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**OBSERVATIONS AND RECOMMENDATIONS  
FOR THE  
COMMERCIALIZATION OF THE  
RUSSIAN ELECTRICAL POWER SYSTEM**

Prepared for:

**RAO EES Rossii  
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Appendix A

Russian Educational Institutions Teaching Western Business Courses

## EXECUTIVE SUMMARY

In late 1995 and early 1996, Hagler Bailly Consulting, Inc. (HBC) surveyed five electrical distribution companies (“Energos”) and four generation facilities (“Gencos”) which were created in 1992 as stand alone enterprises when the electricity sector was privatized.

The purpose of this review was to recommend programs for improving the ability of these power sector companies to operate on a profitable, self-sustaining basis in a competitive market place. This transformation process from centrally planned operations to market responsive behavior is otherwise referred to in this report as “Commercialization”.

Our approach in assessing commercialization prospects was to perform a risk analysis from the perspective of an outside, sophisticated investor. We examined two broad areas: 1) the market operations and 2) the corporate structure and management policies of the Energos and Gencos.

### Market Operations

With respect to the market operations of the Energos and Gencos, we examined:

- destabilizing influences;
- uniquely defining characteristics of the Russian Integrated Power System (IPS);
- relationships with RAO EES Rossii, the municipalities, regulators and customers as viewed from the perspective of the Energos and Gencos, and their view of the transition process;
- the concentration and control of the electrical power sector by RAO EES Rossii;
- market anomalies;
- the need for energy efficiency programs;
- fuel supply and pricing problems;
- the opaqueness of the regulatory process; and
- base loading constraints.

We found:

- The wholesale market for power is being undermined because the settlements mechanism is weak. The wholesale market requires clear, transparent, and fair market rules and settlement procedures, and effective organizational arrangements for implementing the rules<sup>1</sup>. Resolution of the nonpayment problem and equitable distribution of the underrecovery burden among wholesale market participants will go a long way in alleviating the current difficulties.
- The regulatory environment is politicized and uncertain, and as such needs further reform.

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<sup>1</sup> This is currently a priority project between RAO EES Rossii/HBC/USAID

In addition to the foregoing, we also identified the following deficiencies which must be rectified:

- There are no proven commercial and legal contracting mechanisms and no enforceable laws on secured transactions.
- No long-term power sales agreements are being made which incorporate variable and fixed costs.
- No long-term fixed price fuel supply contracts are in place.
- There is no indexing of power and fuel tariffs.
- The ownership of assets is often unclear, and liabilities are poorly defined.
- Governmental guarantees for investors are unavailable.
- Indemnification against ecological liabilities is not available.
- Hire and fire capabilities are severely limited.
- A large portion of the industrial customer base is unstable.
- International Accounting Standards (IAS) are not applied.
- Tax legislation is proliferating, arbitrary, and difficult to interpret.
- The regulation of business activities is cumbersome and the approval processes are not transparent.
- There are restrictions on foreign currency and strong inflationary pressures.
- Real property law is inadequate with restrictions on foreign ownership, a lack of central deed and lien recording, and unclear rights governing the division of land and its improvement.

Our recommendations are:

- 1) Press ahead as quickly as possible with ongoing work on the wholesale market rules and settlement procedures -- while addressing both national and regional issues -- and implement the organizational arrangements. These rules should allow direct participation by large customers and promote sales to the Wholesale Market by AO Energos.
- 2) Augment system efficiencies further through assistance to:
  - i) promote energy efficiency and institute Demand Side Management (DSM) techniques;
  - ii) establish time and location differentiated pricing at wholesale and retail levels;
  - iii) upgrade communication links including hardware and software systems required for system-wide electric power control and dispatch;
  - iv) develop contractual formats for key transactions including:
    - i) sales to the wholesale market;
    - ii) purchases from the wholesale market;
    - iii) fuel supply contracts;
  - v) change fuel prices to reflect transport differentials;
  - vi) allow retail tariffs to more accurately reflect the true cost of investment by increasing depreciation rates; and remove arbitrary tariff formulae restricting investment;

- vii) survey and develop (at the Energo level) a model plan for the integration of management information systems with upgraded enterprise specific communications equipment.

### **Corporate Structure & Management Policies**

With respect to corporate structure and management policies, we focused on:

- The stability of the enterprise's corporate structure;
- The organization's management and financial credibility as it appears to outsiders;
- The adequacy of financial disclosure and availability of financial statements;
- The ownership and definition of corporate assets/liabilities; and
- The development of external commercial relationships.

We found that:

- profitability rather than output should be emphasized;
- increased emphasis needs to be placed on commercial vs. technical details;
- business critical issues to improve economic performance must be identified;
- managerial reports should be formatted against key financial objectives;
- relative values of financial and operational information need to be understood; and
- top management must be provided with the financial and operational data necessary for commercial strategic planning.

Our recommendations for the enterprises are to:

- articulate a clear policy on the profitability objectives of the enterprise;
- establish a policy from top-most management supporting the application of financial criteria for decision making;
- support an aggressive re-training program directed at all levels of management to develop financial management skills, and
- establish incentive programs to institutionalize the continued cooperation necessary to improve the profitability of the enterprise within all departments.

These recommendations should, if possible, be supported by assistance:

- 1) On a facility level at certain Energos and certain Gencos, to revise the financial planning and budgetary processes (as distinct from a revision of accounting practices) to support the rate of return on invested capital as a gauge of performance. This task will result in the creation of both a financial planning manual and a budgetary procedural manual. These manuals will have an application across the industry.
- 2) On a system wide basis, to design, develop and implement a new training curriculum that utilizes existing training facilities, personnel and institutions to teach Western business concepts under RAO EES Rossii's auspices. The objective will be to develop

a curriculum that supports the dissemination of modern financial managerial techniques applicable to the power sector enterprises and also supports the adoption of the systems and procedures being developed by the two teams in the field working on task 1, above.

## MARKET OPERATIONS

### Observations and Recommendations

The JEPAS Report concluded that, "The most important and largest source of financing now and for the foreseeable future (for the electrical power sector) is internally generated funds". We concur and we believe that the answer to the sector's liquidity problems lies principally in further structural reform.

Structural reforms which suggest themselves based on our review of market operations of the Energos and Gencos are as follows:

- 1) Press ahead as quickly as possible with ongoing work on the wholesale market rules and settlement procedures -- while addressing both national and regional issues -- and implement the organizational arrangements. These rules should allow direct participation by large customers and promote sales to the Wholesale Market by AO Energos.
- 2) Augment system efficiencies further through assistance to:
  - i) promote energy efficiency and institute Demand Side Management (DSM) techniques;
  - ii) establish time and location differentiated pricing at wholesale and retail levels;
  - iii) upgrade communication links including hardware and software systems required for system-wide electric power control and dispatch;
  - iv) develop contractual formats for key transactions including:
    - i) sales to the wholesale market;
    - ii) purchases from the wholesale market;
    - iii) fuel supply contracts;
  - v) change fuel prices to reflect transport differentials;
  - vi) allow retail tariffs to more accurately reflect the true cost of investment by increasing depreciation rates; and remove arbitrary tariff formulae restricting investment;
  - vii) survey and develop (at the Energo level) a model plan for the integration of management information systems with upgraded enterprise specific communications equipment.

### General

A primary objective of the privatization and subsequent commercialization of the power sector in Russia is to maintain the stability and profitability of the sector during the transition from state ownership. Stability and profitability are critical to the creation of an environment that will attract and sustain much needed capital. Our study confirmed the strong need for substantial investment in the sector, both to maintain the present generating, transmission and distribution infrastructure and to construct a more efficient

power system, generally. We also found a severe shortage of working capital throughout the system, which was greatly exacerbated by the curtailment of the right of to shut-off non-payers, which took effect in October 1995.

While needed capital can come from any of several sources including internally generated funds, equity financing, borrowed funds and direct government financing, many obstacles remain to the successful deployment of these funds.

### **The Electrical Power Sector**

In what follows, we discuss the following areas in depth. They are:

- destabilizing influences;
- uniquely defining characteristics of the Russian IPS;
- relationships with RAO EES Rossii, the municipalities, regulators and customers as viewed from the perspective of the Energos and Gencos, and their view of the transition process;
- the concentration and control of the sector by RAO EES Rossii;
- market anomalies;
- the need for energy efficiency programs;
- fuel supply and pricing problems;
- the opaqueness of the regulatory process; and
- base loading constraints.

#### *Destabilizing Influences:*

We identified many destabilizing influences negatively impacting the commercialization of market operations. Principal among them are that:

- The wholesale market for power is being undermined because the settlements mechanism is weak. The wholesale market requires clear, transparent, and fair market rules and settlement procedures, and effective organizational arrangements for implementing the rules. Resolution of the nonpayment problem and equitable distribution of the underrecovery burden among wholesale market participants will go a long way in alleviating the current difficulties.
- The regulatory environment is politicized and uncertain, and as such needs further reform.

In addition to the foregoing, we also identified the following deficiencies which must be rectified:

- Industry inordinately influences output at some Energos, virtually dictating the production and loading of electricity. This seriously affects the availability of power to residential and municipal consumers.

- Lack of cash to make payroll (in many cases over the last four months) is leading to increasing problems with morale and causing labor unrest.
- There are no proven commercial, legal contracting mechanisms and no enforceable laws on secured transactions.
- No long-term power sales agreements are being made which incorporate variable and fixed costs.
- No long-term fixed price fuel supply contracts are in place.
- There is no indexing of power and fuel tariffs.
- The ownership of assets is often unclear, and liabilities are poorly defined.
- Governmental guarantees for investors are unavailable.
- Indemnification against ecological liabilities is not available.
- Hire and fire capabilities are severely limited.
- A large portion of the industrial customer base is unstable.
- Internationally accepted accounting standards are not applied.
- Tax legislation is proliferating, arbitrary and difficult to interpret.
- The regulation of business activities is cumbersome and the approval processes are not transparent.
- There are restrictions on foreign currency and strong inflationary pressures.
- Real property law is inadequate with restrictions on foreign ownership, a lack of central deed and lien recording, and unclear rights governing the division of land and its improvement.

*Uniquely Defining Characteristics:*

Compounding the aforementioned destabilizing influences are the many unique attributes of the Russian Electrical Energy Sector that also must be taken into consideration when considering commercial restructuring. These include:

- The extremely large territory involved and concomitant power dispatch issues. The original Unified Power System included territories that are no longer part of the system. Particularly, these are Kazakhstan and the Ukraine. This truncation causes imbalances in generation and distribution.
- Natural gas is used in firing conventional boilers. Also, the price of natural gas is normalized for the entire country---giving no advantage for locations requiring little or no transport. While gas is the predominant fuel with its advantages of ease of transport and low pollution, Russia is unique in having few combined cycle gas turbine installations.
- Most Thermal Power Plants have a base load operation necessitated by heat production requirements.
- Certain facilities are designed to combust imported fuels (i.e.; coal from Kazakhstan).
- Massive investment is required for environmental improvement .
- Energy efficiency programs are non-existent.
- About 38% of total electrical production is at Combined Heat and Power facilities which are loaded for the production of heat.

- Electrical production at certain uneconomic facilities is maintained to assure load balance and frequency maintenance.
- Energy operations are interwoven into the fabric of municipal social structures (including schools, housing, hospitals and agricultural enterprises). Although these activities are not profitable for the power companies, they are of prime importance to their communities.
- Maintenance operations, energy inspection agencies and power related construction companies are integrated into the Energos' operations.
- Unemployment and retraining issues are looming, with the increased average age of personnel, particularly in management.

### *Relationships of Energos and Gencos:*

During our visits to the Energos and Gencos, we examined their relationships among themselves, their communities, the regulators and RAO EES Rossii. We also sought their views of the transition process. It is these relationships that will continue to determine the pace of commercialization. The following is a summary of those relationships as seen from the perspective of the Energos and Gencos.

#### 1. Relationship with RAO EES Rossii:

- From the Genco perspective, RAO EES Rossii does not enforce commercial discipline on the system in general and on the Energos in particular. This is of special importance in the handling of settlements and collections.
- While the Gencos contract for the wholesale sale of electricity with RAO EES Rossii Central Dispatch, RAO EES Rossii is not an obligator, nor is it a guarantor.
- Gencos feel discriminated against and limited in their participation in the market place.
- The Energos believe that RAO EES Rossii would not allow sales of excess power from one Energo to another.
- The Energos had little faith in receiving payment were they to sell outside the bounds of their region.

#### 2. Relationships with municipalities:

- The generators are often the *de facto* municipal authorities.
- The disposal of non-core activities by both Gencos and Energos is not considered viable except in isolated cases, the impact on the local community being deemed too severe.
- Heat generated by the Power Facilities is "single source" and critical for the municipality.
- The Gencos and Energos in most municipalities are the primary employers.

#### 3. Relationships with customers:

- Although they supply the grid on a wholesale level, the Gencos have no direct end-user contracts.

- As of October 1995, only about 60% of billings by the Gencos were being paid for.
  - Complex barter arrangements and debt cancellation schemes cover the majority of payments to the Energos.
  - Cash shortages are a result with consequent difficulties in paying for fuel supplies, payroll and taxes.
  - Prior to October, collections by the Energos ranged from 88% and up; this rate has now plummeted due to a government decree limiting the right of shut-off.
  - The Energos often can and want to group themselves into pools so that they can consolidate collection efforts. Under the current system, this is not allowed.
4. Relationship with regulators:
- Capital investment is not allowed unless financed by profits plus depreciation, and then it is limited to 8% (determined by the regional regulatory agency).
  - This leads to “no profits, no development”, and cash is used to cover fuel, payroll and taxes first.
  - Allowable depreciation is only 2.4% on average, though assets are allowed to be re-valued annually to account for inflation.
  - The fuel component of tariffs is at a “benchmark” price set at the beginning of the year and adjusted quarterly.
  - Tariffs are still heavily influenced by politics.
  - At present, tariffs are frozen at third quarter rates because of the elections.

*Concentration of Ownership and Control by RAO EES Rossii:*

Our visits at the Energos and Gencos indicated that there is little perceived benefit derived from RAO EES Rossii's control over the marketplace. Because RAO EES Rossii still is the *de facto* owner of the system, it dominates all issues of corporate decision making pertaining to the market operations of the Energos and Gencos.

To understand the market operating environment from the perspective of the Energos and the Gencos, it is important to examine the extent to which RAO EES Rossii still controls the system.

Prior to 1992, the Russian Unified Power System was constituted as follows:

- 72 regional power companies (611,000 employees).
- 16 specialized maintenance enterprises (13,000 employees).
- 123 construction enterprises (322,600 employees).
- 122 power equipment manufacturing enterprises (97,250 employees).
- 81 research and design institutes (29,700 employees).

As of December 1992, RAO EES Rossii was created with the following assets:

- 100% ownership of High Voltage transmission, including substations.
- 100% of Hydroelectric Power Facilities of 300 MW or higher.
- 100% of Thermal Power Plants with generating capacity of 1000 MW or higher.
- At least 49% of shares (but more than 50% of the voting shares) of each Joint Stock company formed from 72 local power enterprises (Energos).
- The following were formed into separate JS companies (wholly owned by RAO EES Rossii) without privatization:
  - Central Dispatch.
  - Six regional dispatch centers.
  - Design Institutes.
  - Scientific research institutes.
- Closely related construction organizations deemed essential to maintenance have been retained by the State in a trust.

This first step towards privatization, although meant to begin the separation of the Energos and Generating Plants from RAO EES Rossii, has perpetuated the dominance of the system by RAO EES Rossii.

This is further illustrated by the fact that, out of a total generating capacity of about 210 GW:

- RAO EES Rossii owns 100% of major Hydros, or 16.5 GW capacity
- RAO EES Rossii owns 90% of large Fossil Fired facilities, or 40 GW capacity
- RAO EES Rossii owns 60% of Energos with 100 GW capacity
- The State owns 100% of Nuclear Facilities with 21 GW capacity.

This means that RAO EES Rossii directly owns 133.5 GW or about 65% of the total electrical capacity in the country. In combination with the complete ownership of the transmission system and voting control over virtually 100% of generation and distribution assets, RAO EES Rossii (a majority State owned and a State controlled company) remains the monopoly force in the market.

This market dominance makes it difficult to develop a competitive wholesale market in the absence of very strong regulatory agencies. As we determined during our visits, the regulatory agencies at the Federal and Regional levels are in their formative stages and are consequently weak, remain influenced by politics, and currently lack the determination to create a viable wholesale market for power.

Thus, it wasn't surprising that the Energos and Generators that we visited continued to view RAO EES Rossii as the controlling owner of the sector. Production (and hence sale) of electricity is controlled by RAO EES Rossii through Central Dispatch. Although RAO EES Rossii appears to be the contracting agency in this arrangement, title to the power sold is not assumed, nor is responsibility for payment undertaken. Moreover, the settlement process is not clear. Gencos are assigned payables with little consultation, and the Energos feel little obligation to pay for supplies.

The individual Gencos are mandated to sell electricity without a central settlement agency. They have no control over the wholesale market buyer, particularly if the electricity is exported out of their region, and, therefore, they are severely constrained in their ability to arrange for payment.

Moreover, the Energos which have surplus generating capacity (witnessing the fate of the Gencos) are unwilling to sell outside their region. One Energo indicated that collection outside their region is only about 30%, while another Energo said that although they had the ability to generate additional electricity for distribution outside their region, they believed collection would be difficult. So, although it is technically possible to arrange direct sales of electricity from individual generating plants or from Energos to large customers (or to each other), this simply does not happen in practice.

In addition to the payment problem, both RAO EES Rossii's control of Central Dispatch and the existence of contracts made between the Energos and Gencos with Central Dispatch, make it impossible to sell excess power directly from one Energo to another. Most Energos and Gencos believe that, since RAO EES Rossii controls dispatch, a wholesale market will be difficult to create.

#### *Market Anomalies:*

It is generally agreed that the most important source of funding for the power sector will be internally generated funds. Successful implementation of current work on wholesale market rules and settlement procedures, organizational arrangements, and economic dispatch, will go a long way to increase internally generated funds.

The critical problem of non-payment for electricity encountered by the Energos and the Gencos is well known and is being exacerbated by the government decree limiting the right of shut-off for non-payment. Also, the financial strength of industrial consumers in the present transition period is increasingly being eroded, while the market area serviced by each Energo varies considerably and industrial consumers continue to subsidize residential consumers. This is leading to increasing regional discrepancies in payments.

Only about 60% of overall billings are being collected, and much of this is in the form of complex barter arrangements and debt cancellation schemes. The resultant cash shortage is restricting the ability of the Gencos and Energos to arrange for fuel supplies, meet payroll and pay taxes. Until recently, accounts receivable collections by Energos have ranged from 88% upward. Collections plummeted in October and fell even further in November due to the aforementioned government decree. As a result, it was not surprising that we found Energos eager to group themselves into pools so that they could consolidate collection efforts.

#### *The Need for Energy Efficiency Programs:*

Demand Side Management programs and Energy Efficiency Programs are non-existent or in their infancy. Many of the industrial concerns within the Energo regions have high electricity usage because of inefficient energy systems and a lack of planning. There is much work that needs to be done in this area, from the introduction of new metering technologies to the institution of pricing on a daily and seasonal basis. While capacity is not now constrained, the aging facilities will require substantial new investment within the next 10-15 years. Thus, the institution of energy efficiency programs is of paramount importance since these can be cost effective relative to building new generating capacity.

#### *Fuel Supply and Pricing Problems:*

Russia's fossil fuel plants are predominantly fired by gas (65%--both natural and well-head); the balance burn coal (25%) and residual fuel oil or mazut (10%). Several fuel-related issues were noted. Most of the coals used are lignite or low-quality bituminous grades. This gives rise to serious emission problems. The coal boilers have either outdated pollution control devices or none at all.

Although natural gas predominates and is by far the cheapest and cleanest source of electrical production, it is essentially all burned in conventional boilers, whereas in most Western countries more efficient combined cycle gas turbines have replaced conventional gas-fired boilers. We believe that large scale efficiencies can be achieved in this area.

We also noted that many of the generating plants were dispatched based on fuel availability, not on any economic basis. Also, the pricing of fuels is problematic for several reasons, among which are arbitrary tariffs. This leads to artificial cost discrepancies among fuels and in the costs of electricity produced at various locations. Moreover, in spite of the fact that fuel delivery contracts call for the revision of prices on a quarterly basis, electricity tariffs are not indexed to reflect fuel costs, which leads to a curtailment of both profits and funds available for investment.

We found that many of the Gencos find themselves in a "Failure Spiral". The amounts of fuel available next year (particularly gas) will be limited to what they were able to pay for this year with very scarce cash resources. With the need to burn more expensive fuels such as mazut, tariffs rise, collections become more difficult, and revenues decrease.

Lack of cash to pay for fuel has forced some Gencos to operate at absolute minimum loading even though they would otherwise be very competitive.

#### *The Opaqueness of the Regulatory Process:*

Although Federal and Regional Energy Commissions have been set up with the mandate to regulate wholesale and retail prices for electricity, these bodies are in their infancy and have not yet established themselves as independent supervisory bodies.

While wholesale market prices are determined at the federal level, the Federal Energy Commission has not begun to assert itself independently of the State political process. Energy prices at the time of this writing were frozen at third quarter levels for other than economic reasons.

Also, on a federal level, wholesale tariffs are not based on sound economic principles. Electricity prices should take into consideration regional fuel cost differences, and at present, this is not being done. For example, a uniform price for natural gas is used for tariff calculations throughout the country, although gas in the Tyumen region is, in reality, much cheaper than elsewhere. Also, wholesale tariff calculations should reflect both the variable and fixed costs of production if economic dispatch is ever to become a reality.

The Regional Energy Commissions have the mandate to determine the retail pricing structure. What was determined from our visits, however, is that these commissions are not the apolitical decision making bodies they should be.

Finally, tariffs at both the wholesale and retail levels do not account for daily or seasonal peak loading.

We also found that capital investment is not allowed under current tax regime unless financed by "profits" plus depreciation, and then it is limited to 8%. This leads to a regime of "no profits, no development", which can lock an enterprise into a downward spiral as equipment ages. Moreover, depreciation rates are too low (on average 2.4%) for the adequate recovery of capital investments, and this, too will have to be raised if the sector is to attract the substantial capital it requires.

#### *Generation and Base Load Requirements:*

The ability to economically dispatch electricity within Russia is influenced by some unique factors.

The first factor is that the integrity of the power sector was undermined by the break up of the former USSR. The Urals, Middle Volga, Central and Northwest are the only regions that are interconnected within Russia. Siberia (through Kazakhstan) and the North Caucasus (through the Ukraine) are isolated from the rest of the system---although there are plans for new transmission lines. Also, only limited electrical transmission capacity (1500 MW) exists from the Tyumen region, which is the lowest cost producer.

The second factor influencing the economic dispatch of power is that, of the 69% of power generated by fossil fuel, over half the capacity is at combined heat and power plants that are loaded based on heat production. A substantial number of the remaining fossil fuel plants also are limited in their generating flexibility due to required heat production.

Finally, due to the very long transmission lines in Russia, many of the generating plants must maintain a minimum rate of generation to maintain frequency and balance through the lines.

### **Conclusions**

While the freedom of the individual Energos and Gencos to act is limited, the problems must be faced or the system's integrity will be further eroded.

The re-organization of the sector into a more classical structure will require:

- Clear, transparent, and fair wholesale market rules and settlement procedures.
- Time and location differentiated pricing.
- Economic Dispatch.
- Enforceable Supply Contracts.

In the broader sense, the goal of establishing time and location differentiated pricing with economic dispatch is made difficult because:

- The present dispatch hardware and software and the attendant communication links are not adequate to support economic dispatch.
- Wholesale market buyers will have to have time-of-day metering and communication equipment installed to provide the feedback necessary to respond to time and location differentiated pricing.
- During the transitional phase, it will be necessary to maintain operations at some facilities that are not economically viable in a pure economic dispatch regime.

## **Corporate Structure And Management**

### **Introduction**

The evolutionary changes in Russia parallel those of the United States in the early 1900's; at that time, industrialization was sweeping the country, and the critical problem firms faced was raising capital for survival. The capital markets were primitive, making transfers from savers to businesses difficult. Reports of earnings and asset values in accounting statements were unreliable; share trading by insiders and manipulators caused markets to gyrate wildly. During the 1930's there were an unprecedented number of business failures. Nonetheless, the mode of management operations remained largely the same until after World War II: the marketing manager (read central planner) would project sales, the engineering and production staffs would determine what assets were necessary to meet these demands, and the finance manager was instructed to simply find the money to purchase the necessary plant, equipment and inventories.

This mode of management is no longer prevalent in the United States, but is instructive to understand just how recent this transition has been. Today, financial decisions are recognized as the critical factor in corporate decision making, with the financial manager directly responsible for the control process. This shift in emphasis has been the prime mover behind the development of efficient markets, stability and prosperity. It is this shift in emphasis that is now facing the constituent parts of what was the Russian Unified Power System.

Capital in a free economy is allocated through a pricing mechanism. The former command economy did not recognize capital as a factor of production, i.e. it had no cost. The successful transition of an enterprise operating in a command economy to competing in a free market will be predicated on how well management learns modern financial techniques.

The application of modern financial techniques will lead to greater efficiencies in running an enterprise. In what follows we discuss two types of techniques, the time value of money broadly expressed as a return on investment, and the use of certain performance measures such as financial and operational ratios. These techniques are for managerial use and should not be thought of as methodologies to employ when seeking tariff adjustments. When used together and with the support and understanding of the work force, they provide a guide by which the enterprise can achieve increased operational efficiencies. As such these measures can be used to develop a "pact" between management and labor against which performance can be measured and the enterprise's future charted.

### **Observations**

During our visits to the Energos and Gencos we focused on the following areas:

- The stability of the enterprise's corporate structure.
- The organization's management and financial credibility as it appears to outsiders.
- The adequacy of financial disclosure and availability of audited financial statements.
- The ownership and definition of corporate assets/liabilities.
- The development of external commercial relationships.

#### *The Stability Of Corporate Structure:*

We found that the principle of corporate governance was well established. In general, we observed that management recognized that the organization's sphere of influence has been expanded to encompass shareholders, investors, competitors, regulators and customers. We also examined the "Corporate" structure to see if the different departments within the Gencos and Energos adequately focused on the functions necessary to achieve commercialization.

We observed that:

- profitability rather than output should be emphasized;
- increased emphasis needs to be placed on commercial vs. technical details;
- critical business issues to improve economic performance must be identified;
- managerial reports should be formatted against key financial objectives;
- relative values of financial and operational information need to be better understood; and
- top management must be provided with the financial and operational data necessary for commercial strategic planning.

These critical improvements represent a movement away from production oriented objectives. Broadly speaking, there has to be a transit to a financially driven decision making structure. What is needed in each organization is four-fold:

- a clear policy on the profitability objectives of the enterprise;
- a policy from top-most management supporting the application of financial criteria for decision making;
- support for an aggressive re-training program directed at all levels of management to develop financial management skills, and
- an incentive program to institutionalize the continued cooperation necessary to improve the profitability of the enterprise within all departments.

#### *The Organization's Management And Financial Credibility As It Appears To Outsiders:*

Credibility is judged by a standard of apparent openness that is evolving in some cases faster than in others. Here again the path forward will be facilitated through training and

exposure to Western business culture and norms. We experienced less reticence than we expected, but it was clear that (as in any organization, be it Russian or American) there is a resistance to change which will work against the successful transition of the enterprise unless extensive re-training is conducted.

Credibility is also judged by evidence of the organization's ability to plan for profit. We saw little evidence of an ability to plan for profit in the Western commercial sense wherein every resource has a cost, and every asset must be thought of in terms of its contribution to the profitability of the enterprise. This broadly defined concept of profitability is not yet driving decision making at the Energos and Gencos. The time value of money is not understood. Consequently all investment decisions are technically driven. The inference, therefore, is that scarce capital continues to be misallocated.

As noted in other reports, there is no single individual or department within the organizations surveyed who carries the responsibility for the profit planning function. The logical successor to this function, however, within the Energos and the generators appears to be the Planning & Economics Division.

Management must develop a system of formal controls, and top management must articulate a clear, specific profit objective. Day to day emphasis has to be put on profit improvement that will necessitate the interest and participation of the entire staff. For the program to succeed, lower levels of management must be convinced that upper management is vitally interested in the comparison of financial results against this plan. For this reason, in addition to re-training at all levels, a formal program that recognizes and rewards profit improvement achievements should be created. This will serve to institutionalize the profit planning philosophy and bring about the continued cooperation necessary to effect a successful program. Reward systems that promote individual achievement benchmarked against performance measures consistent with promoting commercial efficiency and self-financing must be adopted.

#### *The Adequacy Of Financial Disclosure And The Availability Of Audited Financial Statements:*

In the organizations we visited, audited financial statements do not exist; however, given the sheer volume of information collected it appeared to us that the main challenge ahead lies in reformatting the information rather than in data collection.

This is not going to be a trivial task. Nor should it be thought of as a one-off exercise. The value to the organization lies in the knowledge gained about the true condition of the enterprise, and also in learning the principles inherent in the audit discipline so management can build internal and external reporting mechanisms consistent with best industry practices.

Financial reports will have to be created which are based on the notion of a 'going concern', which are consistent and prudent, prepared on an accrual basis, and are

substantive as opposed to merely detailed. Moreover, accounts will need to be restated to account for inflation, be consolidated across the organization, adequately disclose contingencies, use appropriate inventory valuation methods, and reflect appropriate depreciation rates consistent with asset life. These standards should be applied now. Additionally, while stock ownership is still quite limited (and new), the necessity of giving an account of management's stewardship should become a driving concern of management.

*The Ownership And Definition Of Corporate Assets And Liabilities:*

We observed that assets are more easily identified than liabilities, particularly contingent liabilities. Considerable effort will be required in this area to augment outsider confidence in the commercial viability of the organizations we visited.

Any outsider trying to evaluate the business of a generator or an Energo will face the issue of understanding its liabilities. Management needs to fully appreciate the requirement to disclose all of the liabilities to which an investor/financier would be exposed. The greater the apprehension of undisclosed liabilities, the greater is the reluctance to provide capital. This in turn translates into higher costs of capital and a demand for faster paybacks.

We also looked at the non-core activities of the enterprises. Non-core activities are recognized by management to be unprofitable for the most part, however it is our opinion that in many cases it would be unwise to divest these because of the negative impact on the community. Rather, these non-core activities can be thought of as an indirect form of taxation.

*The Development Of External Commercial Relationships:*

Within each organization specific requirements were identified that have to be supplied by outside suppliers. The approach currently used does not insure that the best service or product is purchased for the best price. The enterprises we visited need assistance in identifying qualified suppliers, assessing the costs, features and benefits of the products/services offered, organizing bidding and negotiating purchase contracts.

The successful commercialization of the Energos and Gencos will depend on making the optimal use of their very scarce capital resources. These enterprises are in serious jeopardy because of their historic isolation.

We noted the following areas where assistance was requested, and, in our opinion, needs to be given:

- Information Technology (IT) hardware and software.
- Energy conservation equipment such as new metering technologies.
- Maintenance, construction and material management systems.

- Telcom circuits particularly as they relate to facilitating collections and settlements.
- Database management systems.
- Customer information systems.

Skills also need to be augmented in the areas of bidding, contractor selection, contractual performance, and contractor warranty compliance procedures.

### **Recommendations - The Path Forward**

Based on our observations, we are recommending that the following steps be taken:

- Mandate the Adoption of a Rate of Return as the Principle Goal of the Organization to Achieve Internal Management Efficiencies.
- Revise the Planning Process to Support the Rate of Return as a Gauge of Performance.
- Re-train all Management Personnel.
- Formulate an Effective Profit Incentive Program.
- Collect, Report and Analyze Financial and Operational Data
- Develop Proforma Business Plans.
- Prepare Audited Financial Statements/Prospectuses.
- Support Business Development.

These tasks can broadly be distilled down into two main areas we are proposing for assistance. These proposals will be detailed later in this report. Briefly, however, we are recommending two basic approaches to assist in the commercialization of the electric power sector for which RAO EES Rossii's cooperation is necessary. They are:

1.) On a facility level at certain Energos and certain Gencos, to revise the financial planning and budgetary processes (as distinct from a revision of accounting practices) to support the rate of return on invested capital as a gauge of performance. This task will result in the creation of both financial planning and budgetary procedural manuals. These manuals will have an application across the industry.

2.) On a system wide basis, to design, develop and implement a new training curriculum that utilizes existing training facilities, personnel and institutions to teach Western business concepts under RAO EES Rossii's auspices. The objective will be to develop a curriculum that supports the dissemination of modern financial managerial techniques applicable to the power sector enterprises and also supports the adoption of the systems and procedures being developed by the two teams in the field working on task 1, above.

*Mandate the Adoption of the Rate of Return as the Goal of the Organization:*

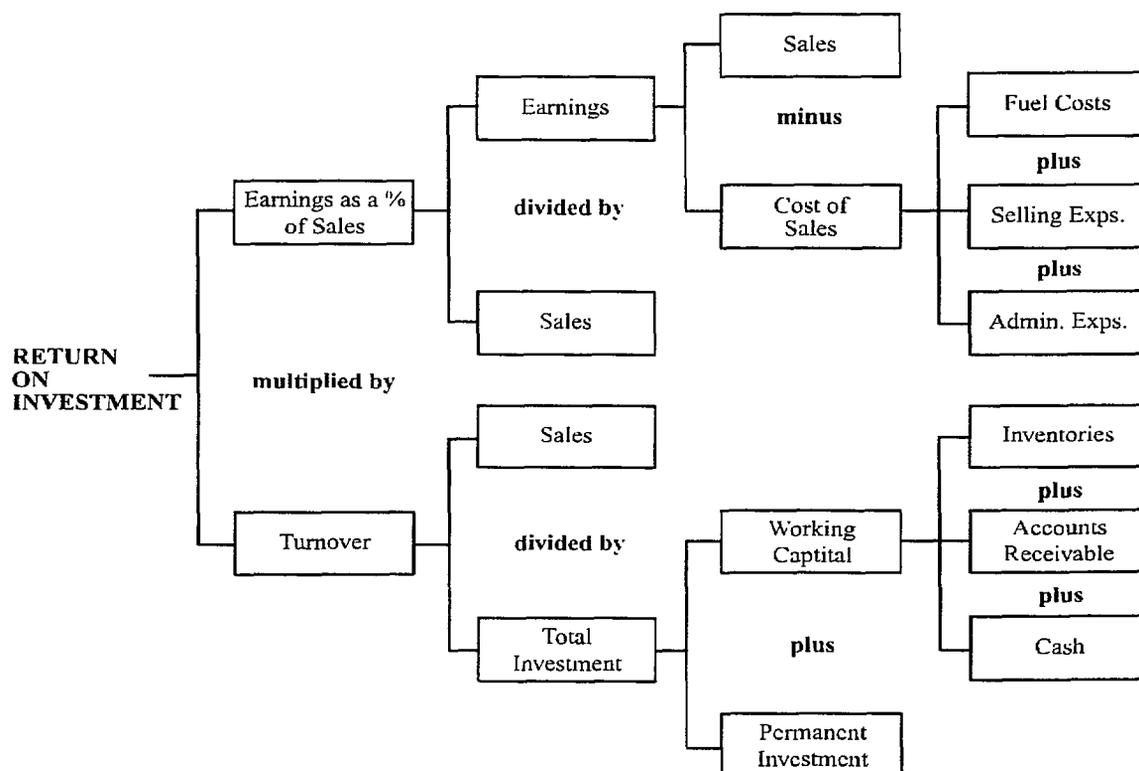
The Supervisory Committee of each enterprise should instruct the General Director to mandate the adoption of an overall profitability objective for the enterprise and the incorporation of financial criteria in decision making throughout the organization.

The overall profit objective for the enterprise should be stated in terms of the rate of return on investment and should be used by management to achieve internal operational efficiencies. It should also be used as an integral part of the budgetary and financial planning processes. It should not be used or thought of as a criteria for justifying rate applications to regional or federal tariff setting authorities.

As stated elsewhere, profit planning is the expression of an enterprise's internal managerial methods for achieving efficient operations, and follows immediately from the statement of the overall rate of return objective. For purposes of profit planning and budgeting, the rate of return calculation represents the desired end result of the enterprise's activities. This rate has two components: i) earnings as a percent of sales, and ii) the turnover of investment. Earnings as a percent of sales represents the degree to which costs were contained when measured against sales. Turnover of investment measures the efficiency with which the capital employed in the operation is being used.

A manager can look at this calculation for the enterprise as a whole or on a division-by-division basis. The utility of the calculation is the same no matter what the perspective, a manager can improve his return on investment by either reducing costs or by working his investment harder, both of which are entirely within his control.

#### Graphic View of the Calculation of the Return on Investment



Much debate has been focused on determining the proper number to use for the determination of "Permanent Investment" in an environment where historical costs are no longer meaningful. In fact, it is fairly easy to determine a meaningful value. The "Investment" in an initial ROI calculation will be the "net worth" of the facility determined by the return the assets can earn, not the "book" or "historic" cost of the assets. The "I" is determined by the net present value of future earnings after stipulating a desirable internal rate of return. To calculate this number, take the costs of inputs and value of outputs, figure a cost of capital and work backwards to determine the investment base. With this basis you then segment the productive assets inside the firm, allocate values, and mandate a rate of return required for doing business in the future. This calculation then becomes the predicate for developing the budget and the financial plan.

Another method is to take the replacement cost and discount it for the age of the plant and equipment employed. If this value is materially different from the value achieved by discounting the cash flows as described above, the reasons for this variance must be examined and a compromise arrived at based on the presumptive reasons for this divergence.

*Revise the Planning and Budgetary Processes to Support the Rate of Return as a Gauge of Performance:*

Outside financial consultants should be brought in and tasked to develop a core of enterprise staff who in turn will develop new Financial Planning and Budgetary procedures consistent with the articulated rate of return objective. (Again, this is strictly to achieve internal managerial objectives, and in no way should the ROI calculation be used to justify tariffs). Because this process is both cyclic and continuous, as part of this comprehensive reformation of the planning process, the strengthening of an enterprise's internal financial management team is essential to achieving the prosperity and even the survival of the enterprise.

As stated above, the plan must be geared to an approved profit objective. The stipulated objective has to be further broken down into sub-objectives for the various units of the enterprise. Variances of actual performance against plan must be reported to top-management, and, where controllable, acted (and seen to be acted) upon. The budget for succeeding years will be derived using the results of the financial planning process.

The planning process involves:

- setting a goal for the enterprise to achieve in a future period;
- forecasting economic conditions which will effect demand;
- forecasting demand and selling prices;
- determining how much demand can be satisfied from existing capacity;
- determining the required expansion of plant and equipment to meet increased demand;
- projecting costs at forecast demand levels;
- projecting selling and administrative costs;

- projecting working capital required;
- projecting cash required for;
  - working capital;
  - plant and equipment outlays; and
  - administrative expenses;
- making profit estimates, and
- determining finance requirements.

Once the planning process has been completed it is possible to develop budgets for the divisions and the enterprise as a whole. A comprehensive budget includes the following components:

- Sales budget
- Production budget
- Materials budget
- Labor budget
- Manufacturing expense budget
- Distribution cost budget
- Administration expense budget
- Plant and Equipment budget

By definition the budget should be prepared for one year forward, broken down by months. The budget should be flexible in that it should allow for changing circumstances, and actual results should be compared against budgeted amounts for use as a management tool.

*Re-train all Management Personnel:*

Simultaneous with the issuance of the profitability goals for the enterprise, the Supervisory Committee should instruct the General Director to re-orient training programs to incorporate Western business curricula. All the organizations with whom we met have extensive training programs. Internal training is thoroughly imbedded in the business culture of the Russian Power Industry.

The objective in redesigning the training process is to develop a curriculum that supports the articulated profit goals of the enterprise. The curriculum must emphasize commercial over technical details, stress the notion of profit over production, and identify business critical issues to improve the economic performance of the enterprise. The program should be taught by Russians in Russian.

Based on our interviews, the concepts that need to be taught must include:

1. Planning for Profit
  - i) The concept of profit
  - ii) Measuring profit

2. The Cost Of Capital
  - i) The concept of the time value of money
  - ii) Applications to decision making
  - iii) Risk/timing and uncertainty
3. The Preparation of Financial Statements
4. Financial Planning
  - i) Responsibility
  - ii) Reports
5. Working Capital Management
  - i) Definition
  - ii) Administration of current assets & current liabilities
  - iii) Sources of working capital
  - iv) The cash budget
  - v) Management of internal and external funds
  - vi) Short-term cash flow forecasts
  - vii) Controls and 'use of funds' statements
  - viii) Liquidity management
6. Capital Asset Planning
  - i) Definition of fixed capital assets
  - ii) Planning for capital expenditures
  - iii) The capital budget
  - iv) Estimating investment profitability
  - v) Depreciation in capital management
7. Dealing with Special Problems:
  - i) Capital Investment and cash flow management
  - ii) Methods for evaluating investment proposals
    - i) Time adjusted methods
    - ii) Payback and payout
    - iii) Ranking
  - iii) Project analysis methodology
  - iv) Risk exposure policies
  - v) Control procedures
  - vi) Internal audits
  - vii) External audits
8. Operations:
  - i) Defining and meeting "best industry standards"
  - ii) Management information systems
  - iii) Customer information systems
  - iv) Engineering resource management techniques

- v) Competitive market development skills
- vi) Inventory management
- vii) Information Technology (IT) and Management Information Systems (MIS) integration
- viii) Human resource management

*Formulate an Effective Profit Incentive Program:*

Currently, where bonuses are paid within the Energos and Gencos, moneys are allocated across the board based on length of service and skill levels. Bonuses are only denied in cases of employee misconduct. This type of "reward" system is devoid of any motivational impact. Employees become accustomed to receiving these bonuses, and regard them as their right.

A profit incentive program should be initiated to motivate employees to attain specified profit levels. In general, profit incentive plans can be divided into two broad categories, immediate distribution plans, and deferred distribution plans. Both types of plans should be formulated to motivate employees.

Immediate Distribution Plans: This type of plan provides for compensation that is in addition to take-home pay as a reward for better than average performance as measured by the profits of the enterprise. The plan is a bonus plan dependent on profits, and rewards can be tailored to specific profit or cost cutting goals. The objective for establishing such plans is to unify the interests of the enterprise and its employees. The reason is to increase employee initiative and efficiency; to eliminate wasteful practices. It also may serve as an effective method to avoid wage increases which might prove difficult to remove in times of poor business.

Deferred Distribution Plans: This type of plan is designed to reward valued employees and promote their long-term loyalty to the enterprise. These plans become relevant as labor mobility improves, and are designed to keep highly skilled employees. They are distinct from retirement plans.

*Record, Report and Analyze Financial and Operating Data:*

With the assistance of outside financial consultants, the core enterprise staff will establish and routinize procedures for the collection and analysis of financial and operational data for managerial reports. Shareholders, potential strategic partners, bankers, analysts, as well as management will utilize some or all of these reports to decide how to allocate resources and structure deals.

Various devices are used in the analysis of financial and operational data to highlight the comparative and relative significance of financial and operational information. These

devices include ratio analysis, comparative analysis, percentage analysis, and the examination of related data.

Ratios can be classified as follows:

- *Liquidity Ratios*. Measures of the short run ability of the enterprise to pay its maturing obligations.
- *Activity Ratios*. Measures of how effectively the enterprise is using the assets employed.
- *Profitability Ratios*. Measures of the degree of success or failure of a given enterprise or division for a given period of time.
- *Coverage Ratios*. Measures of the degree of protection afforded to long-term creditors and investors.

The predictive value of these ratios is enhanced by using techniques known as:

- Comparative Analysis; and
- Percentage Analysis.

All of the foregoing ratios are useful to the management of an enterprise, which is, of necessity, concerned about the composition of its capital structure and about the changes and trends in earnings. This information has a direct influence on the type, amount, and cost of external financing that an enterprise may obtain. In addition, management will find the information useful on a day-to-day operating basis in such areas as capital budgeting, break-even analysis, variance analysis, and in the analysis of profitability. Finally, these ratios are often used to predict the ultimate success of an enterprise and point to the future price of its shares in the market.

### *Liquidity Ratios*

The ability of an enterprise to meet its current debts is important in evaluating its financial viability. Certain basic ratios can be computed that provide a guide for determining how well an organization can service its short-term debt. They are:

- The Current Ratio: defined as Current Assets divided by Current Liabilities;
- The Acid Test Ratio: defined as Cash plus Marketable securities plus Receivables divided by Liabilities; and
- The Defensive Interval Ratio: defined as Cash plus Marketable securities plus Receivables divided by Projected Daily Cash Operating Expenses.

### *Activity Ratios*

Another way of evaluating liquidity is to determine how quickly certain assets can be turned into cash. These ratios are:

- Receivables Turnover: defined as Net Sales divided by Average Trade Receivable for a comparable period;
- Inventory Turnover: Cost of Goods Sold divided by Average Inventory for a comparable period; and
- Asset Turnover: Net Sales divided by Average Total Assets for a comparable period.

### *Profitability Ratios*

Profitability Ratios indicate how well the enterprise has operated during the year. These ratios answer such questions as: Was the profit adequate? What rate of return does it represent? Generally the ratios are either computed on the basis of sales or on an investment base such as total assets. Profitability is frequently used as the ultimate test of management effectiveness. These ratios are:

- Profit Margin on Sales: Net Income divided by Net Sales;
- Rate of Return on Assets: Net Income divided by Total Average Assets;
- The Rate of Return on Common Stock Equity: Net Income after Preferred Dividends divided by Average Common Stockholder's Equity;
- Earnings per Share: Net Income divided by Number of Shares Outstanding;
- Price Earnings Ratio; Market Price of Stock divided by Earnings per Share; and
- The Payout Ratio: Cash Dividends divided by Net Income.

### *Coverage Ratios*

The coverage ratios are computed to help in predicting the long run solvency of the firm. These ratios are of primary interest to lenders who need some measure of the protection that they have when lending to the enterprise. Additionally, they indicate part of the risk in investing in the common stock of the enterprise, because the more debt that is added to the capital structure, the more uncertain is the return on the common stock. These ratios are:

- Debt to Total Assets: Debt divided by Total Assets;
- Times Interest Earned: Net Income Before Taxes and Interest Charges divided by Interest Charges;
- Book Value per Share: Common Stockholders' Equity divided by the Number of Outstanding Shares; and
- Cash Flow per Share: Net Income plus Non-Cash Adjustments divided by the Number of Outstanding Shares.

### *Comparative Analysis*

In employing comparative analysis, the same reports or data are presented for two or more different dates or periods so that like items may be compared. Ratio analysis provides a

snapshot for only a single moment in time. In comparative analysis, a dynamic picture of a given accounting line item can be seen as it grows or diminishes over time.

### *Percentage Analysis*

Percentage analysis consists of reducing a series of related amounts to a series of percentages of a given base. For example, all items in an income statement can be reduced to a percentage of sales or a percentage of cost of goods sold. A balance sheet can be analyzed on the basis of total assets. This type of analysis facilitates comparison of categories where sizes and periods change.

### *Operational Performance Measures*

Management needs to develop performance measures which are consistent with the following objectives:

- the maintenance of security of supply;
- commercial and technical efficiency,
- the promotion of self-financing;
- competitive market development; and
- the achievement of the transition to a market economy

Thus, the following calculations should be applied in the context of 'best industry standards':

- numbers of customer complaints
- cost per GWh
- thermal efficiency
- fuel cost per unit
- staff cost per MW or MWh
- % reliability
- number of system failures
- average availability
- minutes lost per customer
- % supply losses not restored within a specified time
- speed with which supply is restored
- rate of meter installation
- notice of supply interruption
- response time to customer complaints
- response time to payment and charge queries

It is only through the application of financial and operational analysis that management will be able to efficiently manage all aspects of the business. The foregoing ratios are well

understood and widely applied in utilities throughout the West and should be adopted by the Energos and Gencos.

*Develop Proforma Business Plans:*

Business plans need to be developed to allow an enterprise to market specific projects to potential investors. These proforma plans will guide investment activities. Critical to the decision of investors or lenders regarding whether or not to support a project is their belief that they will earn a return on their money

Although progress is being made in converting to International Accounting Standards, there is much work remaining. Before investment in individual enterprises is possible, they must first be identified as accountable units.

Generally there are two principle statements used to portray the effects of future circumstances. These are referred to as "Proforma", and they are profit and loss forecasts and balance sheet projections. The preparation of these Proforma statements allows management and outsiders to:

- track the flow of reinvested profits into current and fixed assets;
- adapt to and plan for seasonal variations in operations;
- determine financing requirements, both short and long-term;
- plan capital investments;
- forecast cash balances and requirements; and to
- model the effects of different policies.

Variable costs of production such as fuel, materials, and labor are known. The amount of product sold as MWHs and Gigajoules is also known, and from these general "inputs and outputs", a proforma type income statement can be easily produced. Although it is preferred to have complete audited financial statements, this proforma type financial evaluation is an excellent preliminary step in determining the commercial viability of the concern. It is known that all of the required data are available.

The production of reasonable proformas for each accountable unit, particularly at individual targeted Energos, will give these enterprises a valuable tool to use internally for decision making and will be invaluable for investors. Management personnel need to be convinced of the utility of proformas, and versed in their preparation.

*Prepare Audited Financial Statements:*

The preparation of audited financial statements is a prerequisite for financing. An enterprise will not be able to raise any significant amount of funds without them. Where and when appropriate, a prospectus should also be eventually developed for each particular endeavor marketed to investors. The prospectus will contain information about

the enterprise's planned use of the funds, risks and payback mechanisms. The prospectus should also cover economic and legal issues affecting the enterprise or project into which the funds will be directed.

#### *Support Business Development:*

A bridge between the newly commercialized enterprises and Western companies needs to be created to augment the entire process of capital, knowledge and technology transfer. By doing so the privatization process will be underwritten and the survival of privatized companies will be ensured as independent operators in the Russian Power sector.

One possible solution is to create a liaison function to act as a facilitator, assisting a power sector enterprise in locating appropriate suppliers of management expertise, capital and technology. In order to correctly assess the value of potential products and services, the organization has to be assured that its requirements are communicated as widely as possible to the potential universe of qualified suppliers.

#### **Principal Recommendations**

- A comprehensive profit strategy articulated by top management will be the key to successful commercialization.
- The Financial Planning and Budgetary Processes must be revised to support the profit strategy.
- All paths forward require common initial preparatory work, the foundation for which will be based on training.

#### **Action Plan and Proposed Tasks for Joint USAID/HBC Assistance to RAO EES Rossii**

The objective of the assistance we are recommending here will be to create at least two demonstration projects as paradigms for the other Energos and Gencos to follow. The *sine qua non* is that the General Directors of the enterprises chosen state a return on capital goal, communicate this goal to all levels of the organization, and then stand squarely behind the changes this will auger.

Predicated on enlisting the cooperation of management, we are recommending two basic approaches to aid in the commercialization of the electric power sector. They are:

- 1.) On a facility level at certain Energos and certain Gencos, to revise the financial planning and budgetary processes to support the rate of return on invested capital as a gauge of performance; and

2.) On a system wide basis, to design, develop and implement a new training curriculum that utilizes existing training facilities, personnel and institutions to teach Western business concepts under Russian auspices.

The purpose of this assistance is to leave structural methodologies in place for the institution of financial management planning and budgetary techniques across the entire electrical power sector. Additionally, the purpose is to create a self-sustaining educational support system which can serve as a model not only for the electrical industry, but also for other commercial sectors which currently base decision making on output rather than on the time value of money.

The deliverables under item 1) above will be budgetary and financial planning manuals which will be broadly applicable to and easily disseminated throughout the industry, the implementation of which will facilitate later audits.

The deliverables under item 2) above will be the establishment of a system-wide curriculum under the auspices of RAO EES Rossii and in conjunction with Russian educational institutions, to which the power companies will first send their top planning managers and trainers, then progressively send other levels of management personnel.

*Revise the Planning Process to Support the Rate of Return as a Gauge of Performance*

We propose that two teams will be fielded under the direction of a U.S. coordinator based in Moscow, who will allocate 50% of his or her time to this task. Each team will be comprised of two qualified Russians, one from Price Waterhouse and one other Russian conversant in both current Russian methods and modern Western financial planning techniques. These teams will initially be deployed on a scheduled basis working through one complete budgetary and financial planning cycle to design and create the necessary budget and financial planning procedures and manuals. The following year, these teams will supervise the implementation of these procedures for a period of not less than six months to insure that the procedures are properly understood and have become institutionalized. These teams will also be tasked to develop a core of enterprise staff who in turn will develop new Financial Planning procedures consistent with an articulated rate of return goal for the enterprise.

*Retraining all Management and Training Personnel:*

This task will be coordinated by the U.S. expatriate employee (the same as mentioned above) who will devote the remaining 50% of his or her time to this effort. The effort will be supported by one full-time Moscow based employee. Additionally, Russian professors will have to be employed on a part-time basis to structure and teach these courses. Courses are expected to run two to three weeks in duration. The task will run for eighteen months. The first six months will be devoted to researching and establishing the

program, and the balance of the period will be used to implement the task. It is envisioned that an integral part of the program to be developed will involve "home study".

There are numerous Russian training assets teaching Western business management techniques. (See Appendix A). It will be the objective of this task to integrate these assets with the power sector training programs already in existence at the various enterprises. It is expected that RAO EES Rossii will supervise this effort.

The objective will be to develop a curriculum that supports articulated profit goals for the power sector enterprises and also supports the adoption of the systems and procedures being developed by the two teams in the field working on task 1. The curriculum must emphasize commercial over technical details, stress the notion of profit over production, and identify business critical issues to improve the economic performance of an enterprise. The program will be taught by Russians in Russian. Initially, institutions unaffiliated with the Russian Power Industry will have to be used, but the longer-term objective is to develop training assets within the system so that the process will become self sustaining.

### **Conclusion**

Based on the foregoing, we are seeking RAO EES Rossii's reaction to our recommendations. Should RAO EES Rossii feel positively about adopting such programs as are proposed here, we would then seek to further define and develop these tasks in conjunction with RAO EES Rossii and USAID to achieve the full commercialization of the Electrical Power Sector in Russia.

## APPENDIX A

### RUSSIAN EDUCATIONAL INSTITUTIONS TEACHING WESTERN BUSINESS COURSES

<b>MOSCOW STATE UNIVERSITY</b>	<b>2</b>
Faculty of Economics	2
<b>MOSCOW STATE UNIVERSITY</b>	<b>3</b>
Faculty of Economics Business School	3
Moscow State University Of International Relations	5
<b>ALL-RUSSIA ACADEMY OF FOREIGN TRADE.</b>	<b>6</b>
<b>STATE ACADEMY OF MANAGEMENT</b>	<b>9</b>
<b>ACADEMY OF NATIONAL ECONOMY</b>	<b>12</b>
University Of International Business	12
Auditing and Accounting Center	13
Comprehensive Course	13
Special Courses	14
International Business and Regional Development Center	14
<b>RUSSIAN FEDERATION FINANCIAL ACADEMY</b>	<b>14</b>
<b>THE INSTITUTE OF ECONOMICS, POLITICS AND LAW INTERNATIONAL UNIVERSITY</b>	<b>15</b>
<b>RUSSIAN FEDERATION ECONOMIC ACADEMY</b>	<b>16</b>
<b>STATE ACADEMY OF OIL AND NATURAL GAS</b>	<b>17</b>
<b>CENTER FOR BUSINESS SKILLS DEVELOPMENT</b>	<b>17</b>
<b>MOSCOW STATE ENGINEERING AND PHYSICS INSTITUTE</b>	<b>18</b>
<b>THE URALS POLYTECHNIC INSTITUTE.</b>	<b>19</b>
<b>EKATERINBURG UNIVERSITY OF ARTS</b>	<b>20</b>
<b>CHELYABINSK POLYTECHNIC INSTITUTE.</b>	<b>22</b>

## Summary

The following institutions are offering Western type business management courses. They have been contacted by us and are preliminarily interested in working with USAID and the Power Sector companies to develop appropriate courses: A partial description of the courses taught, by whom and contact numbers follows.

## MOSCOW

### MOSCOW STATE UNIVERSITY

#### *Faculty of Economics*

**Zeleznova Valeria Fominichna, Doctor of Science (Economy), Professor.**

tel. 939 5217/5055 (office); 245 2235 (home)

#### *Credit and Financial Systems in the West*

- The role of state financing in the western financial system
- Present tendencies in the development of Western monetary systems
- Loan market structure
- State credit and monetary policy

**Kasatkina Elena Andreevna, Ph.D. (Economy)**

tel. 939 5217 (office); 231 3598 (home)

#### *Modern Marketing in Foreign Companies*

- Company's marketing strategy
- Sales management
- Demand monitoring
- Pricing
- Role of advertising in modern marketing.

#### *Foreign Bank Marketing*

- Basic trends in bank marketing activity
- Bank marketing strategy and tactics

**Lychko Marina Lvovna, Ph.D. (Economy), Senior lecturer**

tel. 939 5217 (office); 267 5985 (home)

#### *Public Relations and Business Ethics in the West*

- Fundamentals of modern business ethics in the West
- Peculiarities of business ethics in the USA, countries of Western Europe and Japan

- Basic principles of public relations
- Role of public relations in foreign business

**Krylova Tatyana Borisovna, Ph.D. (Economy)**

tel. 939 5589 (office)

***Financial Management***

**Naumov Aleksander Ivanovich, Ph.D. (Economy)**

tel. 939-29-17

***Management Behavior***

- Company and manager relationships
- The individual in a company
- Activity motivation
- Objectives determination
- Scope of work determination
- Design of organizational structure
- Corporate culture
- Interpersonal relations
- Team dynamics
- Decision making
- Conflicts, power and leadership
- Changes in organizational structure
- Individual development and growth

***Seminar "The Effective Manager"***

## **MOSCOW STATE UNIVERSITY**

***Faculty of Economics Business School***

**Vikhansky Oleg Samuilovich, Doctor of Science (Economy), Professor, Chairman of the Production Management Department**

tel. 939-3725 (office)

***Strategic Management***

- Formation of small teams
- Strategic management
- Company environment
- Elaboration of company strategy
- Strategy fulfillment
- The concept of product in strategic management
- Product in a competitive market
- Product dynamics
- Strategy of human potential application

***International Management***

***General (Traditional) Management***

**Volkov I.M. - Ph.D. (Economy), Chairman of Accounting, Analysis and Auditing Department**

tel. 939 3297

**Gracheva M.V. - Ph.D. (Economy), Chairman of Mathematics Analysis in Economy Department**

Both lecturers have graduated from The World Bank Institute of Economic Development and gained considerable practical experience in the field of investment project analysis. They have prepared and conducted more than 35 seminars on project analysis. Their course of lectures and seminars relate to the analysis of project development, including investment projecting and recommendations on business plans for specific projects.

Lectures and practical studies are intended for different categories of students, specializing in specific projects and writing of business plans. Lectures include theoretical aspects, modern methodological principles and investment analysis.

Analysis of business plans for specific projects is conducted at the end of the seminar.

Seminars are of block structure that allows for adaptation to specific student requirements and time limits, incorporating both lectures and practical studies (mainly computer) based on modern teaching methods.

***Lectures Include:***

- Products, their environment and life cycle
- Developing business plans
- Project analysis instruments (including PC studies)
- Projects financial analysis (including PC studies)
- Risk and sensitivity analysis (including PC studies)
- Economic analysis of investment projects (including PC studies)
- Project management
- Project material and technical support
- Project expert examination and assessment on PC

**Aleinik Alexander Nikolaevich, Ph.D. (Economy)**

***Marketing***

***Sales Management***

**Solovjeva Olga Vitaljevna, Ph.D. (Economy)**

tel. 431 7126 (home); 939 3297 (office).

***Fundamentals of Western Accounting***

- The concept of accounting
- Accounting principles

- Fundamentals of international accounting
- Financial statements in western companies
- Balance sheet
- Profit and Loss statement
- Cash-flow statement
- Basics on auditing: concept, organization and regulation

**Avdokushin Eugene Fedorovich, Moscow State University, Moscow University of Consumers Cooperation, Professor**  
tel. 956-16-87(office)

***International Marketing***

- International marketing peculiarities
- Marketing in the external environment
- Marketing research of foreign markets
- Export resources assessment and organization of export-oriented production
- Participation in the international market
- Pricing policy
- Sales policy in the international market
- International marketing planning, management and control

***Free Economic Zones (FEZ), their Organization and Management***

This course of both foreign (including China) and Russian practice of FEZ organization and functioning is lectured at the Moscow State University and the Cooperative University. The author participated in the writing of the FEZ Act Draft, now under State Duma consideration .

**RUSSIAN FEDERATION MINISTRY OF FOREIGN AFFAIRS**

***Moscow State University Of International Relations***

**Rostovsky Juri Michailovich, Ph.D. (Economy)**

tel. 127 6260 (home); 434 9054 (office)

***Foreign Trade Operations Management and Contracts***

- Types of transactions, commodities purchase and sales, services purchase and sales, intellectual products purchase and sales
- Long and short-term transactions
- Special transactions, commodity exchanges, auctions
- Export transactions, contract terms and liabilities, negotiation and finalizing contracts
- Import transactions, contract terms and liabilities, negotiation and finalizing contracts

**Sokolova Marija Igorevna, Ph.D. (Economy)**

tel. 254 7358 (home); 433 8655 (office).

***Marketing***

- General concept of marketing
- Business organizational approach
- Marketing research
- Rules of market operations
- Assessment of company's real potential
- Marketing research
- Marketing system, commodities production, price, sales, public relations and human resource policy
- Marketing program and business plans preparation (computer classes)

**Lebedeva Larisa Petrovna, Ph.D. (Economy), professor.**

tel. 331 2238 (home); 433 8655 (office).

***Management***

- The concept of management
- Methods of company analysis
- Management structure in industry
- Management techniques
- Internal planning in companies
- Structural forms of management
- Administrative control in management
- Economic methods of management administration
- Production Management
- Management of company's international activity
- Human resource management
- Management and business environment.
- Regulation of inter-company market relations.

**ALL-RUSSIA ACADEMY OF FOREIGN TRADE.**

**Kretov Igor Ivanivich, Doctor of Science (Economy), Professor, the Head of Marketing Chair**

tel. 143-25-41 (office)

***Basics of Modern Marketing***

- Methods of modern marketing, its concept, principles and functions
- The analytic, production, sales, management, and control functions of modern marketing
- Complex market research as the basis of marketing
- Methods and practice of market research, cabinet and field research, market testing, methods of studying company internal operations, forms of marketing research

- Marketing and society

### ***Organization and Technique of Foreign Operations***

- Types of international commercial operations by different trades
- Peculiarities of foreign trade operations by main trading groups
- Commercial methods of foreign trade operations, direct export-import transactions, leasing, commodities exchange, franchising, production and sales cooperation
- Peculiarities of export-import transactions performed by international consortiums
- Structure and content of international sales/purchase contract

### ***Practical Marketing***

- Commodities and production policy
- Prices, pricing and pricing policy
- Commodities movement and marketing
- Marketing relations, demand development and sales promotion
- Marketing peculiarities of commodities
- Marketing organization in industry
- Role of business-planning in enterprises marketing
- Motivation of enterprises in foreign trade activities

### ***Practical Aspects of Contracting***

- Main stages in the preparation of a foreign trade transaction
- Commercial negotiations of a foreign trade transaction
- Supervision of contract realization
- Contract peculiarities by specific commodities. (Business role playing, commercial negotiations and sales/purchase contacts conclusion)

### **Ivashenko A.A., Ph.D. (Economy)**

#### ***Competitive Forms of Trading***

- Trading procedures and techniques at commodity exchanges
- The concept of the commodity exchange
- Centers of commodity exchange trading
- Bid procedure
- Bid documentation
- Settlements at the commodity exchange
- Peculiarities of brokers activity
- Peculiarities of the commodity exchange prices on goods
- The commodity exchange as an instrument of insurance against price fluctuation risks
- Goods delivery under the commodity exchange contracts
- Speculation (gambling) at the commodity exchange
- Options
- Auctions procedure
- Trading techniques at auctions
- Peculiarities of goods trading at auctions

*ef*

- International bids and their role in international commerce, bid preparation and procedure

**Zaitsev Leonid Grigorievich, Ph.D. (Economy), Dean of the International Commerce Faculty.**

tel. 254 7358 (home); 143 1279 (office).

***Management.***

- Strategic management
- Functions of management
- Models and methods of decision making
- Social and psychological aspects of management

***Finance***

- Role of business planning in the enterprise activity
- Management of investment projects
- Investment risks

***Marketing***

- Issues dealing with the application of marketing strategy in company business activity

***Public Relations***

***Forms and Methods of International Commerce***

***Development of Effective Company Operation***

***Methods and Technique of Transaction Negotiation, Conclusion and Execution in Foreign Trade***

***Purchase of Goods and Services for the State***

**Sokolova Olga Vladimirovna, Ph.D.**

143-75-94, 143-15-56 (office)

***Objectives of Financial Analysis***

- Objectives and methods of financial analysis
- Financial statements as the basis for financial analysis
- Balance sheet
- Revenue statement
- Statement of changes in financial situation
- Financial statements in a period of inflation.
- Financial policy of the company
- Application of financial ratios analysis
- Peculiarities of the financial ratios application in the analysis of Russian enterprises

***Types of Costs***

- Structure of company's cost
- Fixed and variable cost
- Price costing calculation
- Rate of return calculation
- Cost structure and risk

- The effect of operational incentives

***Working Capital Formation and Financial Incentives***

- The concept of working capital
- Company selection of capital structure to provide profitability
- The affect of financial incentives
- Capital structure and risk
- Advantages and disadvantages of long-term planning

***Policy of Attracting Investments and Assuring Company Growth***

- Financial objective of the company are to assure growth and increase the rate of return on investments
- Means of reaching this objective are by determining the best capital structure and dividend policy
- Interrelation between objectives and methods
- Selection of internal financing sources
- Justification for issuing additional shares

***Valuation of the Company for its Purchase or Sale***

- Assessment of the company's total value by discounting its future benefits
- Assessment of stock capital
- Role of rate of return and other indices in value assessment
- Dividends and share prices
- Determination of the share price by dividend amount

**STATE ACADEMY OF MANAGEMENT**

**Volodin Anatoly Alekseevich, Ph.D. (Economy), Professor**

tel. 371-4944 (office), 187-5775 (home)

***Enterprise Financial Management***

***Working capital. its Sources. Structure, and Indices of Economic Efficiency***

- Financial results of enterprise operation
- Interrelation between cost, revenues and profit
- Methods of incorporating cost of production
- Method of marginal costs
- Zero profit
- Types of profit
- Profit distribution
- Dividend policy
- Indices of economic efficiency

**Gorunov Pavel Vasilievich, Ph.D. professor (Economy), Chairman**

tel. 377-4989 (office) 955-3105 (home)

***Project Analysis in the Power Sector***

- General concept of project analysis

- Technical analysis
- Commercial analysis
- Financial analysis
- Analysis of the project's internal rate of return without external financing
- Environmental analysis
- Organizational analysis
- Social analysis

**Chetverchenko Irina Anatolievna, Ph.D.(Economy)**

tel. 377-4989 (office), 208-3411 (home)

***Project Management in the Power Sector***

- General concepts of project management
- Project life and stages
- Project participants
- Functions of project management, planning and control
- Methods of project financing
- Bids and bid documentation
- Types of contracts
- Role of the project manager and his team in project realization
- Major causes of project failure
- Practice of project management in the Russian power sector.

**Berezhnoy Alexander Grigorievich, Ph.D.(Economy)**

377-4989 (office)

***Procurement***

- Organization of international bidding
- Financial goals of bidding
- Bid procedure
- Bid documentation
- Mitigation of financial risks.

**Fedorova Alla Nikolaevna, Ph.D.(Economy)**

tel 371-2200 (office), 467-6343 (home)

***Procurement (Designed for governmental officials responsible for bid structure in compliance with World Bank regulations)***

- Main steps in preparing bid documentation and its content
- Practical aspects of bid participation
- Methods of bid evaluation and awarding

***Futures***

- Strategy for futures market evaluation
- Future operations as an instrument of insuring commercial contracts

***Options***

- Introduction to the option as a financial instrument
- Strategies of using options as stock exchange instruments

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**Kokhanov Evgeny Fedorovich, Ph.D. (Engineering)**

tel. 917 2446 (home); 371 6996 (office)

***Human Resources Management, (Lectured by British Open University Methods)  
Enterprises' Personnel Policy (Conducted by active personnel managers)***

- Staffing
- Orientation
- Training
- Assessment of qualifications
- Consulting (including disciplinary issues, complaints, etc.)
- Business relations
- Motivation by incentive
- Conflict resolution
- Termination

**Kiselev Boris Nikolaevich, Ph.D. (Economy), Chairman of Invention Management.**

tel. 371 9102 (office)

***Strategic Management***

- Analysis of internal and external environment
- Strategic planning
- Goal realization

***General Management***

- Operational organization, planning, control and management
- Human resource management
- Leadership

***Operational and Production Management***

- Product selection
- Technology evaluation
- Determination of capacity
- Location of enterprises
- Planning
- Control

**Azoev Gennady Pavlovich, Ph.D. (Economy)**

Tel. 377 1629 (office)

***Marketing***

***Analysis of Competitor's Activity (special course for marketing analysts).***

**Aleshina Irina Victorovna, Ph.D. (Economy)**

***Public relations***

***Marketing communications.***

**Berezhnoy Michail Nicolaevich, Ph.D. (Economy)**

***Marketing***

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**RUSSIAN FEDERATION GOVERNMENT**  
**ACADEMY OF NATIONAL ECONOMY**

***University Of International Business***

**Bykov Vjacheslav Arsenjevich, Director and Professor-coordinator of Executive MBA program.**

Tel. 433 2584

Fax: 433 2577

***Innovative Management.***

- Innovative industrial strategies
- Interaction of R&D and Marketing services in implementation of innovative strategies
- Functions of marketing divisions in development of new products
- Managing new inventions in industry
- Life cycle of innovative products

***Development and Production of Competitive Products.***

- Conceptual product development
- Market research and product development
- Analysis of products strong and weak points
- Project life cycle
- Indices of project competitiveness, quality, pricing, sales and promotion methods
- Assessment of competitiveness (differential, complex, expert, matrix and integral)
- Algorithm of new commodity development
- Reducing the cycle of development and production
- New product planning
- Formation of the enterprise product mix
- Overcoming technical barriers to product development
- Application of international, national, regional and other standards for product development

***Quality Management.***

- Modern standards of quality management
- Organization of quality control management (principles, structure and functions)
- International ISO-9000 standards
- Commodity certification
- Technological assessment
- Evaluation of the technical aspects of production

- Evaluation of the quality of labor
- Integral assessment of competitiveness

### ***Auditing and Accounting Center***

**“Training of Russian Specialists in Accounting and Auditing” (based on the International Estacis program).**

tel. 433 9959

**Lipatova Larisa Nikolaevna, Deputy program director**

### ***Comprehensive Course***

#### ***Fundamentals of Accounting***

Kondrakov N.P., Doctor of Science, (Economy), Professor

Krasnova L.P., Ph.D. (Economy)

‘Ernst & Young’

#### ***Financial Statements***

Paly V.F., Doctor of Science, (Economy), Professor

‘Deloitte & Touche’

#### ***Management***

Sheremet A.D., Doctor of Science, (Economy), Professor

Volkov I.M., Doctor of Science, (Economy), Professor

Saifulin R.S., Doctor of Science, (Economy), Professor

Nikolaeva O.E., Ph.D. (Economy)

Shishkova O.E., Ph.D. (Economy)

KPMG company

#### ***Financial Management.***

Sokolov J.V., Doctor of Science, (Economy), Professor

Kovalev V.V., Doctor of Science, (Economy), Professor

‘Coopers & Lybrand’

#### ***Fundamentals of Auditing***

Danilevsky J.A., Doctor of Science (Economy)

‘BDO’ company

#### ***Commercial and Tax Law***

Peneljaev S.G., Ph.D. (Law)

‘Deloitte & Touche’

#### ***Advanced Course (for specialists)***

Management for Chief Accountants and Finance Managers

Sheremet A.D., Doctor of Science (Economy), Professor  
'KPMG' company

***Special Courses***

***Staff Training and Methods of Training***

Poljakova S.I., Ph.D.  
'Ernst & Young'

***Consolidated Financial Statements***

Novodvorsky V.D., Doctor of Science, Professor  
'Price Waterhouse'

***International Business and Regional Development Center***

**Hrutsky Valery Evgenjevich, Doctor of Science, Professor, Director**  
tel. 434 9472; fax: 433 2565 (office); tel. 235 5158 (home).

***Business Plans, Their Purpose, Principles and Composition***

***Company Financial Planning and Budgeting***

***Costs, Their Classification and Distribution***

***Financial Statements--Profit and Loss, Cash Flow, Balance Sheet***

***Inventory Control***

***Quality Control Systems,***

***Increasing Productivity.***

**RUSSIAN FEDERATION FINANCIAL ACADEMY**

**Stojanova Elena Semenovna, Ph.D. (Economy), Professor. Director of the Financial Management Institute of the Academy of Management and Markets**

tel (Fax): 962 3126 (home); 584 8185 (office; Academy of Management and Market);

215 9624 (office; Financial Academy)

***Financial Management***

- Financial analysis
- Financial mathematics
- Logic of enterprise financial mechanism
- Operational financial incentives
- Risks
- Long-term strategy of financial management
- Short-term strategy of financial management

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- Combination of short-term and long-term financial management

**Chair of Investment Financing and Management Fedotova Marina Alekseevna,  
Doctor of Science (Economy), Professor**

***Financial Management***

***Long-Term and Short-Term Financial Policy***

***Analysis Of Financial Results***

***Analysis Of Financial Factors***

***Dupont Model***

***Analysis of Business Risks***

***Assessment Of Companies Value, Financial State and Stability***

***Analysis Of Investment Projects And Decisions***

***Estimation Of Realty Investments.***

**Utkin Eduard Andreevich, Doctor of Science (Economy), Chairman of  
Management, Academician of the Academy of Management and Market  
tel. 283-7961(office), 129-0834 (home)**

***Management (Bank, Financial, Insurance)***

***Marketing***

***Human Resources Management***

***Planning And Forecasting In Market Economy***

***Pricing In Market Economy***

***Anti-crisis Management***

**Hudjakov Sergei Sergeivich, Ph.D. (History), Director of the USAID Center for  
Support of Free Enterprises.**

***Applied Marketing***

***Market Investigations and Analysis***

***Calculation of Market Capacity and Segmentation***

***Product Innovation and Positioning, Commodity Policy***

***Pricing and Policy***

***Product Distribution in the Market***

***Advertisement and Promotion***

***Public Relations in Marketing.***

**THE INSTITUTE OF ECONOMICS, POLITICS AND LAW  
INTERNATIONAL UNIVERSITY**

**Livshits Veniamin Naumovich, Ph.D., Professor, the PF Honored Scientist  
tel. 135-4547 (office), 284-6897**

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*Macroeconomics (Traditional, with Peculiarities Of Russian Economy)*  
*Microeconomics (Traditional, with Peculiarities Of Russian Economy)*  
*Efficiency Of Resource Use in a Planned, Market and Transitional Economy.*  
*Analysis of Investment Projects.*

- Project cycle description
- Principles and methods of projecting investments
- Methods for cash flow analysis
- Assessment of economic, financial and budget efficiency
- Risks and uncertainty

***Financial Analysis***

**Orlova Elena Rualdovna, Ph.D.**

135-4544 (office)

**Project Analysis (World Bank Method)**

- The concept of the project cycle
- Types of project analysis
- Difference between financial and economic analysis

**RUSSIAN FEDERATION ECONOMIC ACADEMY  
NAMED AFTER G.V. PLEHANOV**

**Bykova Ekaterina Victorovna, Ph.D. (Economy)**

tel. 261 2135

***Management Accounting and Control***

- Content and purpose of managerial accounting  
Comparative characteristics of managerial and financial accounting.
- Definition and classification of costs  
Cost definition and estimation, determination of alternatives and classification.
- Cost analysis and revenue control  
Maximizing revenue, break-even analysis.
- Method pricing and distribution of costs  
Calculation of costing, distribution, and classification.
- Planning, budgeting and control  
Fundamentals of planning, formation of budgets, "standard cost" systems, deviation analysis for cost control, flexible budgeting.
- Decision making in management  
Informational decision making. Margin and elasticity analysis. Selection of investment projects.

***Financial Management***

- Financial analysis of operations

Financial planning. Financial statement analysis, cash flow analysis, correlation between revenues, working capital and cash flow. Calculation and affect of financial incentives. Policies for rational borrowing of capital. Evaluation of financial risk, planning for profitability. Operational management.

- Formation of capital and optimization of financial source structure  
Process of capital formation, its concept and calculation. Internal and external financing.
- Management of working capital  
Management of current assets and liabilities. Calculation and analysis of financial and operational needs of the enterprise. Management planning and inventory optimization.
- Enterprise investment policies  
The concept of the temporary cost of money. Basic methods for selection of investment projects. Formation of investment portfolio. Risk and revenues from investment activities.

## **STATE ACADEMY OF OIL AND NATURAL GAS NAMED AFTER GUBKIN.**

**Zubareva Valentina Dmitrievna, Ph.D. (Economy), Professor.**  
tel. 930 9313 (office); 325 3740 (home).

### ***Investment Management.***

- Investment analysis
- Financial and economic analysis
- Business planning
- Finance planning
- Ecological analysis
- Social analysis

### ***Analysis of financial and economic activities.***

- Evaluation of financial situation, stability, liquidity, business activity

## **CENTER FOR BUSINESS SKILLS DEVELOPMENT**

**Chuvahina Tatjana Genrihovna, Ph.D. (Economy), Institute of USA and Canada.**  
Tel. 434 3436; 8 2 902 9164.

### ***Financial Management***

**Tereshenko Boris Ivanovich, Ph.D. (Economy), Institute of USA and Canada.**  
Tel. 434 3436; 8 2 902 9164.

***Financial Management***

**Ostrovskaja Marina Nikolaevna, Ph.D. (Engineering), Academy of National Economy.**

Tel. 434 3436; ; 8 2 902 9164.

***Financial and Investment Analysis***

***Project Management***

***Business Planning***

**Klarin Michail Vladimirovich, Doctor of Science (Pedagogic), Institute of Educational Theory and Pedagogic.**

Tel. 434 3436; ; 8 2 902 9164.

***Project Management***

***Communication***

***Psychology***

**Gurov Andrei Petrovich, Institute of Latin America.**

Tel. 434 3436; ; 8 2 902 9164.

***Methods of Real Estate Evaluation***

***Human Resources Management***

**Shakalova Marina Vjacheslavovna, Ph.D. (Economy), Academy of Foreign Trade.**

Tel. 245 5900.

***Business Planning***

***Company Economy***

***Free Enterprises***

***Finance Management.***

**MOSCOW STATE ENGINEERING AND PHYSICS INSTITUTE**

**Urezchenko Vladimir Makarovich, Ph.D. (Engineering, major - Power systems),  
Chair of System Analyses.**

Activity domain - Energy Systems Analysis

Tel. 321 4956 (office); 320 2775; 437 1090 (home).

Fax: 321 4992.

***Basic Concepts Of Investment Project Analysis.***

- Project cycle
- Aspects of project analysis
- Project management

***Fundamentals Of Economics Applied In Project Analysis***

- Resource scarcity
- Opportunity cost
- Supply and demand

- Elasticity
- Marginal approach
- Time value of money

***Methods Of Project Analysis***

- Cost/Benefit approach
- Cash flow
- Criteria for project assessment

***Financial Analysis***

- Financial activity of companies
- Types of costs
- Fundamentals of Accounting
- Financial documentation
- Financial indices

***Project Financing***

- Financial market
- Financial management

***Economic Analysis***

- Shadow prices
- External factors

***Risk and Uncertainty***

***Commercial Analysis***

- Market analysis
- Market structure
- Production optimization
- Basic concepts of marketing

***Institutional and Organizational Analysis***

- Project owners
- Organizational structure
- Planning

***Software for Project Analysis***

**EKATERINBURG**

**THE URALS POLYTECHNIC INSTITUTE.**

**Etkind Jury Lvovich, Doctor of Science (Economy), Professor, Head of the Management Chair**

tel. (343 2) 448862 (office); (343 2) 240196 (home)

***General Management***

***Project Management***

***Automatic Control Systems***

**Shilkov Vladimir Ilyich, Ph.D. (Economy)**

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tel. (343 2) 448485 (office)

*Strategic Management*

*System Analysis In Management*

*Marketing*

*Management*

*Economics Of Industry*

*Automatic Control Systems*

**Platonov Anatoly Michailovich, Ph.D. (Economy), Chairman**

tel. (344 2) 448650 (office)

*General Management*

*Project Management*

## **EKATERINBURG UNIVERSITY OF ARTS**

This is one of the first private schools in Russia in the post communist period, registered on December 27, 1990. Courses began on February 1, 1991 and the school has five departments; Commercial, Legal, Department of Social Psychology, History of Culture and Design. Length of study is five years. The University received got State High Education Committee License on July 6, 1992. Total number of students is 1203.

**Mishek Sergei Aleksandrovich - the Dean of the Department (Graduated from the Moscow State University, Department of Economy in 1994. He was a probationer in the World Bank, USA ( Washington, D.C.)and received a World Bank certificate in Banking management)**

tel. (3432) 44-5204, 44-5190 (office), 56-3157 (home)

fax: (3432) 55-7002

E-mail: [govorova@gum.quorus.e-burg.su](mailto:govorova@gum.quorus.e-burg.su)

Address: 19 Studencheskaja Street,  
620049, City of Ekaterinburg,  
University of Arts.

### ***Economic Theory and Business Fundamentals***

Classic economics course, includes all traditional aspects of micro- and macroeconomics. This course is characterized by detailed analysis of institutional aspects of Economics (organizational forms of business, exchanges, stock market, financial institutions, etc.).

### ***Mathematical Models in Economy***

This course presents basic mathematical models of economics (production functions, demand functions, equation models, game theory).

### ***Economics of Financial Institutions***

Surveys both international and national practices of banking and lending, rating and mathematical models of bank financial analysis (CAMEL system, etc.), modeling of credit analysis.

**Bersenev Vladimir Leonidovich (graduated from the Urals State University, Department of History).**

***History of Foreign Economic Ideas***

This course surveys Western economic theory from the 17th to the 20th century, including both classical and non classical theories.

**Turgel Irina Dmitrievna ( graduated from the Urals State University, Department of Economy).**

***International economy***

Detailed analysis of international trade and finance theories, operation of international financial and trading institutions, payment problems and currency exchange rates.

***Money and Money Circulation***

Survey of basic monetary theories, state lending policies and its impact on the national economy, instruments of money markets and financial institutions.

**Uljanova Irina Valerievna ( graduated from Sverdlovsk Institute of National Economy (SINE). Completed training program of the World Bank courses in Russia, received a certificate in financial and bank management)**

***Financial Management***

Classic course, incorporates basic topics of financial management (financial factors, rational structure of capital, rate of return analysis, 'beta-risk' theory, and working capital management).

***Foreign Accounting***

Western accounting systems, particularly those of Great Britain and the United States, supplemented with a short survey of accounting systems used in Continental Europe.

**Rudjanskaja Ludmila Stanislavovna (Graduated from the Urals State University, Department of Economy)**

***Management***

Classic course containing management theories, principles of business planning, management innovations, motivation and control theories.

***Economics of Labor and Personnel Management***

Analysis of labor markets, unemployment problems, personnel management in industry and incentive systems.

**Khohlova Natalia Vladimirovna (Graduated from Urals State University, Department of Economy)**

***Marketing***

Classic course with basic principles of marketing; problems of market segmentation, positioning in the marketplace, pricing strategies, selection of sales channels.

**Mamjachenkov Vladimir Nikolajevich (Graduated from Sverdlovsk Institute of National Economy)**  
*State Finance*

Analysis of local and central budget formation, taxation and management of state debt.

**CHELYABINSK**

**CHELYABINSK POLYTECHNIC INSTITUTE.**

**Ivlev Sergei Borisovich, Ph.D. (Engineering), Chairman of the Accounting and Finance Department**

Tel. (351 2) 399486.

**ST. -PETERSBURG**

**UNIVERSITY OF ECONOMY AND FINANCE**

**Romanovsky Michail Vladimirovich**

Tel. 8 812 310 4071

*Finance*

**Leontjev Vladimir Evgenjevich, Doctor of Science (Economy), Professor.**

**Samomova Irina Nikolaevna, Ph.D.(Economy), Senior lecturer**

*Personnel Management*

*Finance Planning*

*Benefits Planning*

**Skorodumov Victor Aleksandrovich, Ph.D. (Economy)**

**Leontjeva Jemilja Galeevna, Ph.D. (Economy)**

Tel. 8 812 310 4924

*Accounting*