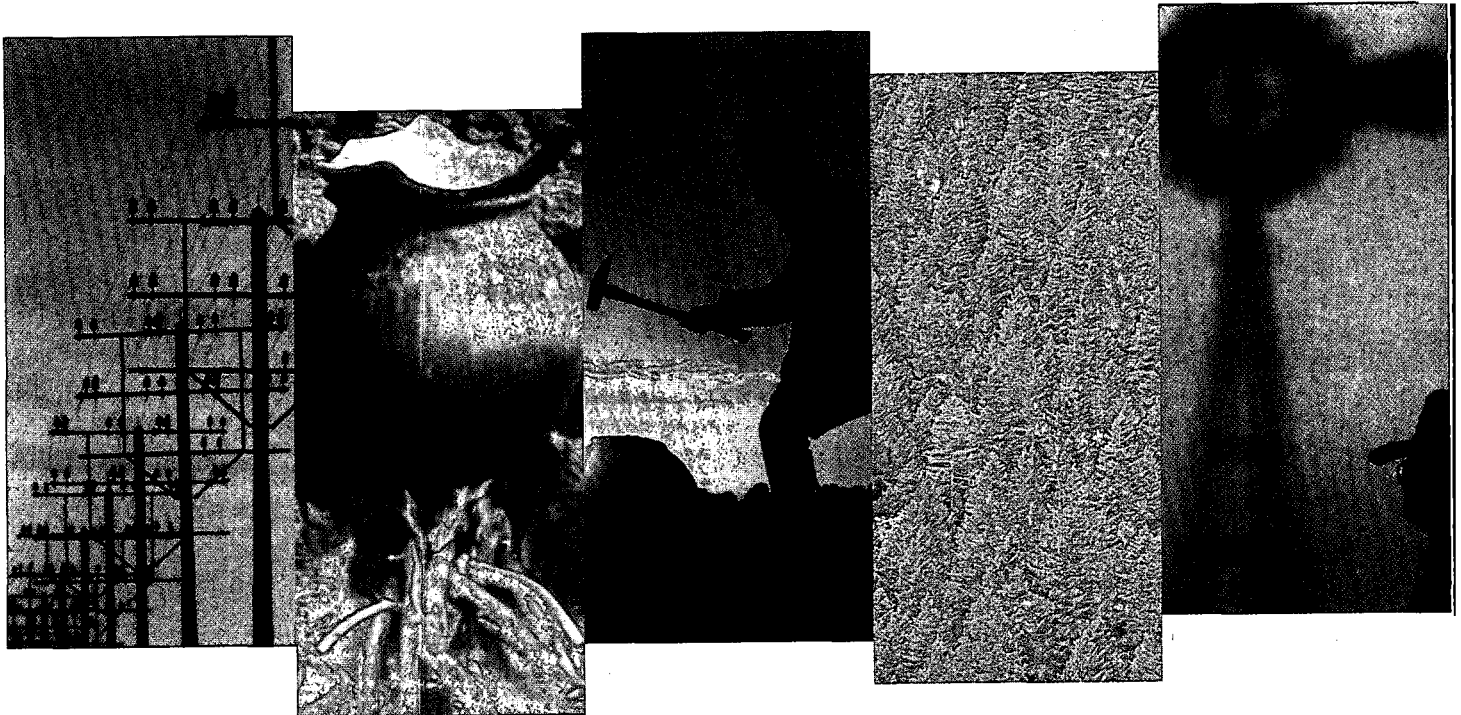


Poland
Energy Sector Restructuring Program:
Establishing the Energy Regulatory Authority

ESM208
October 1998



Energy

Sector

Management

Assistance

Programme



Report 208/98
October 1998

JOINT UNDP / WORLD BANK
ENERGY SECTOR MANAGEMENT ASSISTANCE PROGRAMME (ESMAP)

PURPOSE

The Joint UNDP/World Bank Energy Sector Management Assistance Programme (ESMAP) is a special global technical assistance program run as part of the World Bank's Energy, Mining and Telecommunications Department. ESMAP provides advice to governments on sustainable energy development. Established with the support of UNDP and bilateral official donors in 1983, it focuses on the role of energy in the development process with the objective of contributing to poverty alleviation, improving living conditions and preserving the environment in developing countries and transition economies. ESMAP centers its interventions on three priority areas: sector reform and restructuring; access to modern energy for the poorest; and promotion of sustainable energy practices.

GOVERNANCE AND OPERATIONS

ESMAP is governed by a Consultative Group (ESMAP CG) composed of representatives of the UNDP and World Bank, other donors, and development experts from regions benefiting from ESMAP's assistance. The ESMAP CG is chaired by a World Bank Vice President, and advised by a Technical Advisory Group (TAG) of four independent energy experts that reviews the Programme's strategic agenda, its work plan, and its achievements. ESMAP relies on a cadre of engineers, energy planners, and economists from the World Bank to conduct its activities under the guidance of the Manager of ESMAP, responsible for administering the Programme.

FUNDING

ESMAP is a cooperative effort supported over the years by the World Bank, the UNDP and other United Nations agencies, the European Union, the Organization of American States (OAS), the Latin American Energy Organization (OLADE), and public and private donors from countries including Australia, Belgium, Canada, Denmark, Germany, Finland, France, Iceland, Ireland, Italy, Japan, the Netherlands, New Zealand, Norway, Portugal, Sweden, Switzerland, the United Kingdom, and the United States of America.

FURTHER INFORMATION

An up-to-date listing of completed ESMAP projects is appended to this report. For further information, a copy of the ESMAP Annual Report, or copies of project reports, contact:

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Poland

**Energy Sector Restructuring Program:
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October 1998

Joint UNDP/World Bank Energy Sector Management Assistance Programme
(ESMAP)

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Preface

This report summarizes work undertaken by consultants appointed by ESMAP to assist the Ministry of Industry and Trade (MOIT) in Poland in establishing an Energy Regulatory Authority (ERA) in Poland. The ERA's activities were to be governed by a new energy law which was expected to be passed in 1995. This work was undertaken as a follow-up to ESMAP's Report No. 153/93 on Poland's "Energy Sector Restructuring Program". Initially, the work was carried out by a group of consultants led by KEMA ECC Europe BV. It included experts from National Economic Research Associates (NERA) and McKenna & Co. in collaboration with advisors of the MOIT and an international expert on regulatory law. Their main objectives were to:

- (i) Set out the regulatory procedures which ERA would follow for various matters such as licensing of facilities; principles for setting prices; procurement of new capacity; provision of information by utilities; monitoring supply quality; and handling customer complaints and imposing fines and penalties;
- (ii) Recommend an organization structure, management and staffing requirements for the ERA; working arrangements; resource requirements and office technology; and
- (iii) Provide assistance with recruitment and training of ERA staff.

In December 1995, the consultants issued an inception report outlining how the objectives of the project could be met. This report identified priority tasks and presented a workplan and major milestones for implementing the project. The schedule for project implementation was closely tied to enactment of the primary energy law by the Parliament and subsequently preparation of secondary legislation. Prime responsibility for drafting of the secondary legislation was assigned to a separate project sponsored under the PHARE Program of the European Commission. However, it was recognized that progress of the work under PHARE would need to be closely linked with that by ESMAP's consultants since much of the secondary legislation needed to be drafted before ESMAP's consultants could complete their work.

Unfortunately, the appointment of the consultants to prepare the secondary legislation was delayed and this led to delays in the ESMAP's consultants completing their work within the timing established and agreed from the inception report. Despite this problem, much was accomplished through drafting of working papers. These included outlines of the licenses; price regulation; Government's role; organization of the ERA and various reviews of international experience of energy regulation. In addition, a separate series of expert witness papers was drafted on the impact of European Union legal requirements on the ERA and the Polish energy sector; commercial arrangements for the power and gas sectors; and the relationship between energy policy and economic

regulation in Poland. These were reviewed and discussed with the Polish counterparts and the Energy Regulatory Group which had been established by MOIT.

By September, 1997 the Government expressed dissatisfaction with the progress and content of the consultants output and this led to agreement with ESMAP to restructure the project to give greater responsibility for managing the work to the ERA task force in the ERG. The task force was strengthened by appointment of a full-time manager who very effectively took full responsibility for managing and supervising the project in Poland in January, 1997. From this point on, the work proceeded very smoothly. On the Government's side, a new ministry, the Ministry of Economy (MOE), assumed responsibility and quickly established an excellent rapport with the ESMAP team. Much of the assistance from this point on consisted of short-term consultancies for discrete tasks directed at helping plan and organize the establishment of the ERA. Many of these tasks were undertaken by local experts under short-term appointments. They covered the organization, office plan, staffing and budgeting for the ERA. Subsequently, further work was done on the draft licenses and funds were provided for training of several ERA staff in regulatory issues at the University of Florida program which was established by the Bank some years ago.

When the project concluded in December, 1997 the regulator had been appointed and the ERA office established. Work was proceeding on the issue of the licenses and the secondary legislation was being reviewed by the Government. Subsequently the MOE has conveyed its appreciation of ESMAP's work and its satisfaction with the practical assistance given to developing the ERA.

Acknowledgments

This report summarizes the results of ESMAP funded work undertaken by the Government of Poland through its Ministry of Industry and Trade and subsequently from 1997 the Ministry of Economy's Energy Restructuring Group; supported by many international and Polish experts. This led to the establishment in 1997 of an Energy Regulatory Authority in Poland.

Financial support for the work was provided by the Dutch Ministry of Economic Affairs, the UK KNOW-HOW Fund, and Trust Funds from Denmark and Switzerland and USAID.

The project was managed by World Bank staff on behalf of ESMAP, initially by Luis E. Gutierrez (1995-97), then by Rachel English (1997) and finally Peter A. Cordukes and Manuel Dussan (1997-98). This report was drafted by Anita Ronne, Associate Professor of Energy Law at University of Copenhagen. Important contributions were provided by ERG staff in Poland especially Andrzej Mlotkowski, ESMAP's project manager, Andrzej Szablewski, MOE's advisor for regulatory matters. Support and collaboration of key officials in the Polish Ministry of Economy and the ERA were critical to the successful outcome from the work, notably, Andrzej Pierzak, Director of MOIT, Franciszek Krawczynski, Director of MOE, Leszek Juchniewicz, President of the ERA and Jacek Nowakowski, Director of the ERG.

Abbreviations and Acronyms

AMO	Anti-Monopoly Office
EM&CA	Energy Management and Conservation Agency
ESMAP	Energy Sector Management Assistance Programme
EU	European Union
ERA	Energy Regulatory Authority
ERG	Energy Restructuring Group
MOE	Ministry of Economy
MOIT	Ministry of Industry and Trade
MPPC	Ministry of Physical Planning & Construction
NERA	National Economic Research Association
PHARE	Poland-Hungary Aid for the Reconstruction of the Economy
PO&GC	Polish Oil and Gas Company
PSE	Polish Power Grid Company
UKKHF	UK Know-How Fund
USAID	US Agency for International Development
WEWB	Power and Brown Coal Board

Executive Summary

Under the project, ESMAP assisted Poland in establishing a new regulatory body for the energy sector - the Energy Regulatory Authority (ERA). The project included support for developing all the necessary tools for establishing a fully functioning regulator. It was implemented in two stages: the first stage from November 1995 till December 1996 included a general analysis of the regulatory options and international experience by international consultants and was led by KEMA-ECC Europe BV and NERA (UK). An inception visit in Warsaw (November 1995) provided an understanding of the organizational and regulatory situation in the Polish energy sector. It facilitated the basis for an implementation and staffing plan for the project. An Inception Report which was presented in December 1995 outlined the main tasks required to establish the ERA, the proposed work methodologies, and the provisional timetable and key milestones. This report was well received by the Ministry of Industry and Trade (MOIT), and the proposed methodology and timetable was agreed. The proposed methodology was highly interactive. The project was to be directed by the Ministry, expert input provided by the ESMAP consultants and all views of interested parties were to be taken into account. For this reason it was proposed in the report that several Working Groups and a Steering Committee be created. This stage was commenced in parallel to the parliamentary work on the draft Energy Law, but achievement of key milestones agreed in the inception report were frustrated due to the delay in the enactment of the Law and secondary legislation.

The second period lasted from January 1997 till February 1998 focused on the preparation of concrete proposals for the organization, budget and staffing of ERA. During this period the Energy Law was passed on 10 April 1997. However, the major part of secondary legislation had still not been passed by the end of 1997 when the project was closed. Although much work had been done by PSE and its consultants to define the power market rules and organization, no final agreement had been reached on development of the form of the power market in Poland. Consequently, completion of all steps needed to fully establish the ERA was not possible due to the uncertainty of the proposed commercial arrangements and issues such as access by power producers to the grid. Moreover, the Polish counterpart ministry was changed from January 1, 1997 due to reform of the central governmental ministries from the Ministry of Industry and Trade (MOIT) to the Ministry of Economy (MOE).

The project provided much written material, lectures and contacts to Polish officials to pass experience about the structures and functioning of regulatory authorities in other countries. Different organizational models were discussed in workshops and served as a basis for further work and preparation of the final proposal for the organizational structure of ERA "Office Plan 1998-2000". This plan provided the ERA staff with an understanding of ERA's core objectives and its key priorities for the first

three years of operation and provided a basis against which the ERA performance could be monitored. The ERA was formally established on 4 December 1997, based on the ESMAP proposals for its organization and staffing structure in the "Office Plan 1998-2000".

Under the ESMAP project, proposals for the ordinances on the Statute of ERA, for remuneration of the ERA staff, on license fees, and more detailed rules regarding the internal functioning and budget were prepared. The two ordinances for the Statute of ERA and remuneration of staff, respectively were enacted by the Ministry on 15 October, 1997, whereas a final version of the ordinance on license fees was not ready for adoption until early 1998. Moreover, the newly appointed regulator prepared a proposal for the budget based on the work of ESMAP and this was approved by Parliament by the end of January 1998.

The work connected to the preparation of draft licenses for the gas and power companies was carried out in two stages. The purpose of the first phase was to provide the legal framework for the licenses, to transfer international experience in licensing, including recent developments in the European Union and present a first proposal for the topics to be covered either in the licenses themselves or in alternative regulatory instruments (secondary legislation). The second part of the work focused partly on the further development of the scope of licensing and on the preparation of a specific license type - initially, the license applying to the electricity distribution companies and subsequently the gas distribution licenses - in a form which could serve as a basis for the staff of ERA to prepare the final draft form of the licenses. Pursuant to the Energy Law, licenses for the existing energy enterprises are not required to be granted till 4 June 1999.

The work on the development on pricing regulation methodologies was initiated in 1996, but was put on hold due to the lack of clearly agreed principles in the detailed legal framework (the secondary legislation). Seminars and a working paper were developed focusing on key issues that could arise when considering energy pricing from a regulatory perspective. The seminar and the working paper aimed at identifying "good" pricing practices for price regulation, and covered the main methodologies being applied in other countries for regulation of energy prices.

When the project was commenced, the responsibility for energy policy was divided between two ministries and economic regulation of heat was separated from the electricity and gas regulation. This situation required explicit consideration of CHP plants for electricity planning purposes and a central-local regulatory interface to ensure that the regulation of electricity and gas sectors by ERA would be consistent with the local regulation of heat companies and with the development of local energy markets. Subsequent legal changes simplified the process of developing consistent energy policy and regulatory coordination for all energy sectors. Thus the two responsible ministries were merged within a single Ministry of Economy and heat regulation became a responsibility of ERA.

The absence of decisions on some fundamental policy issues was from the very start of the project a source of problems for the implementation of a fully functioning ERA. The relationship of energy policy and energy regulation in a market-oriented energy sector were therefore analyzed and recommendations on specific action points for the Polish Government were developed under the project to provide a clear and effective policy framework within which ERA could become established and operate successfully as an independent regulatory agency.

As the final form of the secondary legislation or licenses was not established, it was not possible to develop regulatory procedures in any detail. Identification of a number of key areas in which decisions remain to be made or work carried out, and where the outcome of these decisions or work will have an important bearing on the future work of ERA have been addressed through so-called "Expert Witness Papers" dealing with the intended long-run market and commercial structure of the electricity and gas sectors and the impact of EU legal requirements on the establishment of ERA and on the proposed structure of the Polish energy sector.

The energy reform process in Poland has been long under way, and the implementation of the ESMAP project has been influenced by the regulatory uncertainty and lack of agreement on the commercial arrangements for the energy sectors. Nevertheless, the project achieved its main purpose when the ERA was established in December 1997. The adoption of the new Energy Law prior to this in April 1997 was the first and necessary milestone that was reached in order to establish the ERA. The next important step was the appointment of the President of ERA in June 1997. This established a most important counterpart for the project and led to a daily dialogue with the ERA on priorities for the project implementation. The adoption of the ordinances on the statute of ERA and remuneration of the ERA staff in October 1997 and the approval of the state budget for ERA in January 1998 provided the necessary steps to implement the proposals developed under the ESMAP assistance program. More work needs to be carried out, based on the comprehensive work that has been completed by ESMAP. A new project which may be sponsored by USAID has already been identified with the goal of creating an efficient information management system and plan for its implementation for ERA.

1

Introduction

Up to 1989, a command economy dominated the conduct of the Polish industry. The structure of the energy sector was characterized by vertically integrated State-owned monopolies. State subsidies and energy prices were fixed by the Ministry of Finance as an element of the general financial policy of the State. Heating and electricity supply to the residential sector was considered to be a social good, and prices were kept very low. Under the framework of the national economy transformation program, the Polish Government in 1990 started to reconstruct and modernize the energy sector which was one of the largest segments of the Polish economy.

A comprehensive reform program was officially announced for the first time in the Government's letter of Sector Development Policy to the World Bank in June 1991. In a so-called Letter of Intent, the Polish Government declared its determination to launch a set of reform policies - the most important being:

- price adjustment - to phase out subsidies and base energy prices on real economic costs;
- restructuring - to reduce vertical and horizontal integration of state energy enterprises and to merge them into larger entities;
- commercialization - as a first step to further ownership changes; and
- establishment of a new legal and regulatory framework which would be compatible with the new developments.

The power and lignite sectors were consolidated under the Power and Brown Coal Board (WEWB) from 1987 to 1990. Although sector activities were decentralized, the power industry behaved as a national state monopoly under the direct control of the Ministry of Industry and Trade (MoIT). Based on the initial ESMAP recommendations of a study on market structure, WEWB was liquidated in 1990 and the Polish Power Grid Company (PSE) was created as an independent joint-stock company. It is now 100 percent state-owned and responsible for managing the national transmission grid. The generation and distribution enterprises became autonomous and responsible only to MoIT.

In 1993, the Parliament enacted a law that allowed the transformation of state-owned enterprises into joint-stock companies and the transfer of transmission assets from the distribution companies to PSE. Based on this law, the government advanced the commercialization of the sector and transformed thirty-four of thirty-seven generators (including nineteen CHP plants) and the thirty-three distribution companies into joint-stock companies. PSE was consolidated as a company responsible for generation and transmission planning, development of the national transmission grid, control and dispatch of the interconnected system, and the operation of the wholesale market. It also became a majority shareholder in pumped-storage hydroelectric plants.

The gas sector was and is still dominated by a state-owned monopoly producer, transporter and supplier of gas - the Polish Oil & Gas Company (PO&GC). When Poland initiated radical economic reforms to substitute a market economy for central planning, it also needed to adopt a new institutional and regulatory framework for the gas sector to promote competition, introduce efficiency incentives, and encourage the participation of private capital. It has, however, taken some years for an organizational restructuring plan to be agreed and implemented. The first stage of restructuring was accomplished by the establishment of PO&GC as joint stock companies 100% owned by the State on 30 October 1996.

On the 10th of April 1997, the Polish Parliament adopted a new Energy Law and thus passed one of the milestones on the road to a competitive energy market. This action follows a long and comprehensive preparation phase which was initiated right after the fall of communism and discussions of more than 20 different versions. The project to draft a new Energy Law was launched already in 1991 under the auspices of the Ministry of Industry and Trade - now Ministry of Economy - and with the assistance from the Energy Restructuring Group (ERG). The establishment of a new regulation system for the energy sector was based on a concept of introducing market mechanisms in order to obtain an economic, stable and transparent market which could attract domestic and foreign investors. Thus, the intent is that whenever a competitive market exists, the regulatory involvement should be restricted to creating the conditions to allow the most efficient, cost effective operations and wider issues of safeguarding concerns such as energy security and the environmental impact of energy production and use. The new concept therefore also results in a redefinition of the roles and positions of the government, the energy enterprises and the customers.

1.1 Background of ESMAP Assistance

The overall objective of ESMAP's assistance in Poland has been to support the process of economic reform, and transformation of the energy sector towards a market-oriented system. A blueprint for the reform of the sector began in 1990, following ESMAP's review of possible industry and regulatory models (ESMAP Poland: Energy Sector Restructuring Program. Five Volumes. Report No. 153/93). ESMAP also proposed formation of the Energy Restructuring Group (ERG), which for more than four

years has played an important role supporting the Government's reform of the energy sector, and the design of appropriate policy measures which have culminated in drafting the Energy Law.

Under the current project, ESMAP has assisted Poland in establishing a new regulatory body for the energy sector - the Energy Regulatory Authority (ERA). In addition to recommending an organizational structure for the ERA, the project included support for developing all the necessary tools which would be required by a fully functioning regulator. Early in 1993, ESMAP prepared the Activity Initiation Brief. However, because there was no consensus in Poland on the need for a new energy law and regulation, the start of the project was extensively delayed, and it was not until 26 May 1995, that the Ministry of Industry and Trade (MoIT) agreed to carry out this activity.

1.2 Donors and Coordination of International Assistance

The assistance of ESMAP has been supported by the Ministry of Economic Affairs of the Netherlands, the UK Know-How Fund and the US Agency for International Development (USAID), and also trust funds provided by Switzerland and Denmark.

The focus of the USAID assistance has been on licensing, tariff regulation and training in areas of economic regulation and its operation under market conditions. The UK Know-How Fund financed the preparation of expert witness papers and the services of a regulatory expert for the Energy Restructuring Group (ERG).

Separate technical assistance has been also provided by the EU Commission under the PHARE program i.e.: through a project for Implementation of the Energy Law (development of secondary legislation), by USAID on energy restructuring, legislative and regulatory development and policy formulation, and by UK Know-How Fund which supported further development of a market structure for the power sector.

Cooperation with other donors was arranged through coordination with the ERG, since the ERG was already established in Poland supporting the Polish Government's reform and regulation of the energy sector.

1.3 Scope of this Report

This report records the results of ESMAP's technical assistance for establishing the Energy Regulatory Authority in Poland. It describes how the project was designed and implemented over a period of about 2½ years. It furthermore explains the organizational arrangements followed for implementing the project. Focus is given to the results achieved, including identifying the various reports and papers prepared and the associated training and workshops. The report finally provides a status of reform and recent developments in the energy sector.

2

Scope and Objectives of the Project

As a part of creating a new regulatory system for the Polish energy sector, the principal objective of the ESMAP project was to support the creation of a regulatory body for the energy sector. The main tasks in that respect were to define the organizational structure, operational procedures and resources and systems required to carry out the duties of the regulatory authority and specify necessary transitional arrangements in this context.

2.1 Terms of Reference

The ESMAP Work Program of May 10 1995, and the terms of reference as defined in the Contract with Kema-ECC for Consulting Services of 16 October 1995, provided a framework for the implementation of the project establishing the regulatory authority for the energy sector in 3 phases:

Phase I: ERA Activities and Procedures

- interpretation and elaboration of the duties of ERA in the long term and in the transition period;
- specification of procedures and system requirements, including among others on licensing, pricing, quality of service, dispute resolution, and dissemination of information

Phase II: Organizational Structure

- recommendations for the long-term organizational structure, including among others the high-level management structure and qualifications, the number and type of regulatory staff needed, internal working relationships, twinning arrangements with foreign regulatory bodies and transitional arrangements

Phase III: Recruitment and Training of ERA

- assistance relating to a strategy to initiate staff recruitment and design of a training program

It was anticipated that the Energy Law which would govern the activities of the ERA would be passed in 1995. During project implementation, four stages of work were anticipated, involving the preparation of an Inception Report setting out the work and staff plan for the entire project, and three working sessions covering Working Papers, Round Table Meetings and Workshops. The nature and scope of each Working Session was to be based on the proposals in the Inception Report.

2.2 Work Plan

An Inception Mission was conducted in November 1995 by the consultants and the ERA task-force in Warsaw. Over 20 meetings were held with key energy experts in Poland in order to familiarize the consultants with the current and proposed legislative background, regulatory framework as well as with the proposed industry and market structure in Poland and to plan the work program for the project to establish ERA.

The Inception Report identified the key issues to be addressed, and included a work plan listing the priority activities. It determined tasks and deliverables of the consultants and defined the major milestones of the project, including prospective dates for key deliverables over the course of the project. The work program in the Inception Report was thus more detailed and focused than the Terms of Reference. As anticipated, the project was designed to last 12 months.

The Inception Report was viewed as a general blueprint for the project which could be revised in the light of events such as further development of the Energy Law and secondary legislation.

It was proposed that the Ministry of Industry and Trade (MoIT), on behalf of the Polish Government, would be actively involved in the process. Due to the tight timeframe for the project, an active commitment from all relevant parties in Poland and a substantial support from relevant ERG experts, were assumed to achieve the objectives of the project.

The project was structured into the following list of "task areas", taking into account the tight interdependence between the requirements of ERA and the development of the Energy Law and secondary legislation:

- Licenses
- Secondary Legislation
- Price Regulation
- CHP Regulation: Interface between ERA and the Voivods
- Governmental Role and Views
- Transitional Issues
- Other ERA Procedures

- ERA Organization
- Training and
- Other Issues.

Each of the identified tasks represented a major field of activity to be covered in the workplan and would involve different activities. An *Assessment Visit* was to be undertaken in Poland to identify and meet with relevant Polish counterparts in close cooperation with the appropriate ERG staff members. *Initial Working Papers* would record the findings of the visits and identify major issues to be addressed in the remainder of the task. *Workshops* were anticipated to provide a focused discussion of key issues and be used to set up a *Working Group* of the appropriate external and Polish representatives to take the process forward and consider and discuss relevant draft documents between consultant team visits. At *Roundtable Meetings*, key people could discuss and recommend the solution to key aspects of energy regulation and on key issues considered in working groups. These meetings were at the same time seen as providing important training elements as well as developing the substantive work. So-called *Milestone Weeks* were designed as opportunities for the consultants to meet Working Groups to discuss working papers and plan future activities. Finally it was proposed that the Polish authorities would, as soon as possible, set up a *Steering Committee* to monitor progress of the project, to endorse decisions taken by lower level groups, and to decide on priorities for subsequent work. The MoIT was requested to take part in all the above mentioned activities at different levels.

The Inception Report was presented to the Polish authorities in December 1995 and following discussions with the Polish Government, ERG and industry, the Work Plan was agreed with the Polish counterparts in January 1996.

3

Organization Arrangements

3.1 Government of Poland

This activity was specially designed to ensure local ownership and leadership of the process and the Ministry of Economy - earlier the Ministry of Industry and Trade - on behalf of the Polish Government acted as the direct counterpart of the project. Due to the central administrative reform (see point 6.1.), the Department of Energy changed in organization and staff as from January 1, 1997. This action implied a shift of Polish counterparts which fortunately had no adverse effect on the outcome.

3.2 Energy Restructuring Group (ERG)

Power reform in Poland was carried out within the framework of the Energy Restructuring Group (ERG) to ensure that the knowledge of the Polish energy sector that had already been gathered in this group was retained and to ensure that the required tasks supported by different donors were coordinated. Staff of the ERG have provided substantial assistance to the project.

The ERG was established in 1992, under the MoIT, but located outside the ministry. It was funded by the European Commission through the PHARE program (as from 1996 also by the Synergy program), US Agency for International Development and UK Know-How Fund (UKKHF) to support the Government's reform of the energy sector.

ERG was originally composed of foreign experts twinned with Polish experts. This group, however, scaled down its activities in 1995 when seven out of 13 foreign specialist left ERG, and subsequently in 1996 when only one foreign specialist continued his activities full time together with a group of local specialists. By the end of May 1997, ERG ceased operation.

3.3 Energy Regulatory Authority (ERA) Task-force

A regulatory task force was established in Poland, within the ERG, to coordinate and implement the project, subject to supervision by ESMAP-World Bank in Washington. The task force worked with an international consortium of consultants (NERA, KEMA and McKenna) under the leadership of the Dutch firm KEMA-EEC. Studies to assist the formation of the ERA were commissioned in 1995 to this foreign consulting team.

From 1997, the ERA task-force based in Poland was re-enforced and supported by the appointment of a regulatory assistant, a secretary and a full-time Polish Project Manager. Much of the consulting work, thereafter, to support the formation of the ERA was assigned to local consultants in Poland.

3.4 Polish Working Groups

It was proposed in the Inception Report that in order to have in depth discussion of the working papers by the interested Polish parties, it would be best to set up Working Groups. This was expected to ensure that issues related to the establishment of ERA receive either the agreement of the Polish officials or recommendations for their improvement. This concept received a positive response and a Ministerial Working Group of 38 members was established and met for the first time on 20 June, 1996. It was formed of representatives of the relevant ministries, the energy enterprises and consumers.

From this Working Group, 4 Sub-Working Groups were created - on Licenses, Pricing, ERA Organization and Procedures. In addition to considering working papers and licenses prepared by the consulting teams, the Sub-Working Groups were expected to agree future work programs.

3.5 Polish Steering Committee

Appointment of a Steering Committee was proposed to monitor the implementation of the project, and to make decisions on the progress of the work, and endorse the decisions of the Working Groups. Unfortunately, the idea of forming a Steering Committee was not accepted by the Ministry until late in the process. Instead, the Ministry decided that it would appoint a plenipotentiary who would be responsible for all activities connected to the establishment of ERA. The concept of a plenipotentiary was never implemented, however, but an Inter-Ministerial Steering Group was finally formed in the summer of 1996 but it never actually met. It was to be chaired by the Ministry of Industry and Trade (MoIT) and comprise top management representatives of the Anti-Monopoly Office (AMO), the Ministry of Physical Planning and Construction (MPPC), the Ministry of Finance and the Convent of Voivods. In the end, the President of ERA was appointed in June 1997 and he took over responsibility for formation of the ERA.

4

Revised Approach to Project Implementation

Working papers were provided in March, 1996 by the KEMA-ECC consultants on the form and content of draft licenses for electricity, gas, oil and heat; on the ERA organization; for training of ERA staff and on Government's roles once the ERA was formed. This highlighted the urgent need for appointing the Polish Working Groups to assist the process. During the summer of 1996, the Working Groups met with the ERA Task Force in order to discuss and present an opinion on the working papers prepared by the consultants. The conclusions of the Working Groups were that the consultants should take greater account of the Polish conditions and include alternative and concrete solutions and recommendations to the various regulatory options. This would have required much more work by the consultants in preparing the licenses and developing price methodologies than originally anticipated in the budget.

A meeting was held in September 1996 with the participation of the ESMAP project management and representatives of the Ministry of Industry and Trade. It sought to clarify future priorities and refocus the work. In this connection it became increasingly clear that the ERA task-force based in Poland needed to be re-inforced. This led to agreement with the Ministry on the appointment of a full-time Polish Project Manager.

Subsequently, in December 1996 a follow-up meeting was held to present the new project management team and discuss a redesigned project where daily management was agreed to be carried out in Warsaw rather than in Washington. The work of the foreign consulting team was brought to a close in December 1996, and agreement with the MoIT was reached on specific tasks which ESMAP would finance that would be carried out under the supervision of the reinforced ERA task force in Poland. A revised Work Plan for supporting the establishment of the ERA was drafted and agreed with the Ministry. The priorities were directed first at preparing the organizational structure, budget and procedures of ERA and then drafting licenses in a later, second stage. This approach was confirmed with the new director of the Department of Energy and Environment of the newly established Ministry of Economy.

5

Project Implementation

As a result of the changes described above, the project was implemented in two stages: The first period from November 1995 till December 1996 - when most of the work was prepared by international consultants and reviewed with the Polish working groups. This comprised a general analysis of the regulatory options and international experience. It took place in parallel with work by ERG on the draft Energy Law, but due to the delay in the enactment of the Law was not able to be finalized.

The second period lasted from January 1997 till February 1998 and focused on the preparation of concrete proposals required to establish the ERA and on its organization, budget and staffing. The adoption of the Energy Law in April 1997, the subsequent appointment of the ERA President in June 1997, the establishment of the ERA Office in December 1997 and the approval of the state budget for ERA in January 1998 enabled the ERA to be set up successfully. A complete list of the working papers and reports prepared under the Project is given in Annex A. The work programs and status reports prepared during implementation of the Project are listed in Annex B. The dates of ESMAP missions and seminars and workshops are shown in Annexes C and D, respectively.

5.1 Organization of the Energy Regulatory Authority

The Energy Law determined that Energy Regulatory Authority (ERA) would be established as a central State administrative organ, managed by a President appointed and removed by the President of Council of Ministers. The President was appointed for a fixed term of 5-years and could only be removed from office in exceptional circumstances. The concept of a consultative body was developed, comprising seven members appointed for 5-year terms by the Prime Minister from a list of candidates submitted by organizations representing the energy sector and consumer interests. The ERA is responsible to act in accordance with the Government's energy policy and must seek to balance the interests of enterprises and consumers and to develop competition. The Energy Law defines the main responsibilities of the ERA as:

- licensing

- price control
- development control for gas and electricity
- control of customer service standards for gas and electricity
- disputes settlements
- monitoring compliance by imposing fines
- cooperate with other institutions in counteracting monopolistic abuses
- publishing and gathering information related to energy efficiency, energy economy, a yearly report and a bulletin
- qualification control.

ERA can decide on supply disputes in the first instance but its decision can be appealed before a special civil court - the Anti-Monopoly Court. Transparency is ensured by a requirement for ERA to publish its decisions on the granting of licenses and settlement of disputes.

A variety of materials and lectures were prepared during the project to inform about the organization of regulatory authorities in other countries. For example, the Norwegian electricity regulator informed Polish participants about the relationship between national and local institutions in the Norwegian electricity sector and subsequently their relevance to the Polish concept and process. Papers on the Norwegian system by Jan Moen and on the Danish systems by Anita Ronne were translated into Polish and distributed. In addition, representatives from the British and Spanish regulatory offices visited Poland to describe the structures and functioning of these public bodies and to pass on their experience from the first years of operation. Close contact was also established with the Dutch regulator.

In addition, the ESMAP team in Warsaw compiled a long list of existing regulatory authorities world-wide and received a comprehensive collection of material describing the various regimes. In order to present an overview of the different solutions to a wider forum, a review of the "Organizational Structures of Energy Regulatory Offices" in other countries was carried out. The description of each authority included an organizational chart, a brief description of the organizational units and the tasks of the legal framework and the historical background, as well as yearly budgets and employment levels where data was available.

A first Working Paper on "Organization of the Energy Regulatory Authority in Poland" addressed the functions and relationships of the Energy Regulatory Authority (ERA), and existing codes with which it must comply. It took as its starting point the draft Energy Law of 8 August 1995, and the general Administrative Procedure Code as a guide to the way in which ERA must reach decisions, record and communicate them. It was recognized that the functions of ERA are likely to change over time. The analysis was divided between initial functions, transition functions, and ongoing functions and

provided a list of the main tasks together with an indication of the ERA department which would be responsible. The options for the organizational structure were described and it was suggested that an organization be established primarily based on functions which were shown in a chart on the proposed organization of ERA. Staff requirements were considered, but no precise number of staff and mix of skills was proposed. It assumed that a recruitment policy for ERA staff and job profiles would be developed later in the project.

During the second part of the project more concrete and practical proposals were developed for creation of the ERA. The main part of the work was commissioned to different Polish independent consultants reporting to the ESMAP Task Force. Their working papers suggested different organizational models which were discussed in workshops and served as a basis for further work on preparation of the final proposal for the organizational structure of ERA "Office Plan 1998-2000".

The Working Papers were based on tasks directly sought by the new Energy Law and those regarded as necessary for the proper operation of the ERA office. They included several variants of the organizational structure of ERA and the tools needed for creating it. Consideration was given to the relationship between the headquarters of ERA and regional branches of ERA, the core departments and offices and tasks allocated to the specific units. An estimate of the human resources requirements was also prepared. The output comprised a draft statute of ERA.

The final proposal for the organizational structure of ERA was based upon the requirements of the Energy Law and the Secondary Legislation (the Statute of 15 October 1997) and was composed of 12 units - the Cabinet of the President, the Secretariat of the Director General and 10 departments.

The objective of the final proposal for the "Office Plan 1998-2000" was to provide the ERA staff with an understanding of ERA's core objectives and its key priorities for the first three years of operations. Furthermore the plan provided a basis against which the ERA performance during the first three years could be monitored. The office plan was formulated on the assumption that 105 staff would be recruited by the end of 1998 growing to a total of 139 by year 2000 (excluding regional offices). The detailed tasks and activities and the expected number of employees were set out for each individual department and office in the plan.

ERA was formally established on the 4 December 1997 when the Energy Law came into force. No significant changes were made to ESMAP's proposals for the office structure. By January 10, 1998, 15 people had been appointed, including the President, the General Director and Directors of several departments (License, Tariff, Public Relation, Finance and Administration and Foreign Affairs).

5.1.1 Statute of ERA

Work was carried out under the ESMAP project on the preparation of a Statute for the ERA to establish its organizational structure. A draft of the ERA Statute prepared in

accordance with legal practice of the Polish Central Administration was submitted to the Ministry of Economy in April 1997. The ordinance was adopted on 15 October, 1997. It established the management organization of the ERA, and approved a list of 12 departments for the regulator's office. These were based on a functional structure and vested various powers with the President to facilitate the decision process. It is expected that further regulations regarding the internal organization, the regional offices, and duties of each of the different departments will be issued by the ERA President. A proposal for rules on the functioning of the office was prepared by ESMAP and submitted to the President in July 1997.

5.1.2 Budget of ERA

A draft budget was prepared for the ERA in March 1997, based on the regulations applicable to all government agencies. The draft budget included a financial model which presented various simulations assuming different organization structures, levels of employment and wages schemes. Since the basis for calculation of salaries was not finally determined, several different schemes were developed using existing salary structures of similar government agencies and the power industry sector.

The newly appointed regulator prepared a budget proposal based on the work of ESMAP. It sought PZL 27.3 millions and was sufficient to cover initial hiring of staff. It was approved by Parliament by the end of January 1998. Funding for the ERA is now a separate item in the regular State budget

5.1.3 Remuneration of ERA staff

The ESMAP project prepared a proposal for the levels of salaries of the ERA staff taking into consideration the Energy Law which stipulated that the salary levels in the energy sector should be taken into consideration. The Energy Law required that remuneration of ERA staff be set out in an Ordinance. Following the preparatory work which was submitted to the Government by the ESMAP team in July 1997, the ordinance was adopted on 15 October, 1997.

5.1.4 Calculation and Collection of License Fees

Under the Energy Law, all licensees must pay annual fees which cannot exceed the costs of regulation. It was assumed that the costs would reflect the operating costs of the ERA. The project included a proposal for the required ordinance on license fees and following the normal procedure of consultation among the central administrative bodies, a final version of the ordinance was prepared for adoption.

5.2 Licenses

A central element of the Energy Law was the establishment of a licensing system. The main principle required all energy supply activities (except minor activities) to be licensed by the ERA. The law set some minimum requirements for issue of licenses. Decisions on issue of licenses must consider social interests and the State Energy Policy

guidelines. Existing energy enterprises were deemed to be licensed and permitted to continue their operations, provided they meet the conditions in the Law.

The work connected to the preparation of draft licenses for gas and power companies was carried out in two stages. The purpose of the first phase was to provide the legal framework for the licenses, and to transfer international experience in licensing, including recent developments in the European Union. It presented a first proposal for the topics to be covered either in the license itself or in alternative regulatory instruments (secondary legislation). The second part of the work focused partly on the further development of the scope of licensing and on the preparation of a specific license type - initially the license applying to the electricity distribution companies and subsequently the gas distribution license - in a form which could serve as a sample for the staff of the ERA.

Although each activity within the power, gas and heat sector had its own peculiarities which required specific and different licenses, there were common legal conditions and standard terms that applied to all types of licenses. However, with respect to the operation of the market it was necessary to have ready the basic design of price regulation and the future market structure of each respective sector. The first stage of the work was complicated because no license condition could be contradictory to provisions of the primary and secondary law. Neither the timing, the final format of the market development nor the final provisions of the draft Energy Law or the secondary legislation were agreed. Also, in the second phase of the project, the work could not be completed as the preparation of secondary legislation on economic conditions and access to the grid were delayed and the related commercial arrangements had not been finally agreed.

In order to determine the format for Polish licenses, an official legal opinion was requested from the McKenna Law firm in Warsaw. The legal opinion was received in July 1996 based on a list of questions as to the legal power of ERA and the issues that could be covered by a license. The conclusions reached were that under the Energy Law, ERA could not issue generally binding regulations. Under the law as drafted, ERA can issue licenses, and has significant discretion in defining the specific conditions that would be binding. In addition, ERA can issue non-binding guidelines.

A license structure based on the draft Energy Law dated 8 August 1995 was proposed in Working Papers of March 1996 for the electricity, gas and oil sectors and subject to a discussion in June 1996. The work reflected Poland's commitment to integration with European Union structures, and its signature of the European Energy Charter. However, the drafting process was complicated by the fact that at the time of drafting, the future structure and commercial arrangements of the Polish energy industry had not been agreed by the Polish Government. As licenses should reflect the intended industry structure and commercial arrangements, but be independent of ownership decisions, the work was therefore based on the policy objectives as outlined in the Policy Guidelines, the Assessment Visit and a review of the Coopers and Lybrand Report "Bulk Power Purchase Contracting in a Competitive Market" dated March 1994.

Based on this material it was concluded that five types of licenses had to be elaborated for the electricity sector:

- Generation License
- Transmission License
- Wholesale License authorizing wholesale purchase and sale of electricity
- Distribution License and
- Public Supply License authorizing retail sale of electricity.

For the gas sector, three types of licenses had to be prepared as gas production and underground gas storage is licensed under the Mining & Geological Law and gas imports under the Economic Activity Act:

- transmission
- distribution and
- trading.

The activities in the oil sector which have the characteristics of a network and therefore need to be regulated are:

- oil products pipelines
- oil import and
- storage terminals

Outline Licenses for each of the business to be licensed were prepared and are divided into General and Specific Conditions (applying to all Licenses and separate activities, respectively).

As a second step, a Working Paper summarizing the “Licensing of Energy Enterprises Activities” was prepared in May 1997. It compiles general knowledge of the licensing framework, a draft sample of a license application, a draft sample of an electricity distribution license and a draft list of entities potentially required to obtain licenses under the Polish Energy Law.

In October 1997, a new report on licensing was completed, elaborating upon the scope of licensing under Polish Law. A legal interpretation of the license terms determined by the Energy law and the conditions for obtaining the license are presented and a review of licenses required by other acts is also carried out. Finally, focus is put more specifically on the composition of an electricity distribution license. This work should provide the necessary basis for ERA to prepare the final drafting of licenses. Pursuant to the Energy Law, licenses to existing energy enterprises cannot be granted until 4 June 1999.

5.3 Secondary Legislation

The duties of the ERA are first of all determined by the Energy Law. Then, the secondary legislation which supports the law, influences the discretion of the regulatory authorities. A list of the secondary legislation is included in Annex E. A separate project, funded by the EU PHARE Program, has assisted the Polish Government with the more detailed development of these ordinances. Although the terms of reference were prepared in 1995, and the consultants - a consortium of the Polish Energy Management and Conservation Agency (EM&CA) and the International Institute of Energy Law of Leiden, Netherlands were selected in early 1996, it was not until October 1996 a contract for the project was signed. Drafts of the secondary legislation were submitted to the Ministry of Economy during the summer of 1997, but the Department of Energy and Environment decided that substantially changes were necessary. Consequently, a task force of experts composed of the department and energy sector specialists including some of the former ERG experts was established. During this process the secondary legislation related to ERA was transferred to this body for completion, assisted by the ESMAP project. Three pieces of secondary legislation have subsequently been adopted:

- Ordinance on the Statute of ERA
- Ordinance on Remuneration of the ERA staff and
- Ordinance on the Consultative Council.

A fourth ordinance on the License Fees is also ready for final adoption.

5.4 Energy Price Regulation

The Energy Law stipulates that all licensed activities will be subject to price control by the regulator, but the ERA can exempt an energy enterprise from price regulation if a competitive market exists. Pursuant to the law, a regulated company should obtain sufficient revenues to cover the justified cost of operations, allocations for maintenance and environmental protection. The method of price regulation is supposed to be determined in the secondary legislation. It is anticipated that it will permit a fair return on investment. In the meantime, the Minister of Finance will set retail prices and the Minister of Economy will set wholesale prices for the next two years for gas, electricity and heat.

The work on the development of pricing methodologies was initiated in 1996, but was put on hold due to the lack of agreed principles in the detailed legal framework (the secondary legislation). Seminars and a Working Paper "Energy Price Regulation in Poland" were developed in June 1996 and focused on key issues that could arise when considering energy pricing from a regulatory perspective. It aimed at identifying "good" pricing practices and price regulation, and covered the main methodologies available to regulate prices. The Working Paper set out a list of criteria by which regulatory regimes could be compared and assessed. Moreover, the general approach to price regulation was

described, including a discussion of the revenue requirements and its components. Different systems of regulation were compared, looking in particular at the costs of service and incentive regulation.

The Working Paper outlined a proposed structure of how the regulation of the gas and electricity prices might proceed, depending on the structure proposed for the industry, and in particular the corporate and trading structure.

In July 1997, a review of "Price Regulation of Energy Enterprises World-Wide" was prepared based on the comprehensive material gathered by the ESMAP team in Warsaw. The purpose of the paper was to provide an overview of the price regulatory issues through a general review of existing methods of price regulation, and more specifically by describing the historical background of price regulation in Great Britain and the present price regulatory system in the British energy sector. In addition, an outline of the price setting methodology adopted in Argentina and Mexico was included.

5.5 The Impact of Heat Regulation on Electricity and Gas Regulation

Under an early draft of the Energy Law (8 August 1995), the responsibility for energy policy was divided between two ministries: the Ministry of Industry and Trade (MoIT) for electricity and gas and the Ministry of Physical Planning and Construction (MPPC) for heat. Economic regulation of heat was also separated from the electricity and gas regulation. The ERA was to regulate the electricity and gas business, and the heat industry was to be subject to regulation at local level by the counties (Voivods). ERA and the Voivods were to be responsible for issuing licenses, agreeing sectoral plans and for approving tariffs. This concept required explicit consideration of CHP plants for electricity planning purposes and a central-local regulatory interface to ensure that the regulation of electricity and gas sectors by ERA would be consistent with the local regulation of heat companies by the Voivods and with the development of local energy markets.

The Working Paper "The Impact of Heat Regulation on Electricity and Gas Regulation" of 1 March 1996 examined these issues and with respect to the interface between MoIT and MPPC, it recommended that the two ministries be merged or MoIT given the overall responsibility. Similar recommendations were given with respect to the interface between the ERA and the Voivods so that ERA would be given overall responsibility for approving tariffs and development plans in the heat sector, but devolving powers of implementation to the Voivods.

Subsequent legal changes simplified the process of developing consistent energy policy and regulatory coordination for all energy sectors. Thus MoIT and MPPC were merged within a single Ministry of Economy and heat regulation gathered under the responsibility of ERA. However, coordination of efforts was still required under the final Energy Law with respect to investment planning. Electricity and gas enterprises were thus required to prepare detailed development plans for their sectors and agree these with

ERA. The communes were made responsible for planning heat supply within their regions subject to coordination by the Voivods.

5.6 Government Roles and Views

The absence of decisions on some fundamental policy issues were from the very start of the project a cause of major problems for the implementation of a functioning ERA, as well as for the ESMAP project. A Working Paper "The Establishment of an Energy Regulatory Authority in Poland: Government Roles and Views" of March 1996, demonstrated in a number of instances the need for the Government to make decisions on key topics.

In the context of the main documents available at the time: the draft Energy Law, the Energy Policy Guidelines of October 1995 and the Principles for the Secondary Legislation, the paper discussed the relationship of energy policy to regulation and attention was drawn to the following priority areas where decisions were needed if the reform program was to be successful:

- the definition of the "bright line" between energy policy and regulation with the appropriate, clear assignment of functions and responsibilities between the MoIT, other Ministries and the ERA;
- the specification of the market structure and commercial arrangements (including the transitional arrangements) in the gas and electricity industries;
- the proposed industrial and corporate restructuring (internal and external) of the generating and distribution companies for electricity and of PG& NG;
- clarification and resolution of the energy enterprises' development planning process and the regulation of investment in a consistent way;
- a proper specification of the price regulation procedures.

This Working Paper was followed by another "The Relationship between Energy Policy and Economic Regulation of the Energy Sector in Poland of 3 September 1996. This also discussed the relationship between energy policy and energy regulation in a market-oriented energy sector, but it included recommendations on specific action points for the Polish Government in order to provide a clear and effective policy framework within which ERA could become established and operate successfully as an independent regulatory agency.

5.7 ERA Procedures

Since the final secondary legislation or licenses had not been issued, it was premature to develop ERA procedures in any detail. Some work, however, was carried on the organization of the different departments. It was possible to identify the scope of information required by ERA from the regional electricity companies in a Working Paper.

5.8 Training Requirements

An initial Working Paper on training was presented in the spring of 1996 to develop a training program to be conducted by the USAID. The Working Paper specified where training requirements had already been identified and indicated a process for identifying other training needs. The paper considered the training requirements for different groups: the chairmen and members of the working groups, senior ERA staff, regulated industries and other groups like consumer representatives, the Anti-Monopoly Office, ministerial staff involved in energy policy, re-structuring and privatization and courts officials.

Subsequently, USAID organized seminars in October and December 1997 on various aspects of the regulatory process that were important to the process of developing the regulatory framework in Poland. Focus was put on experience and problems of electricity and gas markets and in implementing competitive and regulatory markets in Poland under the new Energy Law.

In addition members of the ESMAP task force in Poland and administrative officers from the Ministry of Economy participated in Seminars on Regulation organized by the World Bank and University of Florida in Gainesville, USA.

5.9 Expert Witness Papers

As the ERA project proceeded, it became apparent that there was a lack of a clear specification of the intended long-run market and commercial structure of the electricity and gas sectors - particularly of the gas sector. The absence of agreement on some other key policy issues became of crucial importance for the implementation of a functioning ERA and also for the separate PHARE-financed project to draft secondary legislation. Consequently, it was decided to address some of the main issues through "Expert Witness Papers".

5.9.1 Commercial Arrangements in the Polish Power Sector

The Polish power sector has already been unbundled with generation separated from transmission and distribution. There are about 35 Polish generators selling virtually all their output to PSE, which then acts as a bulk supplier to some 33 regional distributors and large consumers. The purpose of the Expert Witness Paper on "Commercial Arrangements in the Polish Power Sector" of 3 September 1996, was to identify a number of key areas in which it appeared that decisions remained to be made or work carried out, and where the outcome of these decisions or work would have an important bearing on the future work of ERA and hence on the project to establish ERA. The paper was addressed to the Polish Steering Committee and based on PSE's proposals and the document "Demonopolization and Privatization of the Polish Power Sector" by the MoIT, April 1996.

The key areas for decision related to four main areas:

1) Trading Arrangements

A pool concept will play an important role in the Polish electricity sector and the institutional framework for the operation of the pool will be a key factor in taking forward the design and implementation of the wholesale market in Poland. It was stressed that ERA's continuing relationship with respect to the pool must be resolved as this will have a major influence on licenses and ERA's organization and staffing, and the possible roles that ERA might adopt.

2) Structure and Ownership of the Generation Market

No firm program for transferring government ownership of virtually all generating capacity to the private sector has been agreed, although this ownership issue has important implications for the nature of the proposed competitive power market and therefore the development of an effective regulatory framework by ERA. Also the question as to what role, if any, the Anti-Monopoly Office should play in the development of competition needs to be addressed as this has implications for ERA's role.

3) Transmission Services

A significant amount of work is required to ensure an appropriate service and pricing structure is put in place, and ERA will have prime responsibility for regulating transmission services and ensuring that this need is met.

4) Distribution and Supply Issues

The timetable for the introduction of competition in the supply market has yet to be determined and its introduction poses many technical difficulties. This issue has serious implications for the design of the trading arrangements and the responsibilities and workload of ERA. ERA will also have to address the terms on which distributors allow large consumers access to the distribution system for delivering their power by establishing some form of separation between the distribution and supply business of distributors. Different options are outlined for ERA to monitor and ensure the necessary separation so as to avoid possible discrimination against potential competitors.

5.9.2 Market Structure & Commercial Arrangements for the Polish Gas Industry

An Expert Witness Paper was also drafted on "Market Structure & Commercial Arrangements for the Polish Gas Industry" in November 1996. The paper described the current position facing the Polish gas industry, and identified the long term goal for the industry. It recommended a course of action and finally identified some key policy questions which need to be addressed to put in place the appropriate industry structure. These policy decisions would map out a path and set a timetable for the restructuring of the gas industry. Ensuring that the path is followed and the timetable is met, while balancing the interests of all parties, is a regulatory function - and therefore the responsibility of ERA.

5.9.3 The Impact of EU Legal Requirements on the Establishment of ERA and on the Proposed Structure of the Polish Energy Sector

It was found necessary to analyze the Impact of EU Legal Requirements on the Establishment of ERA and on the Proposed Structure of the Polish Energy Sector and consequently an Expert Witness Paper was developed on this aspect.

Overall the paper dealt with the present Polish legislation on energy, the proposed legislation and their consistency with EU-laws. In particular, the paper put forward a series of recommendations on how Poland would best be able to fulfill the requirements and obligations imposed by community law (The Poland Europe Agreement). The main conclusions in relation to the establishment of the ERA were that at present there are no conflicts between the obligations of Poland under the relevant EU laws and the proposed role, duties and jurisdiction of the ERA as set out in the new Energy Law and proposed secondary national legislation. However, the directives on price transparency, transit of electricity and the transit of gas, will all impose certain obligations on Poland, and it was recommended that these should be delegated to the ERA.

It is emphasized also that the Energy Charter Treaty and the Electricity Liberalization Directive, would impose obligations on Poland, and it is proposed that these be carried out by the ERA. In this context there is a need for the consideration of the suitability of the dates for the introduction of competition and whether or not to impose public service obligations, and if it is decided to do so, by what legal means. In relation to the gas industry, the Polish Government need to consider whether it will be willing to accept the type of restructuring of the gas industry which is likely to be required.

The paper highlighted the fact that the new Polish Energy Law provides for foreign trade in fuels and energy to be licensed by the Ministries of Foreign Economic Co-Operation and Industry and Trade (now Ministry of Economy). This would not be compatible with either the EC-Treaty law, or the proposals of the Electricity Liberalization Directive.

6

Reform Status

6.1 Central Administrative Reform

During June 1996, the Polish Parliament adopted a reform of the central governmental ministries which became effective from January 1, 1997. The reform involved 12 different Acts and the abolishment of several ministries: Ministry of Industry and Trade, Ministry of Physical Planning and Construction, Ministry of Foreign Economic Relations, Ministry of Ownership Transformation and the Central Planning Office. The new structure involved the establishment of 4 new ministries:

- Ministry of State Treasury,
- Ministry of Privatization,
- Ministry of Economy and
- Ministry of Public Administration and Housing.

In addition, a new Committee for European Integration, a Chancellery of the Chairman of the Council of Ministers (replacing Office of the Council of Ministers) and a Center for Strategic Studies were also formed.

Execution of energy policy became the responsibility of the new Ministry of Economy. PSE, PG & NG and the electricity generation and distribution companies will (until privatized), however, be owned by the Ministry of the State Treasury who will also appoint a Supervisory Board.

6.2 Energy Policy Guidelines

On 17 October 1995 a document called "Energy Policy Guidelines for Poland until 2010" was approved by the Government and on 11 January 1996, the Polish Parliament (Sejm) adopted a resolution, supporting the implementation of these Policy Guidelines. The Guidelines supplement the policy document "Strategy for Poland" as well as "Program of Industrial Policy" prepared by the Ministry of Industry and Trade and accepted by the Government on 16 May 1995.

The Energy Policy Guidelines included an assessment of the energy security of Poland and the main aims of Poland's energy policy. The goals are summarized below:

- increased diversification in the supply pattern
- maintenance of domestic hard coal production at a level which ensures profitability of mines without state subsidies and meets environmental protection requirements,
- increased indigenous production and import of gas and construction of new gas storage facilities and pipelines,
- increased productivity of energy enterprises
- improved efficiency in energy consumption and
- reduction of environmental pollution.

The Guidelines also provided a list of instruments and an action plan for the implementation of the agreed energy policy. The general strategy involved the improvement of regulatory functions by gradually limiting state ownership functions only to strategic issues and regulation to sectors that had a monopolistic character. Furthermore prices will be based on real costs and energy costs will be minimized through introduction of competition.

Under the guidelines, prices were expected to cover justified costs including profits from invested capital at levels comparable to that being obtained in other infrastructure sectors. Cross-subsidies would be abolished. Following the commercialization of all energy enterprises, a process of privatization is to be implemented. The State, however, will keep a full or controlling interest (i) in coal mines, (ii) in the Power Transmission Grid Company, (iii) in upstream oil and gas enterprises as well as, (iv) transmission and wholesale distribution of gas; and (v) in the liquid fuel sector.

6.3 Energy Law

The adoption of the new Energy Law of 10 April 1997, marked a significant stage in the reform of the Polish energy. It was a major step forward in the creation of an economic and stable market which should promote efficient energy production, transmission, and supply, attract sector investors and protect end-use consumers. Preparation of secondary legislation, licenses and the design of economic regulation were, however, crucial pieces of the legal framework that have been still left for final decision. The Energy Law was published on the 4th of June 1997 and entered into force on the 4th of December 1997. From this latter date, a schedule of transition steps commenced for preparation of the secondary legislation, issue of licenses, establishment of regulated prices and open grid access. A list of the key dates for each of these steps is given in Annex F.

The Energy Law covers the production, transport, distribution, trade, use and conservation of electricity, oil, gas and heat energies. It does not cover the exploitation of natural resources (Geological and Mining Law) and nuclear energy (Atomic Law). In fact, the Energy Law contains only the main principles for energy regulation. It defines the responsible administrative bodies, the tasks to be undertaken by the different players within the energy sector and the objectives to be taken into consideration in this respect. The Law neither prefers nor discriminates against various forms of ownership. The more detailed regulation of operations for the different energy sectors will be issued in the form of common secondary legislation applying to all licensed facilities.

The Energy Law is intended to assure energy security of the State, sustainable and efficient use of energy and fuels. It also is aimed at increasing competition to reduce costs and increase operational efficiency of energy enterprises. The Law was specifically designed for customers connected to grid supply of energy or fuel. A key objective is to ensure a proper balance between the interests of the consumers and the energy enterprises in order to provide consumers with reliable and high quality of supply.

The Energy Law requires the issuance of more than 25 decrees to clarify further the powers and duties of the different actors. Previous work on the preparation of the assumptions for the secondary legislation revealed that there are still several important questions concerning the different options for regulation of the Polish energy sector that are unanswered. Although the full regulatory regime was not completed, it is beyond doubt that Poland has reached an important crossroad by adopting the new Energy Law.

6.4 Structure of the Industry

Electricity Sector

The Electricity sector was the first energy sector to be unbundled in Poland. The most important step towards this new structure was made in 1990 when the Polish Grid Company (PSE) was established as a joint stock company. Generation is undertaken by 34 generation enterprises (20 conventional power stations and 14 CHP plants) and distribution by 33 companies.

The Government prepared and the Parliament adopted in 1993, the Law on "Ownership Transformation of Certain State Owned Companies of Special Significance to the National Economy", largely with the power sector in mind. Based upon this Law most State-owned enterprises in the sector (over 50) have been transformed into joint-stock companies. Less than twenty such companies are still awaiting transformation (12 large power stations and the brown-coal fired power stations which are linked technologically with brown coal mines.)

No further changes in the market or ownership structure have been made since 1993. In 1997, a few selected generation and distribution companies initiated pre-privatization studies, with the assistance of international consultants, to study and recommend a privatization strategy.

However, in 1995 and 1996, while a new draft energy law was under the consideration of the Parliament, the Council of Ministers issued two documents¹ that set forth the government's energy policy and plans to complete implementation of power sector reform. These documents do not mandate a specific restructuring and privatization program, but instead establish general principles and criteria. For market restructuring, the main guidelines are the following:

- There would be four basic activities subject to license: generation, transmission, distribution and trade (the latter refers to the purchase of energy in the wholesale power market by supply retail customers). Distribution companies would thus have to separate the "wires" business from commercial activities.
- Once the corporatization of the generating companies is completed, mergers of generation and distribution companies will be determined by the initiatives of individual enterprises reacting to market conditions and will be subject to regulatory constraints. The nine largest generating plants can merge only with smaller plants. The distribution companies can merge as they wish, subject to general constraints on market power.
- PSE will be responsible for expansion planning, development of the national transmission grid, the safety and reliability of the interconnected system, economic dispatch, and coordination of the wholesale electricity market. During a transition period, PSE will also be responsible for single-buyer functions. PSE would sell its controlling interest in pumped-storage plants at some future date.

Natural Gas Sector

The gas sector is dominated by the state-owned Polish Oil and Gas Company (PO&GC) which controls every operation from exploration to consumer sales (i.e. exploration, production, import, exports, storage, transportation, distribution, pipeline planning and construction) and employs around 40,000 staff. Restructuring and privatization of the company was planned, but has been delayed due to lack of political agreement on the restructuring and privatization program.

The World Bank prepared a report on the Polish gas industry "Gas Sector Policy Report" which was passed to the Polish Government in December 1995. It assessed the

¹ "Energy Policy Guidelines for Poland until 2010," October 1995 and "Demonopolization and Privatization of the Electric Power Sector," September, 1996.

problems of the oil and gas sector in Poland, made recommendations for restructuring and set a timetable for some of the reforms.

The restructuring process adopted was based on the 1994 Anti-Monopoly Office (AMO) proposals that the company separate out 12 ancillary companies in 4 phases:

- (i) establishing of a joint-stock company
- (ii) spinning off ancillaries in 1997
- (iii) establishing a holding company with two subsidiaries for upstream (Polish Oil Company S.A.) and downstream activities (Polish Gas Company S.A.) in 1999, and subsequently
- (iv) establishing separate downstream companies for transmission and distribution.

PO&GC was transformed into a joint stock company owned by the State in October 1996 and the first stage of PO&GC restructuring was thus completed. The process was implemented by the Ministry of Ownership Transformation - now Ministry of Treasury. The process of privatization commenced in 1996 with two companies Gazoprojekt, an engineering and consulting company (75% shares to PG&NG and 25% shares to employees) and Gazomontaz for pipeline building (50.5% shares to PG&NG and 49.5 % shares to employees). The second stage has, however, not yet been completed and the deadline was thus not met. It is assumed that this stage will concluded in 1998.

7

Conclusions

Most of the objectives of the ESMAP project were met. The adoption of the new Energy Law in April 1997 was the first and necessary milestone that was reached in order to implement the project for establishing the ERA. The next important step was the appointment of the President of ERA in June 1997. The energy reform process in Poland has been long under way, but the ESMAP project achieved its purpose when the ERA was established in December 1997. Further assistance is still required to develop detailed tariff setting rules and procedures, to help ERA develop regulatory expertise and assist the Government in completing the energy sector restructuring program.

A new project which may be sponsored by USAID has been identified with the objective of creating an efficient management information system for ERA. The first stage which has been agreed would provide, a conceptual plan. This provided a basic concept of the Management Information System and a technical specification of hardware and software needed.

Annex A: List of Working Papers Produced under This Project

Organization of the Energy Regulatory Authority

1. Organization of the Energy Regulatory Authority in Poland: 3. June 1996 (1st ed. March 1996) (KEMA-NERA)
2. Tasks & Duties of Organizational Units of ERA, January 1997 (in Polish)(USAID Polish consultant M. Grzybowski & ESMAP Polish consultant Mr. T. Czop)
3. Organizational Structure of ERA, February 1997, (Polish consultants - Mr. B. Binczak & Mr. L. Kozłowski)
4. Review of Organizational Structures of Foreign Regulators, April 1997 (in Polish)(ESMAP Polish consultant Mr. T. Czop)
5. Internal Organizational Structure of the "Department of Development Plans Approval" of ERA, April 1997 (Polish consultant Mr. E. Hille)
6. The ERA Organization, April 1997 (Polish consultant - Mr. J. Popczyk)
7. The Energy Regulatory Authority - Organization, April 1997 (KEMA-NERA)
8. Department of Control of ERA, September 1997 (Polish consultant Ms. I. Figaszewska)
9. Functions, Tasks and Organization of License Department of the ERA - 15 December 1997 (Polish consultant Prof. Fornalczyk)
10. ERA Office Plan 1998-2000 - February 1998, (English consultants - Mr. C. Lean & D. Cook)

Statute of ERA

11. Preparation of proposal for ERA Statute (Polish consultant Ms. Iwanowska)

Budget of ERA

12. Draft Budget of the Energy Regulatory Agency - March 1997, (Polish consultants - Ms. M. Lachowska & Mr. P. Jagiello)

Remuneration of ERA Staff

13. Draft Ordinance on Remuneration of staff of ERA, July 1997 (Polish consultants Ms. Iwanowska)

Licenses

14. Outline Electricity Licenses, Overview Statement: March 1996 (KEMA-NERA)

- Outline Distribution License: 13. March 1996
- Outline Wholesale Traders License: 13. March 1996
- Outline Transmission License: 13. March 1996
- Outline Generation License: 13. March 1996
- Outline Public Electricity Supply License: 13. March 1996
- 15. Gas Sector Licenses: 7. March 1996 (KEMA-NERA)
 - Outline License for Gas Transmission
 - Outline License for Gas Distribution
 - Outline License for Gas Trading
- 16. Licenses for the Oil Sector: March 1996 (KEMA-NERA)
 - Outline License for Oil Product Pipelines
 - Outline License for Oil Product Storage
- 17. Review of Licensing of Energy Activities in Poland, May 1997(in Polish)(ESMAP Polish consultant Mr. T. Czop)
- 18. Licensing of the Regional Electricity Company under the Polish Energy Law, September 1997 (Polish consultant Mr. I. Muszynski)
- 19. License for the regional gas distribution company(Dutch consultants J. Bos, R.D. Visser & R. Nowak (comments of January 1998), Polish consultants Mr. A. Piwowarski, Winter & I. Muszynski)

License Fees

- 20. Principles of Calculation and Collection of Fees related to the Activities Licensed according to the Energy Law, December 1997 (Polish consultant Mr. P.Jagiello)

Energy Price Regulation

- 21. Energy Price Regulation in Poland: June 1996
- 22. Review of Price Regulation Worldwide, July 1997(in Polish)(ESMAP Polish consultant Mr. T. Czop)

The Impact of Heat Regulation on Electricity and Gas Regulation

- 23. The Impact of Heat Regulation on Electricity and Gas Regulation: 1. March 1996 (KEMA-NERA)

Government Roles and Views

- 24. Government Roles and Views: March 1996 (KEMA-NERA)

25. The Relationship between Energy Policy and Economic Regulation of the Energy Sector in Poland: 3. September 1996 (KEMA-NERA)

ERA Procedures

26. Identification of Information directly Exchanged between Regional Electricity Companies and other Entities or Governmental Bodies (Polish consultant Mr. A. Pawlega)

Training Requirements

27. Training Requirements: June 1996 (1st ed. March 1996) (KEMA-NERA)

Expert Witness Papers

28. Commercial Arrangements in the Polish Power Sector: 3. September 1996 (KEMA-NERA)
29. Review of the Wholesale Power Market Rules (Spanish consultants Mr. Gomez & Mr. Rivier)
30. Market Structure & Commercial Arrangements for the Polish Gas Industry: November 1996 (KEMA-NERA)
31. The Impact of EU Legal Requirements on the Establishment of the ERA and on the Proposed Structure of the Polish Energy Sector: August 1996 with amendments of 25. October 1996 (Denton Hall)

Other Major Working Papers of ERA Taskforce in Warsaw

32. Requirements and Procedures for Passing New Legislation - Primary and Secondary (January 1996) (Anita Rønne)
33. The administrative Procedure Rules which Apply to ERA Decisions (January 1996) (Anita Rønne)
34. The Scandinavian Model for Regulation of Network Bound Energy (February 1996) (Anita Rønne)
35. The Danish Independent Regulators for Network Bound Energy (April, 1996) (Anita Rønne)
36. Technical Regulation (July 1996) (Anita Rønne)

Annex B: Work Programs and Status Reports

1. Poland, Establishing the Energy Regulatory Agency Work Program - ESMAP, 10. May 1995
2. Proposal for Establishing the Energy Regulatory Authority in Poland, KEMA-ECC, August 1995
3. Establishment of an Energy Regulatory Authority in Poland - Inception Report - KEMA-ECC, December 1995.
4. Poland - Supporting Energy Sector Reform - ESMAP, January 1996
5. Activity Initiation Brief - ESMAP, July 1996
6. Revised Work Plan, 27. September 1996
7. Revised Work Plan for ESMAP Project, January 1997

Annex C: ESMAP Missions

1. Kick Off Meeting: 16.-19. October 1995
2. Inception Review Mission: 13.-17. November 1995
3. Assessment Visit (License, Organization): 25. January - 1. February 1996
4. Assessment Visit (Price Regulation): 13.-17. May 1996
5. Project Assessment Visit: 20.-24. May 1996
6. First Milestone Week - 24.-28. June 1996
7. Supervision Mission: 18.-27. September 1996
8. Supervision Mission: 6.-10. December 1996
9. Supervision Mission: 14. February 1997
10. Supervision Mission: September 1997
11. Project Review Mission: December, 1997
12. Completion Mission: February, 1998

Annex D: Seminars and Workshops

1. Project Methodology for Establishing ERA and Recent Development in the European Union and Internationally (31. January 1996)
2. Round Table: a) Current status of the project, priorities and implementation over the next few months. b) National and Local Regulation of Electricity Grids in Norway - Can the Norwegian Experience be Applied to other Sectors and Countries? (24. May 1996)
3. Workshop on Price Regulation (23. May 1996)
4. Implementing Energy Regulation in Poland: Concepts and Practices (sponsored by US AID) (21.-24 October 1996)
5. Economic Regulation (sponsored by US AID) (8.-11. December 1996)
6. Organization of ERA (18. February 1997)
7. Polish Gas Sector under the New E.L.; Regulation, Competition, Markets; Lessons from the USA (24-26 June 1997)
8. Seminar on Regulation organized by the World Bank and University of Florida in Gainesville, USA (June 1997 & January 1998)
9. Electricity Trading in the Netherlands (October 1997)
10. Energy Market Functioning: Experience and problems of electricity and gas markets/ Transitional issues of implementing competitive and regulatory markets in the electric and gas sectors in Poland under the new Energy Law, organized by MoE & USAID (15-16 December 1997)

Annex E: Secondary Legislation to the Energy Law in Poland

<i>Article</i>	<i>Subject</i>	<i>Responsible Body</i>
2.1.	Application of Law to defense, etc.	Council of Ministers
2.2.	Energy and fuel connection and supply to defense, etc.	Council of Ministers
6.3.	Inspection	Ministry of Economy = MOE
9.1.	Power connection, costs, trade, transmission, operation & quality standards	MOE
9.1.	Gas connection, costs, trade, transmission, operation & quality standards	MOE
9.1.	Heat connection, costs, trade, transmission, operation & quality standards	MOE
9.2.	Power development planning and financing	MOE
9.2.	Gas development planning of financing	MOE
9.3.	Solid & liquid fuels wholesale trade	MOE
9.4.	Power & heat purchase from unconventional sources	MOE
9.5.	Liquid fuels development planning, operation, financing & transmission	MOE in liaison with Min. of Transportation & Maritime Economy
10	Fuel reserves	MOE
11	Supply limitations	Council of Ministers
18	Budget for lighting	Min. of Finance
21.6.	ERA Statute	Chairman of Council of Ministers
26	Consultative Council members appointment and removal	Chairman of Council of Ministers
29.2.	Remuneration of ERA staff	Chairman of Council of Ministers

(continues ...)

Secondary Legislation to the Energy Law in Poland (*continued ...*)

<i>Article</i>	<i>Subject</i>	<i>Responsible Body</i>
26	Consultative Council members appointment and removal	Chairman of Council of Ministers
29.2.	Remuneration of ERA staff	Chairman of Council of Ministers
32.2.	No license required	MOE
34.3.	License fee	Council of Ministers
46	Power Tariff setting	MOE in liaison with Ministry of Finance and following ERA consultation
46	Gas Tariff setting	MOE in liaison with Ministry of Finance and following ERA consultation
46	Heat Tariff setting	MOE in liaison with Ministry of Finance and following ERA consultation
48	Lignite prices	MOE
52.4	Efficiency requirements for equipment	MOE
52.4	Labeling of equipment	MOE
54.6	Qualification requirements	MOE in liaison with Ministry of Transportation & Maritime Economy and Ministry of National Defense
55	Quality of fuels	MOE in liaison with appropriate Ministers
63	Way of financing ERA	Council of Ministers
65	Eight years transition for transmission	MOE
69.2	Shorter period for tariff control by Ministry of Finance	Council of Ministers

Annex F: Key Actions Following Enactment of the Energy Law

10 April 1997	Adoption of the Energy Law
4 June 1997	Publication of the Energy Law and enforcement of Art. 21 on ERA <ul style="list-style-type: none">• Ordinance on ERA Statute (Art. 21.4)
23 June 1997	Appointment of the President of ERA - Mr. Juchniewicz (for 5 years)
4 December 1997	The Energy Law enters into force (Art. 72) <ul style="list-style-type: none">• Appointment of Consultative Council for first 4 years (Art. 25 & 64)• Ordinance for appointment of Council members (Art. 26.4)• Ordinance on remuneration of ERA employees (Art. 29.2)• Ordinance on Financing ERA (Art. 63)• Abolishment of District Inspectorates (Art. 68)
31 March 1998	Submission of first report on ERA (Art. 24)
4 June 1998	Maximum period for enforcement of old secondary legislation <ul style="list-style-type: none">• Ordinance on setting transfer prices (Art. 46 & 69)
4 June 1999	Maximum period for granting licenses to existing energy enterprises
4 December 1999	Maximum period for Min. of Finance control of end prices (Art. 69)
4 December 1999	Maximum period for transferring installations (Art. 66)
31 December 1999	Maximum period for validity of old qualification certificates (Art. 70 & 54) <ul style="list-style-type: none">• Establishment of Qualification commissions
4 December 2005	Maximum transition period for obligation of rendering transmission services (Art. 65 & 4.2).

Joint UNDP/World Bank
ENERGY SECTOR MANAGEMENT ASSISTANCE PROGRAMME (ESMAP)

LIST OF REPORTS ON COMPLETED ACTIVITIES

<i>Region/Country</i>	<i>Activity/Report Title</i>	<i>Date</i>	<i>Number</i>
SUB-SAHARAN AFRICA (AFR)			
Africa Regional	Anglophone Africa Household Energy Workshop (English)	07/88	085/88
	Regional Power Seminar on Reducing Electric Power System Losses in Africa (English)	08/88	087/88
	Institutional Evaluation of EGL (English)	02/89	098/89
	Biomass Mapping Regional Workshops (English)	05/89	--
	Francophone Household Energy Workshop (French)	08/89	--
	Interafrican Electrical Engineering College: Proposals for Short- and Long-Term Development (English)	03/90	112/90
	Biomass Assessment and Mapping (English)	03/90	--
	Symposium on Power Sector Reform and Efficiency Improvement in Sub-Saharan Africa (English)	06/96	182/96
	Commercialization of Marginal Gas Fields (English)	12/97	201/97
Angola	Energy Assessment (English and Portuguese)	05/89	4708-ANG
	Power Rehabilitation and Technical Assistance (English)	10/91	142/91
Benin	Energy Assessment (English and French)	06/85	5222-BEN
Botswana	Energy Assessment (English)	09/84	4998-BT
	Pump Electrification Prefeasibility Study (English)	01/86	047/86
	Review of Electricity Service Connection Policy (English)	07/87	071/87
	Tuli Block Farms Electrification Study (English)	07/87	072/87
	Household Energy Issues Study (English)	02/88	--
	Urban Household Energy Strategy Study (English)	05/91	132/91
Burkina Faso	Energy Assessment (English and French)	01/86	5730-BUR
	Technical Assistance Program (English)	03/86	052/86
	Urban Household Energy Strategy Study (English and French)	06/91	134/91
Burundi	Energy Assessment (English)	06/82	3778-BU
	Petroleum Supply Management (English)	01/84	012/84
	Status Report (English and French)	02/84	011/84
	Presentation of Energy Projects for the Fourth Five-Year Plan (1983-1987) (English and French)	05/85	036/85
	Improved Charcoal Cookstove Strategy (English and French)	09/85	042/85
	Peat Utilization Project (English)	11/85	046/85
	Energy Assessment (English and French)	01/92	9215-BU
Cape Verde	Energy Assessment (English and Portuguese)	08/84	5073-CV
	Household Energy Strategy Study (English)	02/90	110/90
Central African Republic	Energy Assessment (French)	08/92	9898-CAR
Chad	Elements of Strategy for Urban Household Energy The Case of N'djamena (French)	12/93	160/94
Comoros	Energy Assessment (English and French)	01/88	7104-COM
Congo	Energy Assessment (English)	01/88	6420-COB
	Power Development Plan (English and French)	03/90	106/90
Côte d'Ivoire	Energy Assessment (English and French)	04/85	5250-IVC
	Improved Biomass Utilization (English and French)	04/87	069/87
	Power System Efficiency Study (English)	12/87	--
	Power Sector Efficiency Study (French)	02/92	140/91
	Project of Energy Efficiency in Buildings (English)	09/95	175/95

<i>Region/Country</i>	<i>Activity/Report Title</i>	<i>Date</i>	<i>Number</i>
Ethiopia	Energy Assessment (English)	07/84	4741-ET
	Power System Efficiency Study (English)	10/85	045/85
	Agricultural Residue Briquetting Pilot Project (English)	12/86	062/86
	Bagasse Study (English)	12/86	063/86
	Cooking Efficiency Project (English)	12/87	--
Gabon	Energy Assessment (English)	02/96	179/96
	Energy Assessment (English)	07/88	6915-GA
The Gambia	Energy Assessment (English)	11/83	4743-GM
	Solar Water Heating Retrofit Project (English)	02/85	030/85
	Solar Photovoltaic Applications (English)	03/85	032/85
Ghana	Petroleum Supply Management Assistance (English)	04/85	035/85
	Energy Assessment (English)	11/86	6234-GH
	Energy Rationalization in the Industrial Sector (English)	06/88	084/88
	Sawmill Residues Utilization Study (English)	11/88	074/87
Guinea	Industrial Energy Efficiency (English)	11/92	148/92
	Energy Assessment (English)	11/86	6137-GUI
	Household Energy Strategy (English and French)	01/94	163/94
Guinea-Bissau	Energy Assessment (English and Portuguese)	08/84	5083-GUB
	Recommended Technical Assistance Projects (English & Portuguese)	04/85	033/85
	Management Options for the Electric Power and Water Supply Subsectors (English)	02/90	100/90
	Power and Water Institutional Restructuring (French)	04/91	118/91
Kenya	Energy Assessment (English)	05/82	3800-KE
	Power System Efficiency Study (English)	03/84	014/84
	Status Report (English)	05/84	016/84
	Coal Conversion Action Plan (English)	02/87	--
	Solar Water Heating Study (English)	02/87	066/87
	Peri-Urban Woodfuel Development (English)	10/87	076/87
	Power Master Plan (English)	11/87	--
	Power Loss Reduction Study (English)	09/96	186/96
Lesotho	Energy Assessment (English)	01/84	4676-LSO
Liberia	Energy Assessment (English)	12/84	5279-LBR
	Recommended Technical Assistance Projects (English)	06/85	038/85
	Power System Efficiency Study (English)	12/87	081/87
Madagascar	Energy Assessment (English)	01/87	5700-MAG
	Power System Efficiency Study (English and French)	12/87	075/87
	Environmental Impact of Woodfuels (French)	10/95	176/95
Malawi	Energy Assessment (English)	08/82	3903-MAL
	Technical Assistance to Improve the Efficiency of Fuelwood Use in the Tobacco Industry (English)	11/83	009/83
	Status Report (English)	01/84	013/84
Mali	Energy Assessment (English and French)	11/91	8423-MLI
	Household Energy Strategy (English and French)	03/92	147/92
Islamic Republic of Mauritania	Energy Assessment (English and French)	04/85	5224-MAU
	Household Energy Strategy Study (English and French)	07/90	123/90
Mauritius	Energy Assessment (English)	12/81	3510-MAS
	Status Report (English)	10/83	008/83
	Power System Efficiency Audit (English)	05/87	070/87

<i>Region/Country</i>	<i>Activity/Report Title</i>	<i>Date</i>	<i>Number</i>
Mauritius	Bagasse Power Potential (English)	10/87	077/87
	Energy Sector Review (English)	12/94	3643-MAS
Mozambique	Energy Assessment (English)	01/87	6128-MOZ
	Household Electricity Utilization Study (English)	03/90	113/90
	Electricity Tariffs Study (English)	06/96	181/96
	Sample Survey of Low Voltage Electricity Customers	06/97	195/97
Namibia	Energy Assessment (English)	03/93	11320-NAM
Niger	Energy Assessment (French)	05/84	4642-NIR
	Status Report (English and French)	02/86	051/86
	Improved Stoves Project (English and French)	12/87	080/87
	Household Energy Conservation and Substitution (English and French)	01/88	082/88
Nigeria	Energy Assessment (English)	08/83	4440-UNI
	Energy Assessment (English)	07/93	11672-UNI
Rwanda	Energy Assessment (English)	06/82	3779-RW
	Status Report (English and French)	05/84	017/84
	Improved Charcoal Cookstove Strategy (English and French)	08/86	059/86
	Improved Charcoal Production Techniques (English and French)	02/87	065/87
	Energy Assessment (English and French)	07/91	8017-RW
	Commercialization of Improved Charcoal Stoves and Carbonization Techniques Mid-Term Progress Report (English and French)	12/91	141/91
SADC	SADC Regional Power Interconnection Study, Vols. I-IV (English)	12/93	--
SADCC	SADCC Regional Sector: Regional Capacity-Building Program for Energy Surveys and Policy Analysis (English)	11/91	--
Sao Tome and Principe	Energy Assessment (English)	10/85	5803-STP
Senegal	Energy Assessment (English)	07/83	4182-SE
	Status Report (English and French)	10/84	025/84
	Industrial Energy Conservation Study (English)	05/85	037/85
	Preparatory Assistance for Donor Meeting (English and French)	04/86	056/86
	Urban Household Energy Strategy (English)	02/89	096/89
	Industrial Energy Conservation Program (English)	05/94	165/94
Seychelles	Energy Assessment (English)	01/84	4693-SEY
	Electric Power System Efficiency Study (English)	08/84	021/84
Sierra Leone	Energy Assessment (English)	10/87	6597-SL
Somalia	Energy Assessment (English)	12/85	5796-SO
South Africa Republic of	Options for the Structure and Regulation of Natural Gas Industry (English)	05/95	172/95
Sudan	Management Assistance to the Ministry of Energy and Mining	05/83	003/83
	Energy Assessment (English)	07/83	4511-SU
	Power System Efficiency Study (English)	06/84	018/84
	Status Report (English)	11/84	026/84
	Wood Energy/Forestry Feasibility (English)	07/87	073/87
Swaziland	Energy Assessment (English)	02/87	6262-SW
	Household Energy Strategy Study	10/97	198/97
Tanzania	Energy Assessment (English)	11/84	4969-TA
	Peri-Urban Woodfuels Feasibility Study (English)	08/88	086/88
	Tobacco Curing Efficiency Study (English)	05/89	102/89
	Remote Sensing and Mapping of Woodlands (English)	06/90	--
	Industrial Energy Efficiency Technical Assistance (English)	08/90	122/90

<i>Region/Country</i>	<i>Activity/Report Title</i>	<i>Date</i>	<i>Number</i>
Tanzania	Power Loss Reduction Volume 1: Transmission and Distribution System Technical Loss Reduction and Network Development (English)	06/98	204A/98
	Power Loss Reduction Volume 2: Reduction of Non-Technical Losses (English)	06/98	204B/98
Togo	Energy Assessment (English)	06/85	5221-TO
	Wood Recovery in the Nangbeto Lake (English and French)	04/86	055/86
	Power Efficiency Improvement (English and French)	12/87	078/87
Uganda	Energy Assessment (English)	07/83	4453-UG
	Status Report (English)	08/84	020/84
	Institutional Review of the Energy Sector (English)	01/85	029/85
	Energy Efficiency in Tobacco Curing Industry (English)	02/86	049/86
	Fuelwood/Forestry Feasibility Study (English)	03/86	053/86
	Power System Efficiency Study (English)	12/88	092/88
	Energy Efficiency Improvement in the Brick and Tile Industry (English)	02/89	097/89
	Tobacco Curing Pilot Project (English)	03/89	UNDP Terminal Report
	Energy Assessment (English)	12/96	193/96
Zaire	Energy Assessment (English)	05/86	5837-ZR
Zambia	Energy Assessment (English)	01/83	4110-ZA
	Status Report (English)	08/85	039/85
	Energy Sector Institutional Review (English)	11/86	060/86
	Power Subsector Efficiency Study (English)	02/89	093/88
	Energy Strategy Study (English)	02/89	094/88
	Urban Household Energy Strategy Study (English)	08/90	121/90
Zimbabwe	Energy Assessment (English)	06/82	3765-ZIM
	Power System Efficiency Study (English)	06/83	005/83
	Status Report (English)	08/84	019/84
	Power Sector Management Assistance Project (English)	04/85	034/85
	Power Sector Management Institution Building (English)	09/89	--
	Petroleum Management Assistance (English)	12/89	109/89
	Charcoal Utilization Prefeasibility Study (English)	06/90	119/90
	Integrated Energy Strategy Evaluation (English)	01/92	8768-ZIM
	Energy Efficiency Technical Assistance Project: Strategic Framework for a National Energy Efficiency Improvement Program (English)	04/94	--
	Capacity Building for the National Energy Efficiency Improvement Programme (NEEIP) (English)	12/94	--
EAST ASIA AND PACIFIC (EAP)			
Asia Regional	Pacific Household and Rural Energy Seminar (English)	11/90	--
China	County-Level Rural Energy Assessments (English)	05/89	101/89
	Fuelwood Forestry Preinvestment Study (English)	12/89	105/89
	Strategic Options for Power Sector Reform in China (English)	07/93	156/93
	Energy Efficiency and Pollution Control in Township and Village Enterprises (TVE) Industry (English)	11/94	168/94
	Energy for Rural Development in China: An Assessment Based on a Joint Chinese/ESMAP Study in Six Counties (English)	06/96	183/96
Fiji	Energy Assessment (English)	06/83	4462-FIJ

<i>Region/Country</i>	<i>Activity/Report Title</i>	<i>Date</i>	<i>Number</i>
Indonesia	Energy Assessment (English)	11/81	3543-IND
	Status Report (English)	09/84	022/84
	Power Generation Efficiency Study (English)	02/86	050/86
	Energy Efficiency in the Brick, Tile and Lime Industries (English)	04/87	067/87
	Diesel Generating Plant Efficiency Study (English)	12/88	095/88
	Urban Household Energy Strategy Study (English)	02/90	107/90
	Biomass Gasifier Preinvestment Study Vols. I & II (English)	12/90	124/90
	Prospects for Biomass Power Generation with Emphasis on Palm Oil, Sugar, Rubberwood and Plywood Residues (English)	11/94	167/94
	Lao PDR	Urban Electricity Demand Assessment Study (English)	03/93
Malaysia	Sabah Power System Efficiency Study (English)	03/87	068/87
	Gas Utilization Study (English)	09/91	9645-MA
Myanmar	Energy Assessment (English)	06/85	5416-BA
Papua New Guinea	Energy Assessment (English)	06/82	3882-PNG
	Status Report (English)	07/83	006/83
	Energy Strategy Paper (English)	--	--
	Institutional Review in the Energy Sector (English)	10/84	023/84
	Power Tariff Study (English)	10/84	024/84
Philippines	Commercial Potential for Power Production from Agricultural Residues (English)	12/93	157/93
	Energy Conservation Study (English)	08/94	--
Solomon Islands	Energy Assessment (English)	06/83	4404-SOL
	Energy Assessment (English)	01/92	979-SOL
South Pacific	Petroleum Transport in the South Pacific (English)	05/86	--
Thailand	Energy Assessment (English)	09/85	5793-TH
	Rural Energy Issues and Options (English)	09/85	044/85
	Accelerated Dissemination of Improved Stoves and Charcoal Kilns (English)	09/87	079/87
	Northeast Region Village Forestry and Woodfuels Preinvestment Study (English)	02/88	083/88
	Impact of Lower Oil Prices (English)	08/88	--
	Coal Development and Utilization Study (English)	10/89	--
	Tonga	Energy Assessment (English)	06/85
Vanuatu	Energy Assessment (English)	06/85	5577-VA
Vietnam	Rural and Household Energy-Issues and Options (English)	01/94	161/94
	Power Sector Reform and Restructuring in Vietnam: Final Report to the Steering Committee (English and Vietnamese)	09/95	174/95
	Household Energy Technical Assistance: Improved Coal Briquetting and Commercialized Dissemination of Higher Efficiency Biomass and Coal Stoves (English)	01/96	178/96
	Western Samoa	Energy Assessment (English)	06/85
SOUTH ASIA (SAS)			
Bangladesh	Energy Assessment (English)	10/82	3873-BD
	Priority Investment Program (English)	05/83	002/83
	Status Report (English)	04/84	015/84
	Power System Efficiency Study (English)	02/85	031/85
	Small Scale Uses of Gas Prefeasibility Study (English)	12/88	--

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India	Opportunities for Commercialization of Nonconventional Energy Systems (English)	11/88	091/88
	Maharashtra Bagasse Energy Efficiency Project (English)	07/90	120/90
	Mini-Hydro Development on Irrigation Dams and Canal Drops Vols. I, II and III (English)	07/91	139/91
	WindFarm Pre-Investment Study (English)	12/92	150/92
	Power Sector Reform Seminar (English)	04/94	166/94
	Environmental Issues in the Power Sector	06/98	205/98
	Nepal	Energy Assessment (English)	08/83
Status Report (English)		01/85	028/84
Energy Efficiency & Fuel Substitution in Industries (English)		06/93	158/93
Pakistan	Household Energy Assessment (English)	05/88	--
	Assessment of Photovoltaic Programs, Applications, and Markets (English)	10/89	103/89
	National Household Energy Survey and Strategy Formulation Study: Project Terminal Report (English)	03/94	--
	Managing the Energy Transition (English)	10/94	--
	Lighting Efficiency Improvement Program Phase 1: Commercial Buildings Five Year Plan (English)	10/94	--
	Sri Lanka	Energy Assessment (English)	05/82
Power System Loss Reduction Study (English)		07/83	007/83
Status Report (English)		01/84	010/84
Industrial Energy Conservation Study (English)		03/86	054/86
EUROPE AND CENTRAL ASIA (ECA)			
Bulgaria	Natural Gas Policies and Issues (English)	10/96	188/96
Central and Eastern Europe	Power Sector Reform in Selected Countries	07/97	196/97
	The Future of Natural Gas in Eastern Europe (English)	08/92	149/92
Kazakhstan	Natural Gas Investment Study, Volumes 1, 2 & 3	12/97	199/97
Kazakhstan & Kyrgyzstan	Opportunities for Renewable Energy Development	11/97	16855-KAZ
Poland	Energy Sector Restructuring Program Vols. I-V (English)	01/93	153/93
	Natural Gas Upstream Pricing (English and Polish)	08/98	206/98
	Energy Sector Restructuring Program: Establishing the Energy Regulatory Authority	10/98	208/98
Portugal	Energy Assessment (English)	04/84	4824-PO
Romania	Natural Gas Development Strategy (English)	12/96	192/96
Turkey	Energy Assessment (English)	03/83	3877-TU
MIDDLE EAST AND NORTH AFRICA (MNA)			
Arab Republic of Egypt	Energy Assessment (English)	10/96	189/96
Morocco	Energy Assessment (English and French)	03/84	4157-MOR
	Status Report (English and French)	01/86	048/86
	Energy Sector Institutional Development Study (English and French)	07/95	173/95

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Syria	Energy Assessment (English)	05/86	5822-SYR
	Electric Power Efficiency Study (English)	09/88	089/88
	Energy Efficiency Improvement in the Cement Sector (English)	04/89	099/89
Tunisia	Energy Efficiency Improvement in the Fertilizer Sector (English)	06/90	115/90
	Fuel Substitution (English and French)	03/90	--
	Power Efficiency Study (English and French)	02/92	136/91
	Energy Management Strategy in the Residential and Tertiary Sectors (English)	04/92	146/92
	Renewable Energy Strategy Study, Volume I (French)	11/96	190A/96
Yemen	Renewable Energy Strategy Study, Volume II (French)	11/96	190B/96
	Energy Assessment (English)	12/84	4892-YAR
	Energy Investment Priorities (English)	02/87	6376-YAR
	Household Energy Strategy Study Phase I (English)	03/91	126/91

LATIN AMERICA AND THE CARIBBEAN (LAC)

LAC Regional	Regional Seminar on Electric Power System Loss Reduction in the Caribbean (English)	07/89	--
	Elimination of Lead in Gasoline in Latin America and the Caribbean (English and Spanish)	04/97	194/97
	Elimination of Lead in Gasoline in Latin America and the Caribbean - Status Report (English and Spanish)	12/97	200/97
	Harmonization of Fuels Specifications in Latin America and the Caribbean (English and Spanish)	06/98	203/98
Bolivia	Energy Assessment (English)	04/83	4213-BO
	National Energy Plan (English)	12/87	--
	La Paz Private Power Technical Assistance (English)	11/90	111/90
	Prefeasibility Evaluation Rural Electrification and Demand Assessment (English and Spanish)	04/91	129/91
	National Energy Plan (Spanish)	08/91	131/91
	Private Power Generation and Transmission (English)	01/92	137/91
	Natural Gas Distribution: Economics and Regulation (English)	03/92	125/92
	Natural Gas Sector Policies and Issues (English and Spanish)	12/93	164/93
	Household Rural Energy Strategy (English and Spanish)	01/94	162/94
Brazil	Preparation of Capitalization of the Hydrocarbon Sector	12/96	191/96
	Energy Efficiency & Conservation: Strategic Partnership for Energy Efficiency in Brazil (English)	01/95	170/95
	Hydro and Thermal Power Sector Study	09/97	197/97
Chile	Energy Sector Review (English)	08/88	7129-CH
Colombia	Energy Strategy Paper (English)	12/86	--
	Power Sector Restructuring (English)	11/94	169/94
Costa Rica	Energy Efficiency Report for the Commercial and Public Sector (English)	06/96	184/96
	Energy Assessment (English and Spanish)	01/84	4655-CR
	Recommended Technical Assistance Projects (English)	11/84	027/84
Dominican Republic	Forest Residues Utilization Study (English and Spanish)	02/90	108/90
	Energy Assessment (English)	05/91	8234-DO
Ecuador	Energy Assessment (Spanish)	12/85	5865-EC
	Energy Strategy Phase I (Spanish)	07/88	--

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Ecuador	Energy Strategy (English)	04/91	--
	Private Minihydropower Development Study (English)	11/92	--
	Energy Pricing Subsidies and Interfuel Substitution (English)	08/94	11798-EC
Guatemala	Energy Pricing, Poverty and Social Mitigation (English)	08/94	12831-EC
	Issues and Options in the Energy Sector (English)	09/93	12160-GU
Haiti	Energy Assessment (English and French)	06/82	3672-HA
	Status Report (English and French)	08/85	041/85
Honduras	Household Energy Strategy (English and French)	12/91	143/91
	Energy Assessment (English)	08/87	6476-HO
	Petroleum Supply Management (English)	03/91	128/91
Jamaica	Energy Assessment (English)	04/85	5466-JM
	Petroleum Procurement, Refining, and Distribution Study (English)	11/86	061/86
	Energy Efficiency Building Code Phase I (English)	03/88	--
	Energy Efficiency Standards and Labels Phase I (English)	03/88	--
	Management Information System Phase I (English)	03/88	--
	Charcoal Production Project (English)	09/88	090/88
	FIDCO Sawmill Residues Utilization Study (English)	09/88	088/88
	Energy Sector Strategy and Investment Planning Study (English)	07/92	135/92
	Improved Charcoal Production Within Forest Management for the State of Veracruz (English and Spanish)	08/91	138/91
Mexico	Energy Efficiency Management Technical Assistance to the Comision Nacional para el Ahorro de Energia (CONAE) (English)	04/96	180/96
	Power System Efficiency Study (English)	06/83	004/83
Panama	Energy Assessment (English)	10/84	5145-PA
Paraguay	Recommended Technical Assistance Projects (English)	09/85	--
	Status Report (English and Spanish)	09/85	043/85
	Energy Assessment (English)	01/84	4677-PE
Peru	Status Report (English)	08/85	040/85
	Proposal for a Stove Dissemination Program in the Sierra (English and Spanish)	02/87	064/87
	Energy Strategy (English and Spanish)	12/90	--
	Study of Energy Taxation and Liberalization of the Hydrocarbons Sector (English and Spanish)	120/93	159/93
	Energy Assessment (English)	09/84	5111-SLU
Saint Lucia	Energy Assessment (English)	09/84	5111-SLU
St. Vincent and the Grenadines	Energy Assessment (English)	09/84	5103-STV
Trinidad and Tobago	Energy Assessment (English)	12/85	5930-TR
GLOBAL			
	Energy End Use Efficiency: Research and Strategy (English)	11/89	--
	Women and Energy--A Resource Guide		
	The International Network: Policies and Experience (English)	04/90	--
	Guidelines for Utility Customer Management and Metering (English and Spanish)	07/91	--
	Assessment of Personal Computer Models for Energy Planning in Developing Countries (English)	10/91	--
	Long-Term Gas Contracts Principles and Applications (English)	02/93	152/93

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	GLOBAL (Continuation)		
	Comparative Behavior of Firms Under Public and Private Ownership (English)	05/93	155/93
	Development of Regional Electric Power Networks (English)	10/94	--
	Roundtable on Energy Efficiency (English)	02/95	171/95
	Assessing Pollution Abatement Policies with a Case Study of Ankara (English)	11/95	177/95
	A Synopsis of the Third Annual Roundtable on Independent Power Projects: Rhetoric and Reality (English)	08/96	187/96
	Rural Energy and Development Roundtable (English)	05/98	202/98
	A Synopsis of the Second Roundtable on Energy Efficiency: Institutional and Financial Delivery Mechanisms (English)	09/98	207/98

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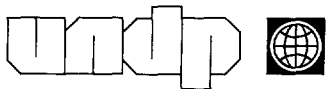
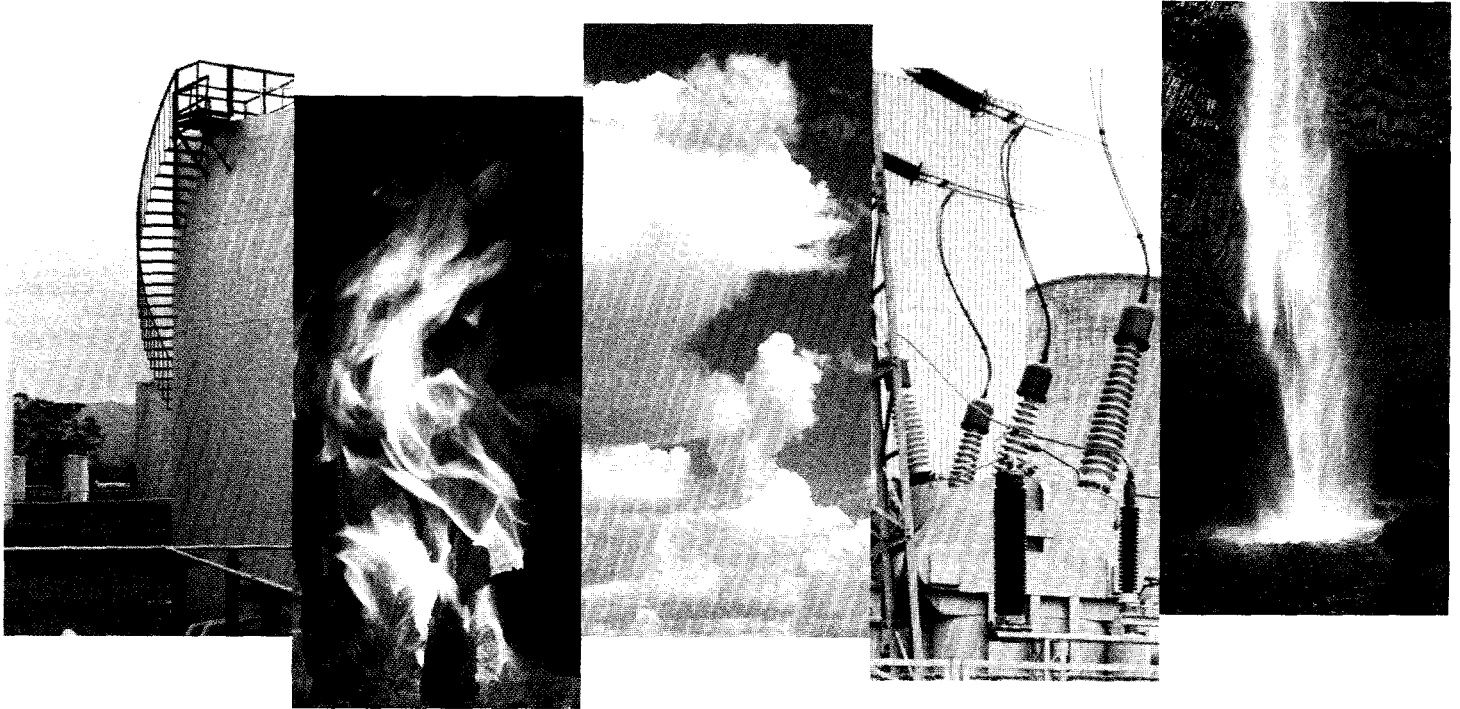
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