

PN-ACJ-482
105964

COMPLETION REPORT FOR TASK ORDER 4

**Georgia Power Sector Reform
Contract No. LAG-I-00-98-00005-00
Task Order No. 4**

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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December 15, 1999

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CONTENTS

Subtask A.....	2
Subtask B.....	4
Subtask C.....	8
Subtask D.....	9
Subtask E.....	12
Deliverables Checklist.....	15
Procurement List.....	Attachment

COMPLETION REPORT FOR TASK ORDER 4

This is the Completion Report for Task Order 4 of Contract No. LAG-I-00-98-00005-00, which provides (Item V.3):

A detailed completion report is required within 30 days from the end of the contract from the advisor(s) that evaluates the gains made in each of the subtasks delineated in the Task/Work section giving a final status of benchmarks and tangible results.

We address each of the Subtasks defined in the Scope of Work in turn.

Subtask A - Restructuring

The goal of this subtask was

to restructure the power sector into efficient and effective enterprises conducive for private investment.

Major Efforts and Results

As Hagler Bailly noted in the Assessment under this Subtask, the Government of Georgia (GoG) had already accomplished much of the important work of restructuring the power sector when Task Order 4 began. By September, 1999, GoG had, for example, disaggregated the former State-owned, vertically integrated electric monopoly by separating the generation, transmission and distribution components of the sector. GoG had further restructured within these subsectors by creating separate Joint Stock Companies for most generating plants and for each of Georgia's approximately 65 distribution enterprises. GoG completed the physical restructuring of the sector with the Ministry of Fuel and Energy's 1998 functional separation of Sakenergo into transmission and dispatch/sales.

In that context Hagler Bailly, at USAID's direction, turned its attention under Task Order 4 to restructuring the relationships (commercial, contractual, and otherwise) between and among the enterprises in the electric sector. The most significant work to which Hagler Bailly devoted its efforts involved the creation, organization, staffing and development of the Georgian Wholesale Electricity Market, which President Shevardnadze authorized in Decree No. 421, and to which

Parliament gave legislative blessing in amending the Electricity Law in April, 1999. During Task Order 4, Hagler Bailly assisted the General Director of the Wholesale Market in organizing and staffing the organization, aided the Market in devising procedures, commenced setting up an accounting system for the Market, and provided equipment for Market operations.

The Georgia Wholesale Electric Market opened on July 1, 1999.

Services and Deliverables Provided Under the Task Order

The services specifically provided by Hagler Bailly under Subtask A included:

- A brief assessment of national government energy policies relevant to the power sector and the status of restructuring in the power sector.

Hagler Bailly completed and submitted to USAID for review and comment a draft "Assessment of the Status of Restructuring of the Georgia Power Sector" in December, 1998, followed by a Final Assessment in March, 1999.

- An updated Restructuring Implementation Plan.

Hagler Bailly prepared and submitted to USAID for review and comment a draft "Restructuring Implementation Plan for the Georgia Power Sector" in March, 1999, followed by a Final Plan in May, 1999.

- Wholesale Electricity Market organization and staffing.

Hagler Bailly worked with the Georgia National Electricity Regulatory Commission (subsequently renamed the "Energy" Commission) (GNERC) in the fall of 1998 in initially organizing the Wholesale Market. GNERC approved, for example, the Interim Board of the Market (made up of representatives of licensees, consumers, and Ministries) in September, 1998. The Interim Board, for its part, appointed Mr. Iveri Shalamberidze as General Director of the Market, and Mr. Shalamberidze, in turn, retained a Settlements Director (Iuri Dolidze) and a Market Funds Director (Omar Kheladze). GNERC subsequently approved a permanent Executive Board in December, 1998, consisting of representatives of generation, transmission, dispatch, and distribution licensees, direct customers, the Ministries of Fuel and Energy, Finance, and Economy, and the General Director of the Wholesale Market.

- Market Rules.

The April, 1999 amendments to the Electricity Law described the market, its participants, and its administration in broad outline. What remained was to flesh out the market's principles with rules that would address, in appropriate detail, the structures, functions, and activities of each of

the participants in the new market. Hagler Bailly began working with the Market Rules Committee (named by the Interim Executive Board in October, 1998) in November, 1998, in preparing draft Market Rules. The Rules went through several drafts and numerous rounds of review and comment by all interested parties in the months that followed. The Wholesale Market's Executive Board and GNERC approved the Market Rules in April, 1999. Shortly thereafter, Hagler Bailly completed another draft of the Market Rules, which it circulated to relevant parties during the summer of 1999.

- Procedures and accounting

Although the Market Rules provided a sound basis for the structure and overall operation of the Wholesale Market, Hagler Bailly also helped develop more specific procedures necessary to govern day-to-day operation of the market. The procedures covered such items as gathering and processing data on power generation and consumption, the preparation and delivery of bills to distribution companies and direct customers, and the disbursement of funds received from customers to generators and service providers. Hagler Bailly purchased an accounting program for the Market's use, and began training Market personnel in its use.

- Banking

Hagler Bailly prepared a Request for Proposal for Banking Services for use by the Wholesale Market, and worked with the Market's Executive Board and management in selecting banks to serve as custodians for market funds in a transparent process.

- Grid Code

Hagler Bailly developed a draft Grid Code, or technical standards, for the Georgia power sector, and circulated the Code for comment in August, 1999, as reflected in Hagler Bailly's "Report on the Grid Code for the Georgia Power Sector," completed and submitted to USAID in draft for review and comment in August, 1999, and followed by a Final Report in November, 1999.

- Sector Debt and Asset Grouping

Hagler Bailly conducted a major analysis of electric distribution sector debt, in connection with valuing distribution enterprises in preparation for offering them to strategic investors. Hagler Bailly also worked with GoG's financial advisor, Merrill Lynch, in evaluating groups of generation and distribution assets in packages for sale to strategic investors. These activities are described more fully in the discussion under Subtask D (Privatization), below, to which they more properly relate.

Subtask B – Legal and Regulatory Reform

The goal of this Subtask was

to develop the necessary decrees, legislation and regulations to allow: (i) the creation of separate power generation, transmission, and distribution enterprises, (ii) the formation of an effective Energy Regulatory Commission to oversee their operation, and (iii) ownership and investment by the private sector.

Major Efforts and Results

Hagler Bailly devoted substantial resources under this Subtask to preparation and advocacy of legislation, and technical support for GNERC.

Hagler Bailly worked with the Ministry of Fuel and Energy, GNERC, and Director of the Wholesale Electricity Market throughout the fall of 1998 and the winter of 1998-1999 in preparing and then revising (several times) draft amendments to the Electricity Law of 1997. These amendments were originally intended to accommodate the wholesale electricity market, which was not authorized or reflected in the existing legislation. The amendments also addressed certain respects in which experience under the original legislation had shown the Law should be clarified or strengthened. During January, 1999, the wholesale market amendments were merged with a separate set of amendments (on which Hagler Bailly also provided technical assistance) designed to give GNERC regulatory authority over natural gas supply, transportation, and distribution. GoG presented the resulting package of amendments to Parliament in March, 1999. Parliament approved the amendments on their third reading on April 30, 1999, and President Shevardnadze signed the amendments two weeks later.

Hagler Bailly also provided comments to GoG on a draft energy efficiency law prepared by the Ministry of Fuel and Energy.

Hagler Bailly provided continuous support for the GNERC commissioners and staff, literally on a daily basis. The major areas on which Hagler Bailly worked with the Commission included electric rates and tariff methodologies, both as a general matter and as specifically related to privatization; regulatory policies, chiefly respecting privatization issues; enforcement and public participation issues; regulatory issues relating to the Wholesale Electric Market; and technical assistance geared to capacity-building. Hagler Bailly also devoted resources to working with counterparts on the electric sector simulation model, a least-cost plan computer model licensed to the Ministry of Fuel and Energy, as detailed below.

Services and Deliverables Provided Under the Task Order

The services specifically provided by Hagler Bailly Subtask B included:

- A brief assessment of the legal and regulatory framework, including all government decrees, that guide the operation of the power sector.

Hagler Bailly completed and submitted to USAID for review and comment a draft "Assessment of the Legal and Regulatory Framework of the Georgia Power Sector" in December, 1998, followed by a final Assessment in March, 1999.

- An updated plan for continued legal and regulatory reform.

Hagler Bailly completed and submitted to USAID for review and comment a draft "Plan for Continued Legal and Regulatory Reform of the Georgia Power Sector" in March, 1999, followed by a final Plan in September, 1999.

- Technical assistance to complete the drafting and encourage passage of energy sector laws, including amendments to the existing electricity law and an energy efficiency law.

Hagler Bailly reported on its legislative efforts relating to the Electricity Law amendments, including the natural gas amendments, in its "Report on Amendments to the Georgian Electricity Law of 1997," submitted to USAID in June, 1999. Hagler Bailly had earlier provided USAID with a copy of the draft amendments to the Electricity Law, in "Report on Amendments to the Georgian Electricity Law of 1997," submitted in December, 1998. Hagler Bailly kept USAID informed on the parallel development of legislation to give GNERC jurisdiction to regulate natural gas supply, transportation, and distribution in reporting developments under Task Order 5. *E.g.*, "Report on Legislation to Regulate the Supply, Transportation, and Distribution of Natural Gas," June, 1999.

As noted in the "Report on the Georgian Law about Energy Efficiency" submitted to USAID in August, 1999, Hagler Bailly offered technical assistance to counterparts in connection with a draft energy efficiency law, including the preparation and submittal of comments on the law.

- Regulatory policies.

Hagler Bailly prepared regulatory policy papers to assist GNERC in formulating the appropriate regulatory response to contemporary issues created by privatization. The papers included: "Terms and Conditions of Service for Electric Distribution Service," draft submitted to USAID for review and comment in September, 1999, followed by a Final Report in November, 1999; "Report on Regulation of Rates and Aspects of Utility Service in the Privatization Context," draft submitted to USAID for review and comment in September, 1999, followed by a final report in November, 1999; and "Market Power and Privatization in the Georgia Electric Sector,"

draft report submitted to USAID for review and comment in September, 1999, followed by a Final Report in November, 1999.

- Model licenses.

Hagler Bailly provided GNERC with technical assistance respecting licensing issues, including the provision of model licenses for electric generation, transmission, and distribution, under Delivery Order 14. Hagler Bailly continued to assist the Commission with licensing issues under Task Order 4, including providing model licenses for the import and export of electricity. Parliament created these classes of licenses with the 1999 amendments to the Electricity Law. "Model Licenses for the Import and Export of Electricity," draft report submitted to USAID for review and comment in September, 1999, followed by a Final Report in November, 1999.

- GNERC Organization, Staffing, Budget, Procedures, and Enforcement.

Hagler Bailly consulted with GNERC on an ongoing basis throughout the term of Task Order 4 respecting procedural issues relevant to regulatory agencies in general, and GNERC in particular. Some of this technical assistance is reported in "Report on Organization, Staffing, Operations, and Procedures of the Georgian National Energy Regulatory Commission," draft report submitted to USAID for review and comment in August, 1999, followed by a Final Report in November, 1999; in "Report on Regulatory Enforcement Procedures of the Georgian National Energy Regulatory Commission," draft report submitted to USAID for review and comment in August, 1999, followed by a Final Report in November, 1999; and in "Report on the Annual Report of the Georgia National Electricity Regulatory Commission," submitted as a Final Report to USAID in April, 1999.

- Rates and tariffs.

As noted above, Hagler Bailly provided technical assistance to GNERC respecting electric rate and tariff issues on an ongoing basis, as the continuation of work commenced when the Commission was created in 1997. This technical assistance helped GNERC to implement two rate increases. The first, effective in October, 1998, raised retail rates by one-third, from 4.5 tetri/kWh to 6.0 tetri/kWh. The second increase, effective in June, 1999, raised retail rates for Telasi to 9.0 tetri/kWh, and for elsewhere in the country to 8.3 tetri/kWh. Although these rates still fell short, according to USAID's calculations, of full cost recovery for all sectors, the rates represented a significant improvement over rate levels earlier prevailing.

Hagler Bailly also targeted technical assistance to GNERC's new authority to regulate the supply, transportation, and distribution of natural gas, conferred by the 1999 legislation. "Report on Natural Gas Tariff Methodology," Final Report, submitted to USAID in September, 1999.¹

- Least-cost planning.

Under a prior contract with Burns & Roe, Inc., a least-cost plan computer model was licensed to GoG. Hagler Bailly designed and implemented a training program, for GNERC staff and others, utilizing the computer model. Hagler Bailly reported on the training program in "Least Cost Plan Training Program for the Georgia Power Sector," submitted to USAID in June, 1999.

- Study tours.

Hagler Bailly organized and funded a number of study tours for GNERC commissioners and staff under Task Order 4, as follows:

- GNERC Chairman Eristavi and Commissioners Chomakhidze and Tsintsadze attended the CEE/NIS conference for regulators in Warsaw, Poland, in December, 1998.
- GNERC Commissioner Paata Tsintsadze participated in a study tour of Power Pools in the United Kingdom and the northeastern United States in January, 1999. This study tour, sponsored by the United States Energy Association, met with representatives of the Electricity Pool of England and Wales and Midlands Electricity, and toured the West Burton Power Station. In the U.S., the delegation met with United Illuminating and the Independent System Operator for the New England Power Pool. Commissioner Tsintsadze accompanied a large group of representatives of the Georgian Wholesale Electric Market, including the General Director and the Market Funds and Settlements Managers.
- In February/March, 1999, GNERC Chairman Eristavi, Commissioners Chomakhidze and Tsintsadze, and GNERC staff members Mzia Suknidze (Administrative Manager) and Zoia Gurielidze (Energy Specialist) attended the Winter Meetings of the National Association of Regulatory Utility Commissioners in Washington, DC. While in Washington, the delegation also met with the World Bank, the National Association of Consumer Advocates, Washington Gas Light Company, the District of Columbia Corporation Commission, the Federal Energy Regulatory Commission, and USAID.

¹ Technical assistance to GNERC for natural gas regulation was added to the Scope of Work by the amendment to Task Order 4.

- GNERC Commissioner Chomakhidze attended the NARUC Tariff and Steering Committee Meetings in Vilnius, Lithuania in May, 1999.
- GNERC Commissioner Tsintsadze attended the NARUC Licensing and Competition meeting in Budapest, Hungary in June, 1999.
- GNERC Commissioners Chomakhidze and Tsintsadze attended the joint NARUC meeting on Tariffs and Pricing and Licensing and Competition in Yerevan, Armenia, in October, 1999.

Subtask C – Commercialization

The goal of this subtask was

to strengthen the commercial operation of these new power sector entities by working with them and the Georgian National Electricity Regulatory Commission (GNERC) to create legally separate corporate enterprises, develop workable contractual relations between them, introduce effective financial and accounting systems and metering, billing, and collections systems, and ensure that tariffs are sufficient to cover costs and investments.

Major Efforts and Results

Hagler Bailly focused its efforts under this Subtask on expanding and fine-tuning the commercialization pilot project in Rustavi, and on exporting the lessons learned at Rustavi to other distribution enterprises in Georgia. In addition, Hagler Bailly (through its subcontractor, Carana Corporation) developed a Chart of Accounts, consistent with International Accounting Standards, for natural gas companies, and introduced the Chart of Accounts to Georgia National Gas Company, including training. Carana Corporation also introduced the Chart of Accounts earlier developed by Hagler Bailly to four Georgian electric enterprises.

Services and Deliverables Provided Under the Task Order

The services specifically provided by Hagler Bailly under Subtask C included:

- A brief assessment of the status of commercialization, including corporatization, of the generation, transmission, dispatch, and distribution enterprises in the power sector.

Hagler Bailly completed and submitted to USAID for review and comment a draft "Assessment of the Status of Commercialization of the Georgia Power Sector" in January, 1999, followed by a Final Assessment in March, 1999.

- An updated Commercialization Plan.

Hagler Bailly completed and submitted to USAID for review and comment a draft "Commercialization Improvement Plan" in February, 1999, followed by a Final Plan in May, 1999.

- Pilot commercialization program

Originally conceived under Delivery Order 14 to involve fewer than 4,000 customers, Hagler Bailly expanded the Rustavi commercialization pilot program to include nearly 10,000 customers, or a quarter of all customers of Relasi, the Rustavi distribution company. Data gathered over a period of more than a year showed that with metering, billing, collections put on a modern, sustainable basis, the rate of cash collections could be increased to nearly 100%. Hagler Bailly evaluated options for completing the commercialization pilot in a Memorandum, "Options for Completion of the Rustavi Commercialization Pilot Project," submitted to USAID in July, 1999.

- Implementation of Commercialization Plan

Hagler Bailly circulated its Commercialization Plan for Distribution Enterprises to distribution managers throughout Georgia, and held a workshop for those managers in Tbilisi in July, 1999, as reported in "Report on Implementation of Commercialization Plan for Electric Distribution Companies in the Georgia Power Sector," submitted to USAID in September, 1999.

Subtask D – Privatization/Independent Private Power Promotion

The goal of this subtask was

to improve economic efficiency within the power sector by transferring asset ownership and management to the private sector in ways that raise badly-needed capital investment and by introducing competition by creating independent private power developers to generate and sell power to consumers.

Major Efforts and Results

Under this Subtask, Hagler Bailly contributed significantly to three major privatization offerings by GoG during the term of Task Order 4: the sale of Telasi, the electric distribution enterprise for the City of Tbilisi; the offering, during 1999, of the bulk of generation assets and all remaining distribution enterprises in the electric sector; and the sale of Tbilgazi, the natural gas distribution enterprise serving Tbilisi.²

For the Telasi privatization, Hagler Bailly offered significant technical assistance prior to and during the offering to GNERC, to provide a framework for evaluating the competing proposals, when received. This assistance included providing a methodology for comparing different rate proposals by prospective buyers, evaluating the time value of cash offer prices, and techniques for normalizing different proposals for rehabilitation investments. GoG's privatization of Telasi culminated with sale of the enterprise to AES Corporation in January, 1999.

With the successful privatization of Telasi, GoG decided to offer most of the remaining electric sector assets during 1999. Hagler Bailly worked closely with GoG's financial advisor, Merrill Lynch, in several respects. First, Hagler Bailly provided draft text describing electric sector regulation and the new wholesale electric market for the Information Memorandum prepared by Merrill and its consultant, Kantor. Second, Hagler Bailly discussed the structure and proposed operation of the Wholesale Electric Market at length with Merrill representatives. Third, Hagler Bailly representatives conducted a tour of distribution enterprises (Gori, Kutaisi, Khashuri, Zestaphoni, Rustavi, and Marneuli) for Merrill Lynch and its consultants, as they prepared to offer distribution systems for sale. Fourth, Hagler Bailly provided Merrill Lynch with detailed physical data on all Georgian distribution systems outside of Tbilisi. Fifth, Hagler Bailly analyzed the level of investment necessary to commercialize several distribution enterprises (including those serving the cities of Kutaisi, Gori, and Rustavi), and calculated the returns on the commercialization investments. Sixth, Hagler Bailly conducted an exhaustive valuation of Georgian distribution enterprises, including the identification of accumulated debt by those enterprises, for use by Merrill and potential investors. Seventh, Hagler Bailly met with and provided information to investors conducting due diligence in Georgia respecting electric sector assets. Finally, Hagler Bailly worked with GNERC to update rates for numerous generation facilities that were offered for sale to investors, particularly rates for Gardabani, the thermal station.

Hagler Bailly continued to offer technical assistance to the Ministry of State Property Management in connection with the ongoing privatization of Tbilgazi, the natural gas distribution enterprise for the City of Tbilisi. Tbilgazi represents the largest distributor of natural gas in Georgia. Hagler Bailly completed the Information Memorandum suitable for distribution

² Hagler Bailly's work on the Tbilgazi privatization resulted from an amendment to Task Order 4. Under the amendment, Hagler Bailly continued the privatization work commenced under Task Order 5.

to potential strategic investors, and prepared tender documents suitable for use by the Ministry when it formally invited offers for Tbilgazi from private investors. With GoG's release of the formal tender for Tbilgazi, Hagler Bailly contacted potential investors world-wide in an intensive effort to secure interest in the asset.

Services and Deliverables Provided Under the Task Order

The services specifically provided by Hagler Bailly under Subtask D included:

- A brief assessment of the status and issues related to expanding private sector participation in generation, transmission, dispatch, and distribution enterprises of the power sector.

Hagler Bailly completed and submitted to USAID for review and comment a draft "Assessment of the Status of Privatization of the Georgia Power Sector" in January, 1999, followed by a Final Assessment in March, 1999.

- An updated Privatization Plan for increasing private sector participation and private investment in the sector.

Hagler Bailly completed and submitted to USAID for review and comment a draft "Privatization Plan for the Georgian Power Sector" in July, 1999, followed by a Final Plan in May, 1999.

- Distribution enterprise valuation

Hagler Bailly conducted a far-ranging valuation of Georgian distribution enterprises throughout 1999. The most time-consuming aspect of this valuation was the identification of sector debt, which proved difficult due to the sad state of bookkeeping at many of the enterprises in question. Hagler Bailly's work, which it shared with Merrill Lynch and with counterparts, particularly the Ministry of State Property Management, is reflected in the Final Report, "Financial Restatement and Valuation of Georgia Electric Distribution Companies," submitted to USAID in November, 1999 (draft earlier submitted for review and comment in September, 1999).

- Tbilgazi natural gas distribution system

As noted, Hagler Bailly prepared several documents in connection with privatization of Tbilgazi, including an Information Memorandum and draft tender documents. Hagler Bailly attached copies of these documents, translated copies of which had earlier been provided to the Ministry of State Property Management, Tbilgazi, and other counterparts, in its September, 1999 "Report on Privatization of Tbilgazi Gas Distribution Company."

Subtask E – Improved Fuel Supply Enterprises

The goal of this subtask was

to support the operations of the power sector by working with the fuel supply sub-sectors of the energy sector (oil, natural gas, coal, geothermal, etc.) as needed to develop appropriate national policies, legislation, corporate structures, commercial operations, and private ownership to ensure that the necessary fuels for power generation are provided efficiently.

Major Efforts and Results

In early 1999, in response to a request from GoG, Hagler Bailly and USAID amended Task Order 5 to remove references in Subtask E to training and institutional development of GoG agencies to prepare them to negotiate transit pipelines issues, and to focus instead on providing technical support to the oil and gas regulatory agency to be named in the oil and gas legislation. At the time USAID and Hagler Bailly assumed that passage of oil and gas legislation was imminent..

The parties' assumption that the oil and gas regulatory agency would soon be formed proved unfounded. Parliament did not adopt the Law on Oil and Gas until April 1999, and the President did not sign the Law until May. Article 7(3) of the new Law called for the creation of a "State Agency for Regulation of Oil and Gas Resources . . . within six (6) months of the Effective Date of this Law." As of date of preparation of this report, the new agency has not yet been born.

Hagler Bailly was unable to assess the capabilities of an agency that did not yet exist under Task Order 5. Instead, we evaluated the capabilities of the GoG institutions possessing some experience and expertise respecting the matters to be regulated under the new Law, principally the Ministry of Environment and Natural Resource Protection, the Ministry of Fuel and Energy, and Saknavtobi. Hagler Bailly stated its conclusions are contained in its "Assessment of the Institutional Capabilities of the State Agency for Regulation of Oil and Gas Resources," completed and delivered to USAID in July 1999. Briefly, we concluded that, upon its nativity, the Agency will start from a position of having virtually nothing (no staff, no expertise at oil and gas regulation, little or no existing regulatory framework, and no funds). It will need virtually everything (staff, expertise, equipment, and a suitable framework, to name a few) to begin to fulfill its functions.

Hagler Bailly also provided the outline of training, organization, staffing, and rules and regulations for the new agency in its "Report on Training and Study Tours for the Georgian State Agency for Regulation of Oil and Gas Resources," completed and submitted to USAID in July 1999.

Services and Deliverables Provided Under the Task Order

The services specifically provided by Hagler Bailly under Subtask E included:

- Assessment of national government energy policies and the status of restructuring, legal/regulatory reform, corporatization, commercialization, and privatization in the fuel supply subsectors.

Hagler Bailly completed and submitted to USAID for review and comment a draft "Assessment of National Government Energy Policies and the Status of the Fuel Supply Subsectors of the Georgia Power Sector" in August, 1999, followed by a final Assessment in September, 1999.

- Fuel sector reform plan.

Hagler Bailly completed and submitted to USAID for review and comment a draft "Fuel Supply Reform Plan" in September, 1999, followed by a final Plan in October, 1999.

- Technical assistance, including support for the passage of laws to encourage private sector investment in Georgia's energy resources.

As discussed under Subtask B, above, Hagler Bailly offered substantial technical assistance to counterparts in formulating amendments to the Electricity Law of 1997, now renamed the Georgian Law on Electricity and Natural Gas. Among other things, the Law provides for the formation and development of a wholesale electric market and the regulation of the supply, transportation, and distribution of natural gas. These legislative initiatives will promote private sector investment in Georgia's energy resources.

Also, as discussed in the Completion Report for Task Order 5, Hagler Bailly devoted substantial resources during 1998 and 1999 to legislation that will promote private investment in Georgian energy resources, including oil and gas resources that may serve as fuel for the Georgian power sector. In order of importance, the legislation on which Hagler Bailly offered technical assistance included:

Law on Oil and Gas. As USAID is aware, Hagler Bailly has pursued various, ever-changing drafts of oil and gas legislation with counterparts, with oil companies doing or seeking to do business in Georgia, and with other donor agencies for several years prior to 1999. This (sometimes frustrating) exercise reached its culmination with Parliament's adoption of the Law on Oil and Gas in April, 1999. President Shevardnadze signed the Law on May 3, 1999. The Law represents the first comprehensive law in Georgia to address upstream petroleum operations. Prior to adoption of the law, investors faced a number of difficulties: a vacuum of government policy respecting oil and gas exploration and development; the existence of several, sometimes conflicting legislative acts purporting to regulate the oil and gas industry; the absence

of any law or regulation whatsoever with respect to certain important areas; the absence of a legislative basis for production sharing agreements; and a dual system of contracting and licensing which potential investors found confusing because existing law did not clearly identify who was authorized to negotiate in the State's behalf. To large degree, the Law on Oil and Gas addresses these deficiencies and sets out the essential elements needed to support oil and gas exploration, development, and production.

Eminent domain legislation. Under the Soviets, eminent domain in Georgia was unknown and unnecessary, because all property and virtually all enterprises were owned by the State. To the extent, therefore, that it became necessary to use lands for the construction and operation of oil and gas pipelines, highways, power lines, water mains, or telephone lines, the State-owned enterprises were generally free to build and operate such facilities without concern for land ownership. With independence, however, and especially as privatization of public lands has commenced, it has become necessary and appropriate for Georgia to adopt legal mechanisms to allow appropriation of private lands for public purposes. This is especially true respecting oil and gas pipelines, given the interest in Georgia as a corridor for the transportation of oil and gas from the Caspian to western markets. Hagler Bailly consulted with counterparts in preparing, and then in revising, a law that confers the power of eminent domain on those seeking to build pipelines, roads, highways, transmission lines, and other items of infrastructure. Parliament adopted the Law of Georgia on Expropriation of Property for Public Necessity in late July 1999.

Environmental liability legislation. The World Bank, in connection with funding of an Energy Sector Adjustment Credit, required GoG to adopt legislation establishing strict liability related to the transit of oil and gas products through Georgia. USAID determined that Hagler Bailly should assist the Georgians in this effort. As consultation with counterparts on this legislative initiative commenced, however, GoG indicated that broader legislation was appropriate to cover potential environmental liabilities arising from other potential sources. World Bank and USAID concurred with this approach. Accordingly, Hagler Bailly worked with key personnel from GIOC, the Ministry of Environmental Protection and Natural Resources, the Ministry of Culture's Board of Protection and Usage of the Relics of History and Culture, the Chairman and staff experts of the Parliamentary Committee on Environmental Protection, the Georgian Young Lawyers' Association, technical experts from the World Bank, and the Chairman and staff of Parliament's Committee on Constitutional and Legal Affairs and the Rule of Law to develop and to revise the draft legislation. Parliament adopted the Georgian Law on Obligation to Compensate for Harm Caused by Hazardous Substances in late July 1999.

- Support for implementation of improved natural gas tariff and pricing policies.

Hagler Bailly provided substantial technical assistance to GNERC respecting natural gas regulation both before and after Parliament adopted legislation conferring regulatory jurisdiction. This technical assistance generally consisted in familiarizing GNERC with the natural gas

industry, providing technical information relating to tariffs and rate methodologies, and supplying the Commission with draft rules and terms of interim licenses for natural gas supply, transportation, and distribution.

Deliverables Checklist

Task Order 4 provides (under item V, "Reporting Requirements") for the submittal of itemized deliverables, as follows.

1. Work Plans.

Hagler Bailly submitted detailed work plans for Task Order 4 to USAID in November, 1998. USAID approved the work plans by letter dated February 11, 1999.

2. Monthly and Quarterly Status Reports.

Hagler Bailly has submitted Monthly and Quarterly Status Reports to USAID, as specified in the Task Order.

3. Completion Report.

This is the Completion Report required by the Task Order.

4. Technical Reports.

a) Environmental Assessment.

Hagler Bailly prepared a Draft Environmental Assessment for Task Order 4 pursuant to USAID's Environmental Procedures (22 CFR 216), and circulated the Draft EA to USAID and relevant counterparts in March, 1999. Hagler Bailly completed and submitted the Final Environmental Assessment, which addressed the comments of the Georgia Ministry of Environment and the Mayor of the City of Rustavi, Georgia, in May, 1999.

b) Reform Status Assessments for each Subtask area.

Hagler Bailly prepared and submitted assessments for each of the Subtask areas, as reported in the deliverables sections of the detailed discussion of each Subtask, above.

c) A procurement list presenting limited critical commodities (e.g., equipment) that improve the performance of regulatory or selected oil & gas entities.

The procurement list for Task Order 4 is attached to this Completion Report.

d) Restructuring Implementation Plan.

Hagler Bailly prepared and submitted to USAID for review and comment a draft "Restructuring Implementation Plan for the Georgia Power Sector" in March, 1999, followed by a Final Plan in May, 1999.

e) Power Market Rules.

Hagler Bailly completed and submitted to USAID for review and comment a draft report, "Market Rules for the Georgia Wholesale Electric Market," in September, 1999, followed by a Final Report in November, 1999. The Report includes the Market Rules as adopted by the Executive Board of the Wholesale Electricity Market and as approved by GNERC.

f) Expanded Grid Code.

Hagler Bailly developed a draft Grid Code, or technical standards, for the Georgia power sector, and circulated the Code for comment in August, 1999, as reflected in Hagler Bailly's "Report on the Grid Code for the Georgia Power Sector," completed and submitted to USAID in draft for review and comment in August, 1999, and followed by a Final Report in November, 1999.

g) Regulatory Commission report on organization, staffing, operations, and procedures.

Hagler Bailly completed and submitted to USAID for review and comment its draft "Report on Organization, Staffing, Operations, and Procedures of the Georgian National Energy Regulatory Commission" in August, 1999, followed by a Final Report in November, 1999.

h) Three (3) Regulatory policy papers

Hagler Bailly submitted the three regulatory policy papers as follows:

- "Terms and Conditions of Service for Electric Distribution Service," draft submitted to USAID for review and comment in September, 1999, followed by a Final Report in November, 1999
- "Report on Regulation of Rates and Aspects of Utility Service in the Privatization Context," draft submitted to USAID for review and comment in September, 1999, followed by a final report in November, 1999

- “Market Power and Privatization in the Georgia Electric Sector,” draft report submitted to USAID for review and comment in September, 1999, followed by a Final Report in November, 1999.

i) Model licenses for generation, transmission, and distribution

As noted above, Hagler Bailly prepared model licenses for generation, transmission, and distribution for GNERC under Delivery Order 14. Under Task Order 4, however, Hagler Bailly prepared model licenses for the import and export of electricity, as reported in “Model Licenses for the Import and Export of Electricity,” draft report submitted to USAID for review and comment in September, 1999, followed by a Final Report in November, 1999.

j) Updated tariff methodologies for electric and gas.

Hagler Bailly’s work with GNERC in connection with rates and tariffs is described in Subtask B, above. See also “Report on Natural Gas Tariff Methodology,” Final Report, submitted to USAID in September, 1999.

k) Regulatory enforcement procedures.

Hagler Bailly prepared and submitted to USAID for review and comment its draft “Report on Regulatory Enforcement Procedures of the Georgian National Energy Regulatory Commission” in August, 1999, followed by a Final Report in November, 1999.

l) Regulatory Commission annual report.

Hagler Bailly submitted its “Report on the Annual Report of the Georgia National Electricity Regulatory Commission” in April, 1999.

m) Commercialization Improvement Plan.

Hagler Bailly completed and submitted to USAID for review and comment a draft “Commercialization Improvement Plan” in February, 1999, followed by a Final Plan in May, 1999.

n) Pilot metering/billing replication/expansion plan.

Hagler Bailly submitted the following:

- “Commercialization Improvement Plan for Electric Distribution Companies in the Georgia Power Sector,” draft submitted to USAID for review and comment in September, 1999, followed by a Final Report in November, 1999.

- “Commercialization Plan for Electric Distribution Companies in the Georgia Power Sector,” draft submitted to USAID for review and comment in September, 1999, followed by a Final Report in November, 1999.
- “Comprehensive Report on Commercialization of Distribution Enterprises in the Georgia Power Sector,” submitted to USAID as a Final Report in September, 1999.
- “Report on Implementation of Commercialization Plan for Electric Distribution Companies in the Georgia Power Sector,” submitted to USAID as a Final Report in September, 1999.

o) Privatization Plan

Hagler Bailly completed and submitted to USAID for review and comment a draft “Privatization Plan for the Georgian Power Sector” in July, 1999, followed by a Final Plan in May, 1999.

p) Fuel Sector Reform Plan.

Hagler Bailly completed and submitted to USAID for review and comment a draft “Fuel Supply Reform Plan” in September, 1999, followed by a final Plan in October, 1999.

Conclusion

This report completes Hagler Bailly’s work under Task Order 4.

Attachment

Procurement List

PROCUREMENT LIST

**Georgia Power Sector Reform
Contract No. LAG-I-00-98-00005-00
Task Order No. 4**

Final Report

Prepared for:

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

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December 15, 1999

TO 4 PROCUREMENT LIST

As specified in Section V.4.c ("Reporting Requirements"), a procurement list of limited commodities is required under Task Order 4. The counterparts, the Government of Georgia, did not require procurement of commodities or equipment on a large scale.

Hagler Bailly purchased the following items under Task Order 4 for counterparts in the Georgia Wholesale Electric Market.

Description	Quantity
Desktop computers: Gateway GP7-450/Pentium III 450/64 MB 100 MHz SDIMM/Desktop/3.5" FDD/HDD 8.4 GB Quantum/SVGA ATI Range Turbo Pro 98 MB/CD 17z-40x/Sound Blaster Audio PCI 64D/Monitor 17" Crystalscan/Keyboard Win 105 Keyboard/Mouse MS Intellimouse/Win 98	5
Software: Peachtree Complete Accounting Plus Time and Billing	2