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**RUSSIA POWER SECTOR RESTRUCTURING AND
PRIVATIZATION PHASE II: TRANSITION AND
INITIAL IMPLEMENTATION**

**NIS Institutional Based Services Under the Energy
Efficiency and Market Reform Project
Contract No CCN-Q-00-93-00152-00**

Electric Power Sector Restructuring and Privatization

Delivery Order No 1

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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July 1- February 28, 1996

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HAGLER BAILLY INFORMAL RESPONSE TO APRIL 21 DRAFT PHASE 2 WORK PLAN

**RUSSIA POWER SECTOR RESTRUCTURING AND PRIVATIZATION
PHASE II: TRANSITION AND INITIAL IMPLEMENTATION
TIME PERIOD 1 July 1995 to 28 February 1996**

A INTRODUCTION

This task covers a number of activities that are intended to continue certain critical work that was started during Phase I and that will continue to be needed, as well as new work that is part of the implementation of the plan for restructuring. Hagler Bailly is proposing a new project management structure that takes into account lessons learned during Phase 1. In our view, these lessons include

- ▶ **Management Consultants** For greater effectiveness, the "joint working group" approach should be dropped in favor of core consultants acting in a management consulting capacity advising a client. Now that the basic directions for the power sector have been defined, the implementation phase is best served by teams of goal-oriented consultants who are able to respond rapidly to requirements. These teams are not formalized for the duration of the project, and they can be altered and added to as need dictates. This approach will also facilitate interaction with AID.
- ▶ **In-country consulting emphasis** The relative emphasis on TDY consultants vs resident consultants will be reversed from what it was in 1994. The core consultants will be resident in Moscow, thus ensuring continuity of knowledge transfer, and substantially less use will be made of short-term consultants.
- ▶ **Full-time Russian Team Involvement** The intended involvement of full-time Russian professionals was not achieved during Phase 1, partly because RAO EES did not seek to use the opportunities for such involvement that were set out in the Work Plan. Although finding the right people who can commit all, or virtually all of their time, and who will receive a vote of confidence from all sides, will be difficult, we believe that a strong effort must be made to achieve this. People with line responsibilities in the power sector would be good candidates, and it might be possible to find such individuals outside of Moscow. The institutes in and outside Moscow (e.g. Irkutsk, Volgograd).
- ▶ **Subcontractor Management** The Joint Working Group system contributed to a situation in which subcontractors worked with their Russian counterparts on the agreed Work Plan without sufficient interaction with Hagler Bailly. A larger HB resident team and new operating guidelines with the subcontractors' Moscow offices will enable us to have more interaction and oversight.

This proposal covers the following six tasks

Task 1	Completion of Phase 1 Final Report
Task 2	Investment Promotion (Tasks 2A and 2B are covered in Annex B)
Task 3	Tariff Reform and the Wholesale Market
Task 4	Commercializing the Power Sector
Task 5	Support of New Federal Regulatory System
Task 6	Hagler Baily Moscow Office Operations (1 Jan 1995 to 29 March 1996)

B MANAGEMENT STRUCTURE

Recognizing that Phase 2 covers a set of transition activities, and that it is difficult to project over the next two years how USAID's involvement in Russian power sector restructuring might evolve, we are proposing a "transition management structure" Our expectation is that by October, USAID, the GORF and RAO EES will have a clearer picture of longer term requirements We are proposing that three senior consultants be resident in Moscow for a eight-month period

It is important both to distinguish between Tasks 1-5 and Task 6, which is the on-going, and essentially fixed expenses, attaching to the Hagler Baily Moscow Office We will maintain a Moscow office as long as USAID wishes, but there are certain classes of expenditure that involve commitments running up to 12 months

Fig 1 shows a proposed management staffing structure for Phase 2 of Power Sector Restructuring and Privatization Fig 2 shows the proposed staffing structure for the Moscow Office for the eight months of Phase 2

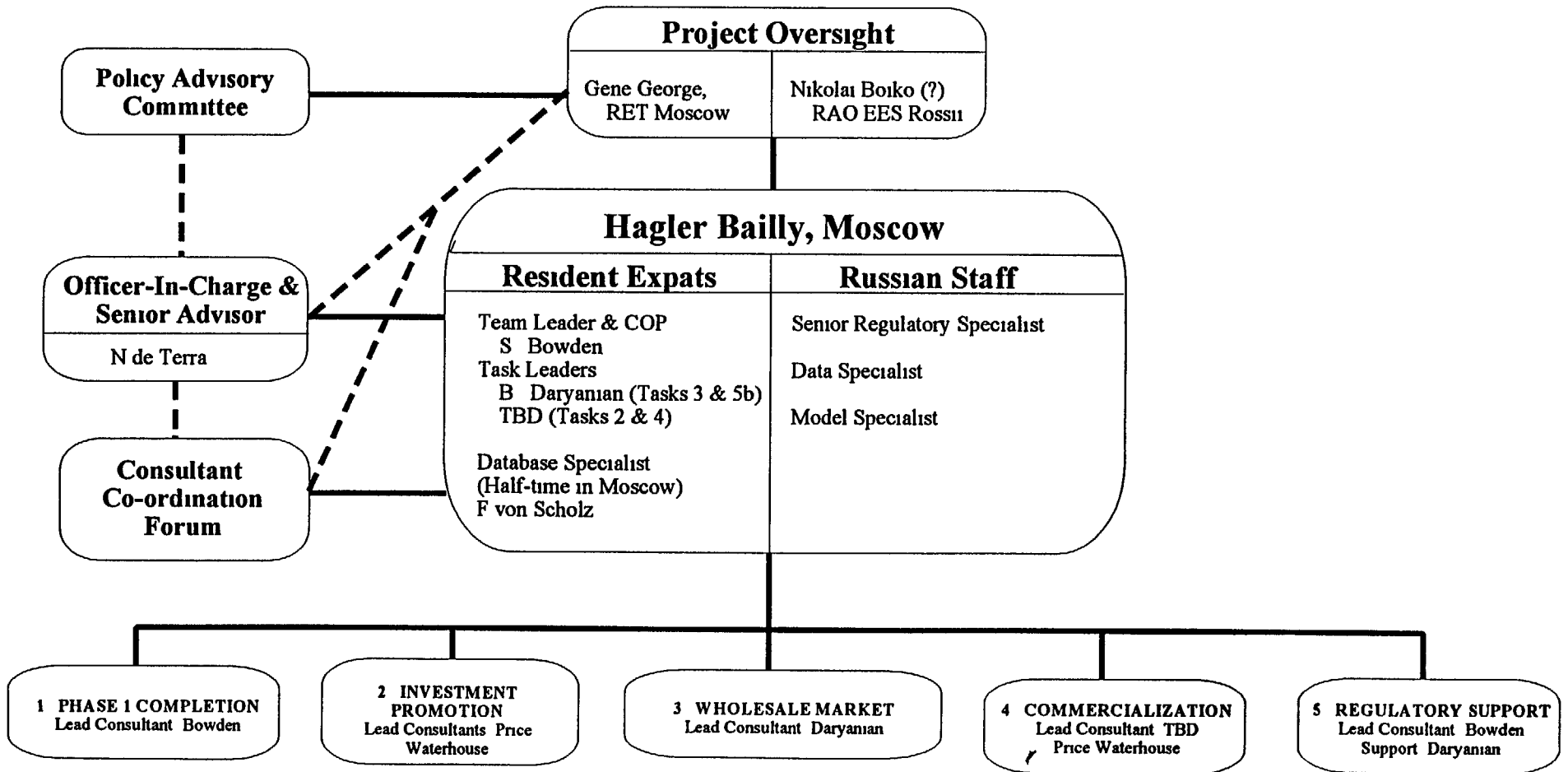
Explanation of Fig 1

We propose to designate one of the three resident consultants as lead consultant for each tasks, thus Stan Bowden will take the lead for Tasks 1 and 5, as well as for Task 6 Bahman Daryanian will take lead responsibility for Tasks 3 and 5(b) Tasks 2 and 4 will be coordinated by [TBD] We plan to take a lead role in Task 2(c) working closely with PW Our role in Tasks 2(a) and 2(b) would be co-ordination to ensure that other tasks are benefitting fully from the Limited Review Frank von Scholz, who has been closely involved in the development of the database used by REPMOFF, is proposed to be in Moscow for four of the eight months Niels de Terra, who will cease to be IBASE Project Director in early June, is proposed as Senior Advisor to and Officer-in-Charge for this task From July on he will be stationed in a new Hagler Baily office in Dublin Initially, he would assist in the defining the functions and modus operandi of the Policy Advisory Committee, and he would also provide senior level interaction with the UK Know-How Fund's contractor in London

We have already put forward the proposal to create a Policy Advisory Committee composed of representatives from GKI, the new FEC, Anti-Monopoly Committee, RECs, RAO EES Rossi, Ministry of Finance, Ministry of Economy and possibly other bodies This has been welcomed by the Ministry of Economy and by RAO EES

Figure 1

PHASE 2 Delivery Order 1 July 1995 to 29 February 1996



Explanation of Fig 2

We propose to maintain essentially the same administrative structure in our Moscow office, with a Russian Office Manager, a driver, a translator/admin asst and additional translators as needed

C OVERVIEW OF THE SIX TASKS

TASK 1- PHASE 1 FINAL REPORT AND DISSEMINATION

TIME PERIOD 15 June to 1 August 1995

Objective Complete and print English and Russian versions of the Final Report Deliver briefings on the report in Moscow and elsewhere in Russia

Description This small task completes the work that has been funded under the core contract since March 2nd It includes 10 days of time in June for Stan Bowden as well as ODCs associated with making presentations with RAO EES Russia to interested bodies

TASK 2 INVESTMENT PROMOTION

Task 2 A - Financial, Accounting and Financial Review

Objective The objective as stated is, "promoting investment into the Russian power sector by establishing accounting standards and systems and limited reviews " For several reasons we feel that this objective is too narrow

- ▶ A comprehensive "limited review" of the power sector should (and can) have more uses beyond presentation to a small group of potential investors and an investment bank (as envisioned by Price Waterhouse in Annex B) If designed and used wisely the limited review can provide value to regulators, legislators, subsidiaries and others involved in industry privatization For example, the limited review could become an authoritative document on ownership and could be invaluable in providing a definitive picture of asset ownership
- ▶ We also think that the objective of promoting investment into the Russian power sector should be broader and include various types of investors, investment opportunities, and investment vehicles As written now, the primary investment opportunity and vehicle to be promoted is an investment in the equity shares of a large and integrated monopoly utility Investment promotion activities should provide benefits to other entities within the electric power sector We think that by promoting other types of investments and vehicles, e.g equity in some of the 72 AO Energos, acquisition of generating assets, development of joint ventures, creation of debt instruments or project financing, the objectives of restructuring and privatization will be much better met (This is further discussed in Task 2C below)

- ▶ Effective investment promotion should include an emphasis on corporate financial management and the financial analysis of the financial accounting information that is compiled through the limited review

Description and Approach Price Waterhouse staff will conduct the Limited Review. Their approach, as outlined in more detail in Annex B, involves the creation of a task force comprised of staff from RAO EES Rossi and its affiliates, Price Waterhouse consultants and accountants. According to Price Waterhouse, one of the main objectives of the Limited Review is to develop the capability within RAO, as well as subsidiaries, to prepare financial statements on a regular basis (quarterly) in compliance with IAS standards. The responsibility of actual preparation of the financial statements under IAS standards will be gradually shifted during the project execution from Price Waterhouse experts to the local RAO accountants so they will be able to continue this work on an on-going basis after the completion of the project. Price Waterhouse consultants will focus not only on financial statement preparation, but also on the effective use of financial information. Hagler Bailly input into this task will consist of some limited input in the planning of the task, coordination of this task with other tasks, especially commercialization, and sharing of information and data acquired whenever possible.

Subtasks are further outlined in Annex B.

Task 2B - Financial and Accounting Seminars

Objective Disseminate information regarding accounting standards and financial reporting systems throughout RAO EES Rossi.

Description and Approach Two seminars on financial and accounting practices at locations outside of Moscow will be held. The locations are to be determined in consultation with RAO EES Rossi. Price Waterhouse will take the lead in this task and the seminars will be very similar in content and approach to the accounting and finance seminars that were conducted in Phase 1.

Task 2C - Investment Promotion Tours

Objective Promoting investment in the power sector by arranging a tour to major international financial centers, i.e. Europe, the United Kingdom, and Hong Kong, to present the investment opportunities available in the Russian power sector and discuss the financial position of the sector. This tour will supplement the tour to financial centers in the United States that took place during Phase 1.

Comment We believe that investment promotion in the power sector can be advanced by broadening the objective beyond investment tours to include investment promotion tasks conducted in Moscow and elsewhere in Russia.

Description and Approach Arrange a tour for RAO EES Rossi executives to visit international financial and capital markets. The purpose of the meetings will be for RAO EES

Rossii to present the prospects for investment, including specific projects and to discuss the financial position of the companies within the sector. Meetings will be arranged and information will be sent to investors in advance of meetings.

The success of the Phase 1 Investment Promotion tours was based upon careful preparation and knowledge about potential investors. This is the approach to be adopted for follow-on investment promotion tours. Well in advance of the tours, consultants will establish dialogues with different types of potential investors and develop an understanding of their criteria and issues. This information will be communicated and discussed with RAO. Concurrently, information on RAO and other power sector entities will be developed for use by investors (including the limited review which may or may not be completed for these tours). In addition to financial information, investors can receive other information of interest on power sector restructuring, information contained in the Joint Energy Alternatives Study, and copies of prefeasibility studies already conducted.

It is recommended also that the task be broadened to include outreach to investors in Moscow, both foreign and Russian. Fund managers for newly-capitalized funds totaling several billion dollars have been established with offices in Moscow. These funds managers will be interested in investment opportunities in the power sector and relationships with them should be established.

It is also recommended that executives from other power sector enterprises be included in the investment tours. Many AO Energos would like to promote their own investments. The investment community is also very interested in learning about opportunities beyond RAO EES Rossii.

The task will be lead by Hagler Bailly. Hagler Bailly would plan and organize the tours with participation from Price Waterhouse. Price Waterhouse would be responsible for preparing any financial information that would be distributed and would be present during the tours. Price Waterhouse would also be responsible for ensuring that all of the investment promotion activities meet securities regulations in each country visited. Jointly, Price Waterhouse and Hagler Bailly will prepare RAO and other executives for the meetings.

1 Investment Tour #1 London, Frankfurt, New York (October 1995)

This would be a tour for approximately eight senior level power sector executives to three financial centers over a ten day period. The target audiences would be a combination of portfolio investors and fund managers. Selected strategic investors would also be included. Investment banking firms would be used to assist in the planning and coordination of the tours (at no cost to USAID). RAO and other executives attending will be well coached in advance of their presentations.

2 Investment Tour #2 Tokyo, Hong Kong (January 1996)

This would be a similar tour for approximately eight senior level power sector executives to two financial centers over a ten day period. The target audiences would be the same as the earlier tours except that in Tokyo an emphasis on Japanese government agencies would be added (Japan EXIM, JICA, and others). A Japanese consultant will be hired to assist in the planning and organization. In Hong Kong investment banking firms will be invited to participate in the organization.

3. Relationships with the Moscow Investment Community

Numerous fund managers are now located in Moscow and Russian investment firms are also forming. An ongoing task throughout the period would be to establish a dialogue and relationship with this group of interested investors and work with RAO and other power sector entities with them. An important objective is to increase the level of private Russian investment in the power sector and this is one way of reaching that objective.

4 Ad-Hoc Assistance Responding to Investment Proposals

To the extent requested, contractors (both Hagler Bailly and Price Waterhouse) could provide valuable assistance by providing advice to RAO and other power sector entities on how to respond and deal with specific investors and proposals.

TASK 3 - TARIFF REFORM AND THE WHOLESALE MARKET

Objectives Implementing tariff reform and assisting in the establishment of a wholesale electric power market through refinement and use of the Russian Electric Power System Market Operation and Financial Framework (REPMOFF) model which was developed during Phase 1.

Description Assist RAO EES Rossi in finalizing their plans for the wholesale market. This task will require developing within RAO EES Rossi an understanding of the wholesale market operation and a full understanding of the REPMOFF model. Methods of system dispatch development and selection of tariff models including seasonal, time of day and efficiency incentive tariffs for both national and regional dispatching will be developed. Market operation and financial settlement methods will be developed. The contractor will assist RAO EES Rossi in developing reporting systems on wholesale market operations suitable for accounting reports to a regulatory agency.

1 Introduction

The primary objective of this task is the establishment of a competitive wholesale power market in Russia. To achieve this objective, it is essential that the lead consultant fashion a general consensus among various parties in Russia responsible for restructuring, privatization, and operation of the electric power system. The designated implementing agent under the proposed

project structure is RAO EES Rossi, which is envisioned to be transformed into a transmission company after divesting its generation assets, and which will have the overall responsibility for the operation of the competitive wholesale power market

The initial effort by lead consultant in Task 3 will focus on creation and development of a Wholesale Market Team with active participation of RAO EES Rossi. In parallel, Task 5(b) is meant to generate consensus and to facilitate a smooth transformation, which entails the lead consultant working closely with other parties, especially Federal Energy Commission (FEC), to define and implement the initial wholesale market pool

2 Wholesale Market Team

The responsibilities of the Wholesale Market Team include

- To specify the ultimate competitive industry structure and the principal transition phases
- To establish the initial wholesale market pool
- To help define and facilitate establishment of federal and regional regulatory regime
- To provide modeling analysis support
- To provide regulatory policy support

Wholesale Market Team will consist of the following participants

American Team Members

- 1 Wholesale Market Lead Consultant (Bahman Daryanian, full-time)
- 1 Data Analyst (Frank von Scholz, full-time)
- 1 Programming Support (RCG/Hagler Bailly, Inc employee/consultant, part-time)
- 1 Programming Support (RCG/Hagler Bailly, Inc employee/consultant, part-time)
- Up to 3 American Industry Experts (Consultants to Hagler Bailly, Inc, part-time)

Russian Team Members (Moscow Based)

- 5 full-time equivalent Wholesale Market Team Core Consultants (seconded to Hagler Bailly from FEC, RAO EES and TBD organizations - 3 full time and 3 part time Russian participants)

- 1 Regulatory and Industry Specialist (Hagler Bailly employee/consultant, full-time)
- ▶ 1 Modeling Specialist
- 1 Data Analyst

2.1 Overall Delineation of Sub-Tasks

Task 3 will be performed under the direction of the Lead Consultant for the Wholesale Market tasks. The work of the Lead Consultant will be supported by data and analysis assistants. At crucial junctions, industry experts will be called upon to initiate recommendations and to review the overall direction of the work. The specific sub-tasks are as follows:

- Define objectives, requirements, composition, and work-plan of the Wholesale Market Team
- Develop a framework to address issues such as the initial wholesale market structure, operations and dispatch, pricing, and financial settlements
- Enhance modeling and analysis capability to address the relevant issues
- Train the Russian participants on the use of the modeling and analysis tools
- Execute analyses and report results
- Translate results into action

TASK 4- COMMERCIALIZATION

Objective Develop, with RAO EES Rossi, plans for commercializing the sectors of the power system identified for privatization, i.e., AO Energos, generating companies, transmission company and service companies

Description and Approach The transition of the existing system into individual operating companies requires assistance in establishing the units as private, commercial entities. This includes all sectors of the industry - generation, distribution, transmission, wholesale market making and services. This very large and ambitious undertaking will require an approach with several steps and years of implementation that extend beyond the scope of this project. The management approach to this task will be to emphasize ways in which management techniques, procedures and policies can be transferred and organizational capabilities built. The initial strategic planning will require a team of commercialization experts and participants from the power sector. The implementation tasks will require on-site advisors working side-by-side with company management, training by specialists, creation of special task forces, and acquisition of automated technologies.

The overall task will be jointly implemented by Hagler Bailly and Price Waterhouse. Hagler Bailly will be responsible for overall task management, commercialization strategy and implementation work plans and integration of this task with the other privatization and restructuring tasks. Price Waterhouse will be responsible for most of the initial implementation tasks at RAO and the AO Energos. Price Waterhouse personnel will be expected to participate in the "task force" for the strategy and work plan and Hagler Bailly staff may participate in some of the initial implementation tasks. The Hagler Bailly staff will consist of a co-team leader, expatriate experts in organizational management, corporate finance, and operational management and Russian experts from existing or newly formed Russian institutions. Price Waterhouse staff will consist of a co-team leader, and senior and junior business administration and financial analyst specialists.

1 Strategic Planning and Implementation Work Plan The first step will be to form a "task force" comprised of RAO EES Rossi, selected AO Energo representatives, representatives from Russian institutes, Hagler Bailly and Price Waterhouse. Over the first three months the task force will develop an overall strategic plan for commercializing the industry and an accompanying work plan for its implementation. Included in the strategy will be an assessment of the current status of commercialization (including review of work already conducted in this area by other consultants), an analysis of needs, priorities and targets and recommendations for reaching commercialization objectives in the context of the proposed industry structure. The strategy will focus on how best to transfer and build capability in techniques, policies and procedures for corporate financial, organizational (including human resources), and operational management. Because many of the generating companies have not yet been corporatized, a strategy for their legal corporatization will be addressed in the overall strategy. In addition the functioning of the market making organizations as commercial-like entities is also important and will be considered in the strategy.

The work plan will be an action plan for implementing the strategy. It will include a detailed approach, schedule, milestones, and staffing plan. It will be integrated and sequenced with the other tasks of the overall Privatization and Restructuring Project. The work plan will also include estimates for the purchase and installation of computer hardware and software systems and other procurement items that may be of a critical nature. Hagler Bailly will take the lead on this task.

2 Implementation Tasks Before completion of the commercialization strategy and accompanying work plan, implementation of some tasks should begin. By the end of the second month, two AO Energo's should be selected for implementation of selected tasks. It is recommended that the first tasks include the following, but the final selection would be made following joint discussion with RAO EES Rossi.

At RAO EES Rossi

- Implementation of recommendations made during Phase 1 for addressing the arrears problem at RAO EES Rossi and AO Energos. Implementation will be primarily through on-site consulting with managers of the accounting and financial

departments Price Waterhouse will take the lead on this task

- Analysis of tax structure and taxation procedures at RAO EES Rossi and AO Energos and recommendations for improved tax planning management Price Waterhouse (tax department) will take the lead on this task
- Development of recommendations for implementation of customer service and marketing capabilities at RAO EES Rossi and AO Energos Price Waterhouse will take the lead on this task

At Two AO Energo's (to be selected)

- Development of cash management policies and organizational structures This will be accomplished through on site advisors, training, and installation and use of computer software Price Waterhouse will take the lead on this task
- Development of securities management strategies and dividend policies (if AO Energo is planning on entering the securities market within the near term) Price Waterhouse will take the lead on this task
- Development of recommendations and an action plan for management and incentive compensation systems Lead to be determined
- Assistance with new investment planning procedures and policies or arrangement of financing for specific investment projects Hagler Bailly to take the lead on this task

Implementation According to the Commercialization Strategy

- Implementation of new tasks, according to the strategy and work plan would begin in month six Observations and insights gained from the early implementation tasks will be incorporated wherever possible It is not expected that full implementation of the work plan will be completed by February 1996, in fact only a small portion of it would be started implementation (Hagler Bailly to lead this task with specific responsibilities to be determined)

TASK 5(a) - REGULATORY STUDY TOURS

Objectives Assist USAID and other donor activities (i.e. USAID Russia assistance on natural monopolies and the UK Know-How Fund) that are supporting the start-up of the new Federal Energy Commission Examination of regulatory options in countries that are at the leading-edge and selection of elements suitable for adoption in Russia is a key objective

Description The Contractor will work with the USAID Russia-funded contractor implementing

the Natural Monopolies program and the UK Know-How Fund consultants to arrange study tours to the UK and the US to review and understand the most recent regulatory developments. The tour(s) will visit the regulatory agencies, and in the U S visits will include federal and state agencies and representative companies that are being regulated. The goals of the tour will be to develop a general understanding of the nature of regulation in each country, the relationship between the regulators and the regulated entities, tariff regulation mechanisms, and opportunities for customer participation in the rate-making process. At the conclusion of this task, the contractor will assess the need for and the applicability of U S and U K regulatory developments for Russia at Federal and Regional levels.

Because it is unlikely that senior Russian officials will ever be available for more than two weeks, we propose to carry out a tour to the UK in September 1995 and a tour to the U S in late January-early February 1996. Putting the U S tour last also increases the opportunities to review new, innovative developments, which may not exist five months earlier. We assume that the UK Tour would in fact be the tour that the Mission has already discussed in general with the Ministry of Economy, but that this tour would have expanded participation.

Regulatory Tour to the UK Our initial proposal for entities and individuals would be as follows:

- 1 National Power
- 2 PowerGen
- 3 Scottish Hydro (Mr Kutuvov expressed special interest)
- 4 National Grid Co
 - A David Jeffries - Chairman
 - B David Jones - Chief Executive
 - C Tony White - Strategic planning (was at J Capel during the privatization)
 - D Charles Davies - Regulatory Affairs
 - E Colin Ray - Head of the system support business and ancillary services (Topics where NGC is moving ahead in to bring greater competition into the procurement of services on both the demand and supply sides)
 - F Claire Fielding - International
- 5 (Possible interest to some participants) NGC's pumped storage subsidiary, which is probably being spun off this year
- 6 Two "suppliers" (distribution companies) to be identified (Among other things, their views on embedded generation will be of interest, as will as their positions on the sale of NGC, and on the companies' activities on the demand-side (For some participants))
- 7 GSM (Grid System Management, part of NGC, but operates independently on other side of Chinese wall)) John Grundy Possibly also the head, John Scott
- 8 OFFER Prof Littlechild, and, if possible, a separate meeting with David Walker

9 City of London (For some participants_ We will obtain recommendations from Tony White at NGC

10 Mission Energy and (11) ENRON in London and other IPP players in the U K market (For some participants)

12 EDF London (IPP activity, for some participants)

13 McKenna's (key law firm in the UK privatization) Fiona Woolf

14 OFGAS Eileen Marshall, who is head of Regulation and Business Affairs, was the No 2 at OFFER In addition, the head of OFGAS, Clare Spottiswoode, is an authority on the subject of Regulation in the UK

We plan to use a UK-based contact as a consultant to arrange meetings and to ensure that meetings at a high level will, in fact, materialize This individual has advised us to allow 6-8 weeks to ensure getting our group on the calendars of people at the Littlechild level The group would be accompanied by an escort interpreter and by Stan Bowden This activity would be coordinated with PHB, the Know-How Fund consultant

U S Regulatory Tour

Specifics to be developed at a later date

TASK 5(b) FEDERAL ENERGY COMMISSION WHOLESALE MARKET MODEL

Objective Support USAID/Russia's technical assistance on natural monopolies and the British Know-How Fund in their work with the Federal Regulatory Agency and Anti-Monopoly Committee utilizing the Russian Electric Power Sector Market Operational and Financial Framework (REPMOFF) model to understand the operation of and tariffs associated with a wholesale market

Description The contractor will work with the British Know-How Fund contractor utilizing the REPMOFF model to assist in developing market evaluation and review programs and procedures for the Regulatory Agencies The operation of the wholesale market under different scenarios will be examined including federal and regional wholesale tariff designs, retail tariff designs and rates of return models Recommendations will be made defining training and consultancy assistance required of the regulatory agencies

1 Introduction

The same Wholesale Market Team described above will be used for this task

2 Overall Delmeation of Sub-Tasks

In parallel to Task 3, the Lead Consultant for that task will work closely with other key parties in Russia in order to generate consensus and facilitate the establishment of the initial wholesale market pool. The main sub-tasks are as follow

- Define objectives, requirements, composition, and work-plan of the team
- Apply modeling and analyses tools to study market structure alternatives, prices, and generator profitability
- Study alternative compositions of divested power generating companies
- Facilitate Implementation of the Wholesale Market and the Power Pool
- Define the initial Pool Area
- Organize the initial generating companies
- Develop the generator Bidding System
- Devise the related dispatch rule
- Specify financial pool settlement rules
- Define contracts for primary and ancillary services

3 Regulatory Policy Support

It is evident that none of the restructuring and privatization initiatives, especially establishment of the initial Wholesale Market Pool, can be developed in a legislative, regulatory, and administrative vacuum. For instance, divestment of generation assets and ultimate creation of a competitive electric power market requires the establishment of regulatory and commercial institutions supported by regulatory and trade related legislation.

In our view, the UK's relevant experience in privatization of its electric power sector and operation of a wholesale market pool, provides a good learning model for what we have set to achieve in Russia. Hence, we suggest that the Regulatory Study Tour to the UK planned under Task 5 (a) be carried out as soon as possible, i.e. in September of this year. It is envisioned that the Lead Consultant of the Wholesale Market tasks will undertake a preparatory trip to UK to make the necessary arrangements and maximize the learning impact of the visit by the Russian participants. (Outside of this project, the proposed Senior Advisor will participate in the 4-5 July Conference in London on the Future of the UK Electricity Industry organized by the Institute of Economic Affairs.)

The main objectives of the trips are to understand the following in relevance to the reformed power industry structure in Russia

- Structure of the privatized electric power industry in UK, including Generation Companies (GENCO), Regional Electric Companies (REC) or Distribution Companies (DISCO), National Grid Company (NGC), and the Office of Electricity Regulation (OFFER)
- Operation of the electric power system in UK, including the Bidding System, Dispatch Rules, Financial Settlements, Contract Rules, and Ancillary Services
- Forms of institutional support provided by the federal and regional regulatory agencies, commercial institutions, and the related regulatory and trade related legislation
- Evolution of the UK system in terms of competitiveness, market access, and impact on the customers

4 Modeling, Analysis, and Data Support

In developing a sound policy on privatization and restructuring of the Russian electric power system, it is essential to gain insights into the operational and economic features of different market structures and privatization schemes. The Modeling, Analysis, and Data Support Group will be instrumental in shedding light on relevant issues and providing a framework for addressing those issues. The main function of the group is to provide analytical support to other members of the project including those in Wholesale Market, Finance/Investment, and Legal/Legislative Groups. Examples of the types of assistance to be provided by the Modeling, Analysis, and Data Support Group include

- Collecting and presenting data describing the physical and economic features of the Russian electric power system
- Determining the physical features of optimal system operations under different power pool and market structures. The physical features include total and zonal generation and consumption, plant usage, transmission utilization, and available reserves for given day-types or seasons
- Calculating plant and company cash flows, total and zonal power costs, and total and zonal revenue requirements under different scenarios
- Evaluating generation settlement prices, system average, zonal wholesale, and zonal retail prices under different pricing methodologies, and identifying factors that affect the price levels in different zones
- Studying interplay of various zones in terms of generation, consumption, exports, and imports under different scenarios, and determining impact of exports and imports on prices
- Assessing the value and economic viability of each of reconstituted generating companies under various power market structures

- Developing numerical performance measures and financial indicators to be used in ranking and comparison of different companies or market entities
- Evaluating financial implications of alternative legal and regulatory schemes
- Investigating the implications of alternative transmission pricing and settlement schemes and wheeling rates
- Simulating and assessing the impacts of different types of contracts recommended as part of the power market mechanism, including options and futures

It is hoped that the capabilities of the Modeling, Analysis, and Data Support Group will be utilized both in formulation of the final wholesale power market structure, and also in the planning, development, and implementation of specific elements comprising the market

An important side benefit of this effort will be training of the Russian team in modeling and analysis methodologies currently practiced in the US, and transfer of related technology and know how

5 Support Group and Responsibilities

Team members will consist of system and data analysts with experience in electric power system engineering and economics. Full-time members of the team will include two Americans and two Russians. Other groups would each assign a team member as the group liaison with the Modeling, Analysis, and Data Support Group.

The main tasks of the Group include

- 1 Collection and assembly of data and maintenance of a database system at the RCG/Hagler Bailly's Moscow office. An initial responsibility will be assembly of all data previously collected by the different groups involved with the JEAS and the Privatization projects
- 2 Application of modeling tools including REPMOFF and other power system simulation and financial analysis software used for detailed analysis
- 3 Development and application of windows-based spreadsheet programs for simple analysis and result presentation

Database management will be the responsibility of at least one American and one Russian team member. It is hoped that other Russian colleagues involved in the privatization project will facilitate the task of data collection from their respective institutions.

Modeling, analysis, and presentation will be performed in direct response to the needs and requirements of the wholesale power market, financial/investment, and legal/legislative groups. At least one American and one Russian team member will be involved in problem formulation,

modeling, analysis, and presentation of results

TASK 6 - MOSCOW OFFICE OPERATING COSTS

A detailed breakdown of our on-going operating costs has been submitted earlier. Our budget Summary, Annex A, includes \$ 369,000 for Moscow Office costs from January 1995 through February 1996.

BUDGET SUMMARY

ANNEX A

HB USE ONLY

Level of Effort (days) Costs

ASK 1		
S Bowden	15	14,564
B Daryanian	15	14,791
Report Dissemination Expenses		10,000
Subtotal		39,355

TASKS 2A & 2B (PW) 3,967 2,867,462.59

ASK 2c		
Manager (HB)	71	70,009
Organizer	58	57,190
Other U S Participants (PW)	79	77,897
Direct Expenses		246,400
Subtotal		451,496

LABOR \$ 1,886,489.55
TRAVEL \$ 980,974.04
+ ODC

ASK 4		
Oper Mgmt Expert (HB)	40	39,442
Org Mgmt Expert (HB)	40	39,442
<u>Price Waterhouse</u>		
Labor	480	374,853
Direct Expenses		206,884
Subtotal		660,620

NOT ANALYZED FOR POSSIBLE DUPLICATION

SKS 3 & 5

includes all Moscow resident staff costs and Moscow office costs, which will also support the other tasks)

BOR

resident Advisors (Moscow)

Bowden	176	173,543
Daryanian	176	173,543
No 3 - to be determined	176	173,543

other Experts

F von Scholz -- REPMOFF	132	63,330
R Coleman -- REPMOFF	44	43,386
Senior Consultants	110	108,464
Senior Advisor	30	29,581
Other Technical Resources	70	55,973

Russian Experts

database analyst	154	25,156
programmer/analyst	154	34,304
regulatory specialist	154	57,173
wholesale mkt implem	550	204,188
Energy Economics Institute	250	89,100
Subtotal		1,231,282

OTHER DIRECT EXPENSES (HB)

resident Advisor Travel/Per Diem		278,800
other Labor Travel/Per Diem		191,760
regulatory Study Tours (2)		120,000
rental Moscow Office Costs		70,000
Subtotal		660,560

SUBTOTAL 3,043,314

MOSCOW OFFICE OPERATIONS COSTS

costs Incurred January - February 1995		81,000
average Monthly Labor/Facilities Costs (3/95 - 2/96)		288,000
Subtotal		369,000

TOTAL BUDGET w/o TASKS 2A & 2B \$ 3,412,314
TOTAL BUDGET INCL 2A & 2B \$ 6,279,777

Anney B

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3 May 1995

PROPOSAL FOR A "LIMITED REVIEW" OF THE FINANCIAL STATEMENTS OF THE RAO EES ROSSII GROUP AND FOR ACCOUNTING ADVICE AND ASSISTANCE

- 1 Further to the recent request for a proposal to perform a "limited review" of the financial statements of the RAO EES Rossii Group (the Group) for the year ended 1 January 1995 (or later period when available) and to provide accounting advice and assistance, we set out in this document our proposed approach
- 2 We have been requested to prepare a proposal for a "limited review" of the Group's financial statements for the year ended 1 January 1995 or later period when available. This "limited review" of the Group's financial statements should be performed in accordance with standards for review assignments promulgated by the AICPA of the United States of America. The review should seek to gather business, financial and accounting information of interest to potential investors, particularly in regard to divergencies between Russian Accounting Regulations (RAR) and International Accounting Standards (IAS)

Our proposed approach and deliverables

- 3 We believe that this objective is best achieved through a six step approach as follows
 - i) A Planning analysis as the fundamental first step of this task, the conclusions of this step will provide the framework of the work plans for the ensuing steps
 - ii) The preparation of RAR financial statements of the Parent company of those of the Group's subsidiaries and affiliated companies in accordance with the formats prescribed by IAS
 - iii) The identification and adjustment of major divergencies between RAR and IAS valuation criteria and disclosure requirements and quantification of differences (where necessary also on the basis of broad estimates to the extent practicable, given the information available and other possible constraints), both at the Parent Company and significant subsidiaries and affiliated companies
 - iv) The preparation of pro-forma IAS consolidated financial statements
 - v) The "limited review" of the pro-forma IAS consolidated financial statements of the Group and of related disclosures and supplementary information. (As a limited review is substantially less in scope than an examination in accordance with auditing standards promulgated by the AICPA of the United States of America, as required by these standards we will not be in a position to express an "opinion" on these financial statements)
 - vi) The preparation of reports on the "limited review" performed and on the accounting advice and assistance provided, containing

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PROPOSAL FOR A "LIMITED REVIEW" OF THE FINANCIAL STATEMENTS OF THE RAO EES ROSSII GROUP AND FOR ACCOUNTING ADVICE AND ASSISTANCE

- a) Prospectus-type information of interest to a merchant bank and potential foreign investors, including the Group's ownership structure,
 - b) Description of accounting and financial management information systems,
 - c) Discussion of quantified and unquantified divergencies from IAS, description of issues arising and of any limitations or changes to the planned scope of the "limited review", as defined in the agreed Terms of Reference,
 - d) The recommended next steps for the preparation of fully audited IAS consolidated financial statements, including suggestions regarding the introduction of new or revised accounting principles, policies, practices, systems and procedures,
 - e) Suggestions for additional training of the Group's accounting personnel.
- 4 The information included in our reports will be intended only for your use as aid donors (but not for public disclosure) and by the Group's management. If required, and so authorized by you and the Group's management, our report on the "limited review" will be made available to the Group's merchant bank and to a restricted number of persons who will be specifically identified as prospective investors in the Group and who will sign "confidentiality" and "waiver of responsibility" statements
- 5 The prospective investors will be deemed to be sufficiently expert to understand the inherent risks involved in acquiring any securities in the Group on the basis of possibly incomplete information. Our report on a "limited review" is not a substitute for the due diligence that potential investors may wish to undertake in connection with making their investment decisions. We will not accept responsibility to any party to whom our report may be shown in whole or in part, or into whose hands it may come.
- 6 Given the size and complexity of the Group and in view of our belief that this task should constitute the first stage of the introduction of the intended regular IAS reporting by the Group, we suggest that the project be carried out by task forces. Such task forces should comprise Group's personnel, both from the Parent company and subsidiaries, that will be assigned to future preparations of IAS financial statements and Price Waterhouse consultants and accountants.

7 Price Waterhouse consultants and accountants will provide

- i) Project management expertise,
- ii) Direction and monitoring of activities of the various task forces,
- iii) Advice and assistance in the choice of accounting principles and practices to be followed,

who's going to do the work?

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PROPOSAL FOR A "LIMITED REVIEW" OF THE FINANCIAL STATEMENTS OF THE RAO EES ROSSII GROUP AND FOR ACCOUNTING ADVICE AND ASSISTANCE

- v) Assistance in the definition, design and implementation of new accounting systems and procedures, including those relating to the consolidation process, and of related manuals, standard forms and instructions,
- v) Formal training of the Group's accounting personnel assigned to the task forces and to the future preparation of IAS accounting and reporting information

Our team for EES Rossii

8 The Price Waterhouse team that will serve the Group will be selected from both our Russian firm and our Electricity advisory practice in the USA and will include

- i) Electricity industry specialists who will bring the knowledge of the best accounting and reporting practices in the industry
- ii) Russian accounting specialists who will analyze the Group's accounting data help interpret RAR and deal with any accounting problems arising,
- iii) International accounting specialists who will assist in the preparation of IAS financial statements and help the Group identify accounting policies apt to present its financial position and results of operations in the best way
- iv) Accounting advisors with experience in the preparation of consolidated financial statements on a full IAS basis, of complex international and national groups,
- v) Auditors and accountants with experience in the performance of audits and "limited reviews" of complex public utility entities to AICPA or other applicable standards,
- vi) Analysts and programmers capable of designing and assisting in the implementation of appropriate software if required,
- vii) Professional trainers who will assist in the design and delivery of training courses to the Group's accounting personnel as required

Our previous experience

9 As already described in our prior capability statement, our teams have performed a great variety of relevant assignments, including

- i) Restructuring for privatization,
- ii) Valuations of shares for public or private placement,
- iii) Economy, efficiency and effectiveness reviews,

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3 May 1995

PROPOSAL FOR A "LIMITED REVIEW" OF THE FINANCIAL STATEMENTS OF THE RAO EES ROSSII GROUP AND FOR ACCOUNTING ADVICE AND ASSISTANCE

- iv) Due diligence reviews and limited reviews, audits of financial statements,
- v) Advice on accounting principles and practices and assistance in the preparation of IAS financial statements, including consolidations,
- vi) Business and marketing strategy reviews,
- vii) Change integration,
- viii) IT strategy advice and implementation assistance.

Level of Effort

10 We will be able to start the work within three weeks from signing the contract and the Terms of Reference and complete the assignment within six months. The proposed time table presupposes adequate cooperation on the part of the Group, the timely formation of appropriately qualified task forces and the availability of properly equipped office space on the Group's premises

11 We have estimated that the proposed assignment will require a team of some 30 consultants, accountants and auditors for a total of about 4,000 person-days. See Appendix 1 for details.

12 Definition of labor categories

Labor categories as set in Appendix 1 are being defined as follows

Partner

Shall have an appropriate business school degree and at least twelve years experience in the practice of audit, accounting services and financial/business reviews

Manager

Shall have an appropriate business school degree and at least six years experience in the practice of audit, accounting services and financial/business reviews

Assistant manager/Senior

Shall have an appropriate business school or relevant certified accountant degree and at least three years experience in the practice of accounting services under supervision of accounting managers

Staff (Assistant 1, 2)

Shall have an appropriate college degree and basic knowledge of accounting with up to three years of relevant accounting services under supervision of senior/managers

RAO EES Interim project
Limited Review

Month	Partner*	SM/M	AM/Snr	Staff	Total Pers/Hrs
Staff required	2	5	13	10	30
June	80	300	300	300	980
July 95	200	880	2288	1760	5128
Aug	200	880	2288	1760	5128
Sept	200	880	2288	1760	5128
Oct	200	880	2288	1760	5128
Nov	200	880	2288	1760	5128
Dec	200	880	2288	1760	5128
Total Hrs	1280	5580	14028	10860	31748
	152	2	10	1	
	195,686	2,150	286,232	173,022	1,132,513

222 25 p/n

* Requires ES-6 rates

TOTAL PERSONNEL

Partner	2
SM (2 expats, 1 local)	3
M (expats)	2
AM	7
Senior	6
Staff (A1 A2)	10
Total	30

Estimated Expenses Budget for RAO EES proposal *

Air Travel	Hotels	Meals	Miscelenious	Total
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* All fees and expenses are shown free of VAT and special Tax which are payable by PW/Moscow under Russian Federation Tax Regulations and expected to be charged by us to donor

**RAO EES Interim project
Training Level of Effort**

	Course 1	Course 2	Course 3
Frequency times	6	1	1
Instructors, Business Administration Specs, pers	5	5	5
Junior Financial Analyst, pers.	1	1	1
Preparation, days per instructor per course	3	3	3
Course duration incl. travel, days per pers per course	5	5	5
Total course preparation, instructors*days*frequency	90	15	15
Total course duration, pers *days*frequency	180	30	30
Total Training, days			360
Total Training, hrs			2880