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KAZAKHSTAN

**NIS Institutional Based Services Under the Energy
Efficiency and Market Reform Project
Contract No CCCN-Q-00-93-00192-00**

**Kazakhstan Electricity
Delivery Order No 05**

Final Report

Prepared for

U S Agency for International Development
Bureau for Europe and NIS
Office of Environment, Energy and Urban Development
Energy and Infrastructure Division

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CHAPTER 1 BACKGROUND

Following the dissolution of the Soviet Union in 1991, Kazakhstan began its independence endowed with tremendous natural resource development potential, but hampered by a crumbling, centrally planned infrastructure and economic system. The electric power industry was a reflection of many of the larger problems within Kazakhstan. Electricity prices did not rise to meet the cost of generation while customer collections fell to less than 20% percent of delivered supply. The resulting consumer and enterprise debts soon led to a reduction in regional electricity trade as neighboring countries refused to supply electricity without payment. Once an integrated part of the Central Asian power grid under the Soviet Union, Kazakhstan found itself increasingly cut off from the electricity trade in the region. Electricity shortages and rolling blackouts soon became a part of everyday life in many parts of the country.

Ironically, Kazakhstan has vast reserves of oil, natural gas, and coal that could fuel the development of the electric power industry. However, the lack of payment for electricity left the power sector without the investment capital needed for rehabilitation or the construction of new power plants.

In 1994 the government of Kazakhstan adopted a bold policy to reform and privatize the electric power sector in order to introduce the Western management techniques and investment capital necessary to resolve the problems plaguing the industry. USAID quickly developed an assistance program to provide the Ministry of Energy and the Government of Kazakhstan with the technical expertise to carry out this reform program. This delivery order was created to assist the government and Ministry of Energy in the process of transforming the electricity sector from a deteriorating, state-owned monopoly into a healthy collection of privately-owned enterprises.

The delivery order was comprised of two major groups of tasks: (1) legal, regulatory, and tariff reform, and (2) restructuring and privatization. A description of each of these tasks is provided below, along with the results seen, list of deliverables, and a description of other work products produced as part of the delivery order. An exhibit is provided at the end of this report summarizing the key events, deliverables, timing and accomplishments associated with each task.

CHAPTER 2

LEGAL, REGULATORY AND TARIFF REFORM

The major tasks under this delivery order were grouped into two functional areas: Legal, Regulatory, and Tariff Reform, and Restructuring and Privatization. The objective of the Legal, Regulatory and Tariff Reform tasks was to assist in the creation of the legislative, institutional, and electricity pricing framework necessary to support the restructuring and privatization efforts in the sector to create a market oriented power system. The goal of this effort is to establish the environment needed in Kazakhstan to attract and sustain private investment in the power industry. These tasks were carried out simultaneously in order to support the aggressive timeline initially set by the government of Kazakhstan for the reform of the electric power industry.

2.1 MAJOR RESULTS

One of the first accomplishments of this task was to convince the government of the need for a Western-style legal framework to replace the socialist legal code inherited from the Soviet era. Through numerous meetings and briefings, governmental officials came to accept the concepts needed to both protect the interests of private investors as well as consumers in an unbundled electricity market. One of the primary principles agreed upon through these meetings was the need to create an impartial, independent regulatory commission with responsibility over electricity tariffs and licenses. The endowment in an independent commission of regulatory and pricing authority was an alien concept in the former Soviet Union. However, thanks in large part to a successful study tour to observe the operations of several regulatory commissions in the United States, the need for such a reform became clear to many decision-makers in the Kazakh electricity industry.

Hagler Bailly was asked to participate in a Ministry working group to advise the government on the drafting of a new Presidential Decree. The result of this collaboration with the government and Ministry of Energy, Industry, and Trade was the 1995 Presidential Decree on Electricity. This decree established several Western legal and structural principles for the first time into Kazakh law. The Law included provisions that called for the creation of an independent regulatory agency, introduced the concept of electricity as a commodity, and established the right of private investors to own and operate electric power enterprises. This decree created the necessary legal basis for the further unbundling of the electric power industry and the acceleration of the privatization process.

Hagler Bailly worked with the Anti-Monopoly Committee (AMC), The Ministry of Energy, and Kazakstanenergo to design and implement market-based electricity tariffs to replace the command and control pricing formulas of the past. In 1996 Hagler Bailly experts conducted a seminar on electricity pricing. This was followed by the completion of a comprehensive tariff study in Kazakhstan by Hagler Bailly in which the current electricity tariff methodology was analyzed and changes recommended to adopt more market-oriented methodologies to implement in the restructured power sector. Hagler Bailly presented this tariff report to the Ministry of Energy, AMC, Kazakstanenergo, and representatives of the government of Kazakhstan through two separate seminars and numerous meetings. Hagler Bailly was requested to develop an implementation schedule for phasing in these tariff methodologies. Working with the AMC, the first phase of the tariff methodologies were implemented in 1997 with full implementation in 1998. The tariff methodologies provide an attractive environment for privatization of the power industry since they allow for full cost recovery, plus an addition profit margin to cover capital costs and country risk factors.

Hagler Bailly also drafted licenses and a licensing regime for an independent regulatory commission to use as a tool to regulate the newly restructured electricity industry. Individual model licenses were created for various electricity enterprises including generation, distribution, transmission, independent supplier, and dispatch. A licensing process was discussed with the AMC and the Ministry of Energy as a method of ensuring the technical and financial integrity of the enterprises engaged in the competitive wholesale market while also providing a tool to remove enterprises for transgressions of the Market Rules and other wholesale market guidelines.

In 1997 Hagler Bailly was asked by the Ministry to participate in a working group led by the National Transmission Company of Kazakhstan (KEGOC) to draft a law to replace the 1995 Presidential Decree "with the force of law" on electricity. Hagler Bailly participated in this process and worked with both the Ministry and KEGOC to provide comments and advice on draft versions of the law. Hagler Bailly also produced its own Western-style draft law for the Ministry and KEGOC modeled on recent laws adopted in Georgia and Kyrgyzstan. The Hagler Bailly draft law clarified the rights and responsibilities of the various participants in the electricity industry while establishing a regulatory and licensing process. The Hagler Bailly draft law is currently under consideration by the Ministry and the Government.

2.2 DELIVERABLES REQUIRED BY THE DELIVERY ORDER

1 Report detailing the tasks, schedules, and costs for completing task 2

This deliverable was accomplished as part of the overall work plan for the delivery order that was developed with USAID in October 1994. Subsequent modifications to the

delivery order in 1997 and 1998 resulted in the development of new work plans reflecting the changes in project tasks, schedules and costs

- 2 A report on restructuring status, activities completed under task #2, and identification of tasks remaining

Hagler Bailly produced status reports on the activities under task #2 in December 1994 and March 1998. These reports analyzed the work done to date on task #2 activities, the issues involved, and the steps remaining to be done to meet the task objectives. In addition, Hagler Bailly provided USAID with continuous updates on project status, issues, and remaining work through weekly meetings with the USAID Mission in Almaty. These meetings served to keep the Mission staff abreast of the issues and progress while providing a forum for discussing future activities and strategies. In addition, the final report provides a comprehensive overview of the projects and activities completed under task #2 and highlights areas for future activities.

- 3 Identify and assess existing and proposed policies and legal reforms, including any draft legislation, and assess its impact on the creation of a market oriented power system that includes private sector participation

Hagler Bailly accomplished a number of milestones in legal reform during this project. In 1995, working intensively with the Ministry of Energy and Coal Industry, Hagler Bailly assisted in the creation of the Presidential Draft Decree governing electricity. After assessing existing energy law, Hagler Bailly worked with the Ministry of Energy to include terminology and amendments in the Presidential Decree that would support the creation of a power market in electricity and the participation of the private sector. The Presidential Decree introduced important new concepts such as the creation of an independent regulatory agency, the recognition of electricity as a commodity, and the right of private investors to own and operate electric power enterprises.

In 1997 the Ministry of Energy again asked Hagler Bailly to assist in the creation of an updated electricity law in light of the rapid changes which have occurred in the electric power industry since the 1995 Decree. As a member of the governmental Electricity Law Working Group, Hagler Bailly assisted the national grid company and the Ministry of Energy, Industry and Trade, which were instructed to create the new law. As a potential model, Hagler Bailly drafted a Western-style electricity law for the Ministry and KEGOC modeled on recent laws adopted in Georgia and Kyrgyzstan. This draft law was completed and delivered to the Ministry of Energy at the end of 1997.

In addition to work on electricity laws, Hagler Bailly, through its subcontractor Pepper, Hamilton and Scheetz, produced a draft Coal Law in April 1995. The electric power and coal sectors have strong economic ties and reform of the coal industry was a critical

component to the reform of the power sector. This coal law created the legal basis for such reforms.

4. Develop framework energy policies and laws, as appropriate, drawing on existing or proposed energy laws in other countries and preparing drafts as necessary.

As noted above, Hagler Bailly worked with the government of Kazakhstan to draft several electricity and coal sector laws over the course of the project. In addition, Hagler Bailly was appointed by the Ministry of Energy to the Legal Working Group on Energy Efficiency in April 1995. As part of this working group, Hagler Bailly provided comments on the proposed use of a Russian draft law on energy efficiency as the basis for energy efficiency policy in Kazakhstan.

5. Draft and recommend a comprehensive new Electricity Law that incorporates all of the changes that have taken place in the industry structure.

In response to this project deliverable, Hagler Bailly produced the 1997 Draft Electricity Law. This law, as noted previously, codified the current reforms in the electricity sector while also providing for the future development of a wholesale electricity market and the regulation of the industry by an independent regulatory agency.

6. Provide limited technical assistance (including focused seminars) to the Kazakhstan authorities in applying proposed policies and model legislation.

Hagler Bailly established very productive working relationships with the Ministry of Energy, KEGOC, and other governmental electricity groups through Hagler Bailly's position on governmental working groups and as a recognized promoter of electricity reform initiatives within the power industry. During working group proceedings Hagler Bailly provided comments on energy policies and legislation and shared Western experiences and policies with Kazakh officials. Through these and other forums, Hagler Bailly provided guidance and assistance on national energy policy, electricity restructuring, wholesale markets, and energy law and regulation. Hagler Bailly also participated in weekly KEGOC meetings on electricity reform and conducted a seminar at KEGOC on the operation of different types of power pools. The presentation from this seminar was included in a reference book published by KEGOC on electricity reform.

7. Assess organizational options under consideration for administration of regulatory function and identify pros and cons of options.

This deliverable was addressed in the August 1995 Hagler Bailly report on general guidelines for regulating natural monopolies.

- 8 Identify regulatory organizational arrangements consistent with market-oriented power sector, including economic tariffs and the role for private investment. Define broadly the organizational requirements and timetable for institutional development of a regulatory body and identify the regulations and procedures required to implement framework energy legislation and a regulatory body.

The comprehensive Energy Law drafted by Hagler Bailly in December 1997 provides the framework for satisfying the above deliverable requirements concerning the establishment of a regulatory institution within a market-oriented power sector. The Energy Law broadly defines the organizational relationships between the regulatory agency and industry participants while identifying basic regulations and procedures.

In addition, the 1996 tariff study prepared by Hagler Bailly elaborates on the role of the regulatory body in establishing economic tariffs and the relationship between the regulatory agency and private investors. The tariff study recommends market-based tariff methodologies to assist the regulatory body in their tariff development work.

In 1998 Hagler Bailly assisted the Natural Monopolies Committee (formerly Anti-Monopoly Committee) with additional assistance on specific procedural issues. Hagler Bailly provided the Committee with further documentation on the role and function of a regulatory committee within a market-oriented power sector. This assistance includes the September 1998 report "The Role of the Regulator in the Process of Privatization of the Regional Electric Companies in Kazakhstan".

- 9 Identify power sector planning requirements needed to carry out regulatory responsibilities, identify investment requirements and encourage private investment and identify a plan and schedule for developing energy planning capability in the context of restructuring and privatization.

The 1997 draft of the Law on electricity allocates policy planning to the Ministry of Energy, regulatory planning to the independent regulatory commission and investment planning to the separate industry sectors.

- 10 Draft and recommend laws (decrees), rules, and regulations, resolutions and procedures, as appropriate, needed for the development of Wholesale Market Operations including such elements as bidding procedures, financial settlements, inter-energo agreements and pricing methodologies.

In response to the request of the Ministry of Energy, Hagler Bailly developed a complete set of Market Rules for the design, operation, and implementation of Wholesale Market Operations in Kazakhstan. Hagler Bailly developed licenses to be used by the regulatory agency that specify the rights and responsibilities of all market members. Hagler Bailly prepared rules governing financial settlements, drafted model contracts and agreements,

including an overarching market members' agreement, and created a dispatch methodology. In addition, Hagler Bailly prepared a set of interim market rules to smooth the transition between the current wholesale market operations in the sector and the proposed commercial wholesale market.

- 11 One regulatory study tour to other countries to promote exposure to progress and problems in electricity regulation

In 1997 Hagler Bailly assisted in the organization of a study tour to Budapest for Kazakh officials to meet with other NIS and Eastern European regulatory officials in order to discuss the status of regulatory reform in the region. This study tour included presentations on regulatory successes, problems, and solutions experienced throughout Europe and the NIS as well as featured speeches from Western experts on regulatory reform and practices worldwide.

- 12 Draft and recommend a comprehensive new Electricity Law that incorporates all of the changes that have taken place in the structure of the electricity industry in Kazakhstan

Hagler Bailly's comprehensive draft Electricity Law of December 1997 codifies all the restructuring activities to date while also providing for the future development of a competitive wholesale market, establishing a favorable environment for investment, and greatly improving regulatory oversight of the market-oriented sector.

- 13 Identify appropriate existing or proposed tariff methodologies required to establish economic energy systems. Also identify future analysis and modifications necessary to promote the continuing reform of electricity tariffs, with consideration of the reform schedule.

In response to the urgent need to reform the tariff making procedure and methodologies used in Kazakhstan, Hagler Bailly prepared an analysis of electricity contracting and pricing in Central Asia in 1995. This was followed by the completion of a comprehensive tariff report in 1996. This report analyzed the current methodologies being employed and provided options and recommendations to implement more market-oriented tariff formulas that would improve the financial health of the electricity industry and promote increased private investment in the power sector. This report was presented to the Ministry of Energy and to the AMC and Hagler Bailly conducted a tariff seminar in early 1997. Ongoing assistance was provided to the AMC during 1997 and 1998 to help to implement these new methodologies.

In addition, Hagler Bailly completed a transmission tariff report for the AMC and KEGOC in May 1998. This report recommended specific changes to the transmission methodology currently employed in Kazakhstan in order to support the creation of a

wholesale market with the participation of privately owned power plants and distribution companies

- 14 Assist in creating transition tariffs for the wholesale market until the competition in the market eliminates the need for tariffs

Hagler Bailly developed detailed wholesale market tariffs for the market transition phase of the reform process in the comprehensive 1996 Tariff Report

CHAPTER 3

RESTRUCTURING AND PRIVATIZATION

Building upon the momentum generated by the privatization program of the Government of Kazakhstan, the tasks in the restructuring and privatization assistance were designed to provide the structural, organizational, and market-based tools for the electricity industry to modernize and attract increased capital to the sector. The restructuring and privatization tasks worked in tandem with the legal, regulatory, and tariff reform initiatives to create a framework unbundled structure for the new electricity industry, provide a power pool design plan, and further the efforts to privatize the industry.

3.1 MAJOR RESULTS

In 1996 the Government of Kazakhstan adopted the Program of Restructuring and Privatization of the Electric Power Sector. This restructuring program clearly reflected many of the Western market principles and concepts promoted by Hagler Bailly in its meetings with the Ministry of Energy and Government of Kazakhstan. Based on the Programs of Restructuring and Privatization, the electricity industry of Kazakhstan was functionally unbundled into separate generation, transmission and distribution companies. As part of the restructuring process, a state-owned national grid company was formed out of the former vertically integrated state utility (Kazakstanenergo). In addition, generation companies were formed from the largest power plants and 18 individual distribution companies were created. The Government of Kazakhstan quickly moved to privatize the generation companies, selling some of the largest thermal plants to AES, Japan Chrome, Ispat-Karmet, and Samsung in return for substantial investment guarantees. By the end of 1997, roughly 90% of the generating capacity had been privatized.

Also the electricity distribution company in the capital, Almatyenergo, was sold to the Belgian electricity company Tractebel. The sale of Almatyenergo resulted in the stabilization of electricity and heat distribution in Almaty and the implementation of uninterrupted service for all paying consumers. Cash collections at Almaty Power Consolidated, the new name of the privatized company, rose from less than 20% before privatization to nearly 95% in the 18 months since it was privatized and service to Almaty has become almost continuous. The privatization of the thermal power plants created a competitive environment for wholesale power and resulted in significant improvements in plant efficiency and operating costs.

In order to provide a structure for the fledgling competitive wholesale electricity market growing out of the privatization of the generation companies, the Government of Kazakhstan initiated an effort to design market rules and regulations. In 1996 the Minister of Energy, Mr Khrapunov, appointed Hagler Bailly to the Organization Committee and Executive Group tasked to create a competitive wholesale electricity market. Mr Khrapunov requested Hagler Bailly to draft a number of important documents for the committees as part of this process. Hagler Bailly drafted a Market Members Agreement, Market Rules, and Settlements procedures for the implementation and operation of a competitive wholesale electricity pool. Hagler Bailly also created licenses specifying the rights and responsibilities of the various wholesale market enterprises and members as well as transition rules for the market. Hagler Bailly also advised these governmental committees on issues including financial and investment forecasting, data systems evaluation, and computer hardware assessments.

In 1997 a meeting was organized of the founding members of the wholesale power pool of Kazakhstan. This meeting included the owners of the privatized power enterprises as well as representatives of the state owned power enterprises and the Ministry of Energy. At the meeting the members discussed and unanimously adopted the Power Pool Charter Agreement drafted by Hagler Bailly. A change in personnel at the Ministry of Energy in 1997 precipitated by the resignation of Minister Khrapunov resulted in a slow-down in the reform efforts in the electricity sector, which had the effect of delaying the start of the wholesale electricity pool. However, Hagler Bailly continued to work with members of the industry, the Ministry of Energy and the national grid company, renamed Kazakhstan Electric Grid Operating Company (KEGOC), on the design and implementation of the wholesale power pool.

The slow-down in the reform of the electricity sector was manifested in the postponement of further privatization among the regional distribution companies. This had very significant knock-on effects on the other aspects of reform in the electricity sector because the economics of the sector depend on solving the non-payments problem, and non-payments can only be solved by privatization of the distribution companies to strategic investors. The plans to introduce a wholesale market and a power pool were based on privatizing the distribution companies in parallel to provide for money to be able to operate a cash-based wholesale market. For this reason, the introduction of the wholesale market and the power pool had to be delayed until the distribution company privatization proceeded.

Hagler Bailly also assisted the World Bank in evaluating restructuring and privatization issues in Kazakhstan. Following an in-country technical assessment in mid-1998, the World Bank concurred with the Hagler Bailly Market Rules documents, Energy Law and electricity tariff methodologies, and so indicated to the Government of Kazakhstan and the Ministry of Energy.

By the summer of 1998 the Ministry of Energy and KEGOC concluded that all other efforts to solve the non-payments problem had failed, and the Government agreed to begin to privatize the remainder of the regional distribution companies. Two additional companies were sold in early summer – Kustenaı and Karaganda – and plans are underway to sell as many as possible before the end of the year.

Hagler Bailly had discussions with the General Director of Pavlodarenergo in 1998 concerning the establishment of a pilot project to develop a privatization strategy and plan for the distribution company. Pavlodarenergo expressed great interest in this program due to the financial and investment problems at the company and agreed to work with Hagler Bailly to produce and implement a privatization plan. Hagler Bailly representatives worked closely with the senior management of Pavlodarenergo over the summer of 1998 to develop a strategic plan for attracting investment to the distribution company and improving such vital business processes as billings and collections.

In late summer of 1998 the members of the Energy Industry Association and KEGOC agreed to establish a simple power pool to trade reserves and to contract for the provision of ancillary services. This landmark decision was announced after a year of stalled plans by the government to establish a power pool. The decision resulted from the coordinated efforts of the private investors in the power industry to provide greater system reliability and improve the quality of service for their industrial sector clients. Hagler Bailly was actively involved in helping to draft the Charter for the Reserve Pool and in developing an initial set of Market Operating Procedures. The full membership of the wholesale market must now review these documents and vote to establish the Reserve Pool joint stock company. To insure generators against default by wholesale market customers, a Reserve Pool Fund will be established as part of the process. This milestone marks the first step in the eventual development of a fully functional power pool in Kazakhstan.

3.2 DELIVERABLES REQUIRED BY THE DELIVERY ORDER

1. Develop 2-3 restructuring options and the advantages and disadvantages of each to accomplish the objectives defined in collaboration with the GOK, assist in review of the options with a short seminar and advice to facilitate GOK decisions.

Hagler Bailly produced a restructuring report and conducted numerous meetings with representatives of the Government of Kazakhstan and the Ministry of Energy concerning the restructuring and privatization of the electric power industry. These efforts resulted in the adoption of the Program of Privatization and Restructuring of the Electric Power Sector.

- 2 Submit an assessment of the restructuring plans under consideration or discussion and an options paper (with pros and cons) on overall power sector restructuring

Hagler Bailly produced a report on wholesale market approaches in December 1997 at the request of the Ministry of Energy. This report, titled "Wholesale Market Reform and Creation of a Power Pool", identified the most realistic wholesale market design approach for Kazakhstan's electricity sector and outlined the necessary procedures for establishing and operating such a market.

Building on this work, Hagler Bailly was asked by the Government of Kazakhstan and the Ministry of Energy to prepare the actual documents establishing the pool operating agreements and guidelines. Hagler Bailly prepared a complete set of Market Rules, purchase and sales contracts, transmission contracts, licenses, tariff methodologies, dispatch and settlement procedures.

- 3 Provide advice on power sector privatization

Hagler Bailly conducted numerous discussions over the course of the contract with the Government of Kazakhstan and Ministry of Energy concerning the privatization of the electric power industry. In addition, Hagler Bailly produced a Privatization Plan for the Electric Energy Sector in March 1996. The combination of this plan and various meetings between Hagler Bailly, the Government of Kazakhstan and Ministry of Energy led to the development and adoption of the Program of Privatization and Restructuring of the Electric Sector in 1996. The ground breaking privatization sales of large thermal power plants and the Almaty distribution company to strategic investors following the adoption of this plan was a landmark in large scale privatization in the former Soviet Union.

Hagler Bailly continued to advise the Government of Kazakhstan and Ministry of Energy on expanding the privatization program to include all the distribution enterprises in Kazakhstan. By mid-1998 five of the country's 18 distribution companies had been privatized.

- 4 Prepare and participate in power sector investment promotions through information dissemination such as conferences, seminars, and related activities

Hagler Bailly spread the success stories of Kazakh power privatization throughout the international electricity industry through presentations at international electricity conferences in the United States and Europe and through presentations to investment companies and private utilities.

- 5 Report on wholesale market approach and procedures

Building upon the progress achieved during discussions with industry members and KEGOC during the summer and fall of 1998, Hagler Bailly produced the report "Wholesale Electricity Market Approach, Procedures, and Implementation Plan" This report synthesized the discussions between various industry participants concerning electricity spot market development into an actionable plan The plan is designed to result in a basic spot market in the short term with the later development of a fully functional power pool as outlined in Hagler Bailly's December 1997 report "Wholesale Market Reform and Creation of a Power Pool"

6 At least one in-country seminar on pooling and wholesale market operation

In 1996 Hagler Bailly held two seminars on the operation of a power pool and a wholesale market These were followed by numerous meetings with wholesale market working groups from the Ministry of Energy and Government of Kazakhstan during 1997 and 1998 Hagler Bailly also conducted a public presentation at KEGOK on various international pooling arrangements and case studies In August and September 1998 Hagler Bailly conducted several seminars on power pooling with private sector electricity industry members and KEGOC These seminars led to the agreement among private investors and the government to institute a spot market trading system for reserve power and ancillary services as identified in Hagler Bailly's report "Wholesale Electricity Market Approach, Procedures, and Implementation Plan"

7 Design a collections pilot program and privatization plan for a distribution company

Hagler Bailly prepared a privatization strategy and implementation plan with Pavlodarenergo and provided recommendations on ways to improve collections and other business processes This task created a joint strategy with the senior management of the distribution company to attract qualified strategic investors to participate in a future privatization tender for the company The task also developed a detailed plan for improving key business processes before the privatization of the firm These recommendations include increasing collections, enhancing information management, and improving other aspects of the company to make it more attractive for investors

Overall, this delivery order contributed significantly to the progress achieved in the electricity industry in Kazakhstan in a relatively short period of time The work under this contract helped to lay the legal and institutional foundation that allowed the Government of Kazakhstan to achieve major steps forward in the restructuring and privatization of one of its largest industrial sectors The work under this contract also played a major role in shaping the new structure of the power industry and reorganizing the sector according to free market principles The attached exhibit summarizes the progress made during this delivery order by detailing the major quarterly outputs and events associated with both of the project tasks

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Task	Quarterly Events	Quarterly Deliverables/Outputs	Other Highlights
<p>Task 2 0 Legal, Restructuring and Tariff Reform</p>	<p>1Q/95 –Teams of attorneys were formed to work on all three laws, with Latham & Watkins leading on the electricity and energy savings law, and Perrin Hamilton and Scheetz leading on the coal law</p> <p>2Q/95 A draft electricity law developed by Latham & Watkins, translated into Russian and provided to the Kazakh counterparts</p> <p>3Q/95 All comments were submitted and the Electricity Decree was finalized and approved by the Cabinet of Ministers in August. The Ministry of Energy and Coal Industries (MEC) formed a committee to review all comments on electric law and to consider their adoption before submitting a final draft to the Cabinet of Minister for adoption</p> <p>1Q/96 Prepare representatives of the Ministry of Energy and Coal Industry (MECI), State Committee on Antimonopoly and Pricing Policy (AMC), and Kazakhstanenergo for the USAID/IEE Regulatory Study Tour in the U S , Ukraine and the United Kingdom</p> <p>2Q/96 The GOK adopted the Program o Energy Savings, which may or may not displace the need for the Decree on Energy Savings</p> <p>USAID/Hagler Bailly continues to analyze financial, engineering and technical data and contracts received from counterparts in conduction the Electricity Tariff Study. Alternative model spreadsheets are being developed to propose a pricing policy and tariff structure that will recover all costs and more importantly be likely for adoption and acceptability by the GOK and customers</p> <p>4Q/96 Prepare for the GOK adoption of an Independent State Regulatory Commission (SRC) and assist in the</p>	<p>3Q/95 Met deadline of August 31, 1995 for electricity law assistance</p> <p>Met deadline of September 30, 1995 for electricity tariff assistance</p> <p>The draft energy savings law was released by the MEC</p> <p>4Q/95 The Electricity Decree was submitted to the Ministry of Energy and Coal (MEC) and decree was signed on December 23, 1995 by President Nursultan Nazarbayev</p> <p>1Q/96 Prepared background documents on issues relating to the role of the MECI and an independent regulatory decision-making, for attendees of the Republic Study Tour</p> <p>A seminar was held for representatives of the power sector on Electricity Pricing Tariffs</p> <p>3Q/96 The GOK adopted the Resolution on the State Regulatory Commission in Electric Power Engineering on July 25. In a quick response to an overnight request by MECI Manager Galinova, submitted comments on our concerns with the Resolution. The comments focused on two broad concerns, the lack of political independence and the need for specific principles with regards to independent regulations. Both of these concerns were adequately addressed in the final draft submitted</p>	<p>1Q/95 A draft concept paper for the electricity law was developed, translated into Russian, and provided to the Kazakh counterparts. Discussions were held with Kazakh counterparts, their comments on electricity law concept paper were received, and the concept paper was finalized. Based on the concept paper, drafting of the electricity law was also started</p> <p>2Q/95 The electricity law developed by Latham & Watkins was not accepted by the Minister of Energy and Coal (MEC), even though MEC had been actively involved in the development of the concept paper and the draft. According to the Minister, the law needed to be converted into a version more closely suited to the new Government's restructuring policy, and Kazakh law. Thus the draft electricity law was not accepted by MEC, and MEC began an independent effort to develop a decree of law according to its policy</p> <p>1Q/96 Presentation at the meeting of the GOK Committee on Natural Monopoly. Issues on the need to simultaneously set in place an independent regulatory commission, develop an implementation schedule for a cost-based tariff structure, and to properly value assets in light of the announcement that the GOK plans to privatize 80% of the state owned power generation facilities this year</p>

organization and day-to-day start-up operations

1Q/97 Several meetings have been held with the AMC, the MEC and with KEGOC, the transmission company (successor to Kazakhstanenergo), to discuss the methodology which has been recommended in the draft Tariff Report

2Q/97 The Anti-Monopoly Committee, which is now responsible for setting tariffs, has begun to use the methodology recommended in the Draft Tariff Report which was submitted last quarter in setting the tariffs for the transmission system

The newly formed Strategic Planning Group under the President has become interested in creating an independent regulatory commission. A proposal has been presented to the Strategic Planning Group and Hagler Bailly is working to support them in this effort

3Q/97 Several meetings have been held with the AMC, the MEC and with KEGOC, the transmission company (successor to Kazakhstanenergo), to discuss the methodology which has been recommended in the Draft Tariff Report

1Q/98 Worked with KEGOC and the Industry Working Group to develop a draft of the new Electricity Law which incorporates the items which are included in our draft

This previous draft of the Law from KEGOC was withdrawn because it was not accepted by either the Industry Working Group or the Ministry

Continued to work with the Industry Working Group to have our draft of the new Electricity Law accepted by the Ministry and the Industry

Meetings with the World Bank have identified that the World Bank has a Structural Adjustment Loan in Kazakhstan which may provide leverage in passage of our draft of the New Law on Electricity which includes

jointly by the AMC and the MECI to the GOK, however it appears that a committee of high-level government officials were ultimately selected to be members of the SRC, thus dampening the ability for independent decision-making

4Q/96 USAID/Hagler Bailly prepared a working draft Resolution for an independent SRC at the request of MECI Minister Kraponov and AMC Chairman Radastovetz. The Resolution conforms with the recommendations of the USAID/Hagler Bailly Tariff Study and the plans to set in place a comprehensive power pool

USAID/Hagler Bailly delivered the draft report of the Electricity Tariff Study to the MECI, AMC, and Kazakhstanenergo. Presentations on the findings and recommendations were made to several GOK representatives through two separate seminars and many different meetings. The GOK representatives requested assistance to develop an implementation schedule and to customize tariffs and pricing structures, merging recommendations with their socio/economic/political implications

1Q/97 Hagler Bailly submitted a draft of the Tariff Report to USAID, AMC and MEC

2Q/97 The Anti-Monopoly Committee, which is now responsible

Met with representatives of the World Bank and the Asian Development to discuss and encourage conditionalities on GOK power sector loans that are being considered

Met with key counterparts of Kazakhstanenergo and received projected annual expenditures and fuel costs and other financial data needed to conduct the Tariff Study

2Q/96 J. Michael Biddison was the guest of MECI Minister Kraponov and the keynote speaker at the annual "Meeting of Power Engineers" in Akmol, the new capital of Kazakhstan. He addressed over 100 of the republic's industry leaders on USAID Assistance to the Power Sector in the ROK, and covered the current status and future cooperation in legal and regulatory reform, wholesale pricing and tariff structure, restructuring and privatization, and the CAR electricity contracting and pricing reform project

1Q/97 The GOK recognizes that the SRC has not yet been properly created, therefore the AMC/MECI still unofficially decides quarterly tariffs. Due to the rapid changes that are occurring in the power sector, the GOK has not focused on revising the SRC in accordance with the decree on December 23, 1995

2Q/98 The World Bank has determined that the drafts of the new Electricity Law which have been produced to-date by KEGOC and the Ministry are very inadequate, and don't provide for an independent regulatory commission,

an independent regulatory commission

The Ministry has rejected the patch-work draft of the new Law on Electricity which has been proposed by the Ministry Staff and the KEGOC, and has declared that an entirely new Law must be written. Our draft is the only new draft.

Continued meetings with KEGOC management and senior people to assist in the understanding and development of the power pool, new pricing methodology, changed in the Electricity Law and the new State Regulatory Agency.

In meetings with the tariff people at KEGOC, got their support for a two-part transmission tariff.

2Q/98 Developed a draft MOU for USAID to submit to the Government to further promote our program of reform in the electric industry.

Met with the Vice President of KEGOC, who has the new task of writing a draft of the Electricity Law to offer to work for him, and to give him Hagler Bailly's draft of the Law.

Briefed the Ambassador on the status of the electricity sector prior to her meeting with Deputy Prime Minister Zhandosov who has expressed interest in continuing the reform of the sector.

The Deputy Prime Minister Dzandosov requested that the World Bank perform a review of the electric sector of Kazakhstan and advise the Government on continuing the reform of the sector in 1998.

USAID/Hagler Bailly arranged meetings with the significant members of the Ministry of Energy, Industry and trade and with executives of the industry to assist the Bank in their assessment.

The World Bank sent a team of experts to Kazakhstan in June to perform a review of the electricity sector, and to

for setting tariffs, has begun to see the methodology recommended in the Draft Tariff Report which was submitted last quarter in setting the tariffs for the transmission systems.

4Q/97 Submitted the new draft of the Electricity Law to the Ministry of Energy, Industry and Trade, after discussions with private companies in the sector.

This new draft of the Law on Electricity is to update the 1995 Law, and it calls for an independent regulatory commission, which has not resulted from the previous law.

1Q/98 Planned for the introduction of the new transmission tariffs with AMC.

3Q/98 Completed a new two-part transmission tariff report for the Anti-Monopoly Committee. This new tariff methodology is designed to address a number of the fundamental transmission pricing problems currently affecting private investors in the power industry and to provide for a more equitable allocation of costs.

Provided the Natural Monopolies Committee with additional assistance in response to regulatory questions raised during meetings in Astana.

licensing or adequate consumer representation

3Q/98 Consensus has developed among the members of the wholesale electricity market of the need for an independent regulatory agency. Discussions at recent industry meetings with private and state wholesale electricity enterprises, including KEGOC, have focused on the need for an independent regulator as part of the formation of a wholesale power pool.

	<p>make recommendations to the Deputy Prime Minister on the continued reform of the sector World Bank team met with Hagler Bailly to discuss USAID/Hagler Bailly approach to reform and restructuring, including Hagler Bailly's draft Electricity Law and Pool Market Rules</p> <p>The World Bank report recommended the adoption of a new Electricity Law that would create an independent regulatory commission They reviewed the draft versions of the Electricity Law produced by KEGOC and the Ministry of Energy, Industry and Trade, and commented that both are deficient The draft law produced by USAID/Hagler Bailly was said to be much close to what is required</p> <p>3Q/98 Traveled to Astana to present and discuss the recommended transmission tariff methodology with members of the Natural Monopolies Committee (formerly AMC) During these meetings Ms Popandopulo requested additional assistance on several specific questions related to the functions of the regulator during the privatization process</p>		
<p>Task 3 0 Restructuring and Privatization</p>	<p>4Q/96 MECI Minister Khrapunov appointed representatives of USAID/Hagler Bailly to his Organization Committee and Executive Group to concentrate on the organization and development of a competitive market power pool for the Republic of Kazakhstan Mr Khrapunov developed a rather aggressive work schedule and appointed USAID/Hagler Bailly to draft a Charter Agreement, Market Rules and Settlement Procedures, which were submitted to the MECI for discussion purposes Meetings and seminars have been ongoing with GOK representatives to discuss</p>	<p>2Q/96 Two large coal-fired power generation facilities were privatized Ermakovskaya Electric Plant was sold to Japan Chrome and Karagandiskaya Thermal #2 Plant was purchased by Ispat-Karmer Both Purchases have large manufacturing facilities that are served by their respective power plants</p> <p>4Q/96 USAID/Hagler Bailly conducted an all-day seminar for</p>	<p>2Q/96 The GOK adopted the Program of Privatization and Restructuring of the Electric Sector which specifies the procedure and sequence of the restructuring process as well as the principal approaches to privatization The program adopts many components recommended by USAID, including corporatization before case-by-case privatization</p> <p>4Q/96 USAID/Hagler Bailly has been</p>

specific issues and concerns in relation to the draft documents

1Q/97 Through a public tender, the transmission company has been offered for concession, two bids were received, the bids have been evaluated by the State Property Committee (GKI), and negotiations have started with the National Grid Company of England

As a member of the Minister Khrapunov's Organization Committee and Executive Group, advised on the type of power pool which would be adopted in Kazakhstan, and worked with the Ministry to draft a Charter Agreement, Market Rules and Settlement Procedures for the pool

2Q/97 ABB was announced to have agreed to terms with the Government to become the concessionaire which will operate grid for 25 years This occurred after the National Grid Company of England was announced as the first choice, but were unable to agree to the Government's terms

On May 13, 1997, the Ministry requested that the National Grid of England come back because negotiations with ABB/VEAG had broken down

4Q/97 Began daily meetings with KEGOC management and senior people to assist in the understanding and development of the power pool, new pricing methodology, changes in the Electricity Law and the new State Regulatory Agency

Continued weekly seminar of power industry people from KEGOC, the gencos, discos, and institute people to discuss changes in the industry, the law, regulation and tariffs Made a presentation to the seminar on the operation of different type of power pools

Meetings with the private owners of the industry produced positive support for the adoption of the wholesale market and the power pool

Continued to work with KEGOC daily to formulate the

several representatives of the AMC focusing on the need to create an independent SRC in order to set and enforce cost-of-service based tariffs, better organize and conduct further privatization and restructuring of the power sector, and prepare for a competitive market power pool

1Q/97 Provided documentation on the funds management for the pool

Provided draft licenses for generators, the pool and suppliers

A meeting of the founding members of the Kazakhstan power pool was held At the meeting, the draft power pool charter created by USAID/Hagler Bailly was discussed and unanimously adopted by the members

3Q/98 Completed and presented an analysis of the market approaches available to form an operating power pool in Kazakhstan

Provided Pavlodarnergo Service Company with a comprehensive strategic plan for privatization, the increase of collections, and improvement other vital business processes

Reserve pool established by wholesale market participants with assistance from Hagler Bailly Pool Charter and Market Operating Provisions drafted for review by the wholesale market members

requested to provide assistance in every aspect with regard to the formation of the power pool including financial/investment forecasting, data systems evaluation, and computer hardware assessments USAID/Hagler Bailly is the only foreign advisor appointed to this project by the GOK

1Q/98 Obtained commitment from the World Bank that they will support the reform of the power sector in Kazakhstan with a technical assessment in May

2Q/98 The Government has agreed to continue the reform of the electricity sector by continuing the privatization of the distribution companies Two additional distribution companies have recently been privatized, Kostenai and Karaganda

3Q/98 KEGOC and the members of the EIA agreed to establish a simple pool to trade reserves and to contract for the provision of ancillary services The successful operation of this pool will provide the electricity system with greater stability and reliability It is a first step towards the development of a fully functional power pool in Kazakhstan

The government announced plans to privatize the remaining state-owned distribution and generation companies, but did not release details of the privatization program or tender documents

wholesale market with the new rules which have been introduced by their new management to begin operation of the power pool

3Q/97 As part of a small working Group appointed by the Minister, have been working on the detailed implementation of the power pool

Worked with the new management of the newly formed KEGOC, the successor company to Kazakhstanenergo, to introduce the pool

1Q/98 Discussed with the World Bank the possibility of gaining the World Bank's support to continue the privatization of the REC's and the reform of KEGOC

Obtained commitment from the World Bank that they will support the reform of the power sector in Kazakhstan with a technical assessment in May

2Q/98 Participated in the CIS Power Engineering Congress in Almaty which discussed the reform in the electricity sector in the CIS countries

The World Bank has reinforced our ongoing recommendations to privatize the distribution companies as the only sure way to solve the problem of non-payments

The Government has changed the attitude of the past year in which it had tried other methods of solving the non-payments problem, because these methods have not worked. Now the Government has agreed to proceed with the privatization plan it had begun in 1996, and to privatize the remainder of the distribution companies during 1998

The request for assistance from a local REC to move towards privatization is an indication that the privatization of the distribution companies may proceed this summer

Met with the President and Vice President of

Pavlodarenergo and the two Deputies of the Akim of the Oblast to discuss their request for assistance in restructuring, reorganization and finding a strategic investor for the distribution company

3Q/98 Initiated task to assist the management of Pavlodarenergo in developing a privatization and collections improvement program Consultants from Price Waterhouse made several trips to Pavlodar and completed a comprehensive plan to attract private investment to the company while also improving current operations through the modification of collections and other procedures

Attended the conference sponsored by KEGOC and the Ministry of Energy, Industry, and Trade to announce the privatization of the remaining state-owned distribution and generation companies No details were presented by the government concerning the actual privatization process

Worked closely with the members of the Energy Industry Association (EIA) and KEGOC in the agreement to initiate a simple power pool to handle reserve and ancillary service transactions