June 1996	Bechtel & Consultant team
30 Implementing Energy Regulation in Poland Concepts and Practices - Jachranka, Poland	October 1996	Bechtel, N/E/R/A, Pierce Atwood
31 Implementing Energy Regulation in Poland Concepts and Practices II - Economic Regulation - Warsaw, Poland	December 1996	Bechtel, N/E/R/A, Pierce Atwood
32 Comments on the World Bank - ESMAP ERA Training Project	Fall 1996	Bechtel & Consultant team
33 Executive Summary for the Privatization Plan for three (3) Distribution Companies (full reports in Polish)	July 1996	Arthur Andersen
34 Executive Summary and Privatization Concept for the Rybnik Generation Station (full report to be translated)	March 1997	Arthur Andersen
<u>ROMANIA</u>		
35 Interim Report - Romanian Power Options Study	November 1995	Bechtel, Arthur Andersen, N/E/R/A, & Pierce Atwood
36 Study of Options for the Long-Term Structure of the Power Sector - Phase I Option Report	March 1996	Bechtel, Arthur Andersen, N/E/R/A, & Pierce Atwood
37 Supplemental Analysis of Issues regarding the Study of Options for the Long-Term Structure of the Power Sector - Phase I Option Report	March 1997	Bechtel
38 Rationalization and Critical Investment Summary Report, Vol I and Vol II for Romania	March 1996	Bechtel & Arthur Andersen
39 Privatization Proposal for the Downstream Petroleum Sector in Romania (DRAFT)	September 1996	Bechtel & IntraTech
<u>REGIONAL</u>		
40 Regional Mineral Management Seminar	June 1996	Bechtel, Gaffney, Cline & Assoc , in cooperation with the US Dept of Interior

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