

PW-ACH-465
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**ASSESSMENT OF ARMENIAN POWER
SECTOR RESTRUCTURING**

Prepared for:

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February 12, 1998

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EXECUTIVE SUMMARY

The Government of Armenia has made significant progress in restructuring the electric power sector. The primary goal of sector restructuring sought to address the sector's financial crisis by creating a legal, regulatory and economic framework conducive to investment. This goal is beginning to be realized following the passage of a national Energy Law and the creation of an independent Energy Regulatory Commission (ERC) in 1997. Structural changes, such as the separation of generation and distribution from Armenergo, were carried out in order to localize decisionmaking and increase management accountability within the sector. At the same time, the Ministry of Energy worked toward improving sector cash flow through increasing the rate of collections and allowing distribution enterprises to cut off nonpaying customers. Power supply improved dramatically and today 24 hour supply is the norm in most parts of the country.

As of January 1, 1998, all sector distribution and generation enterprises, and Armenergo, were converted into closed joint stock companies. Each company has its own corporate charter and bylaws and its own Board of Trustees, comprised in part by representatives from Government ministries. Over the next 18 months distribution companies are scheduled to be privatized through international tenders involving strategic investors. It will be important to work closely with the relevant ministries and target corporations in order to help facilitate successful privatization.

Most recently, the Government issued Resolution 551 which outlines plans for the financial rehabilitation of the sector and shifts the primary focus from sector to enterprise restructuring. The resolution outlines several concepts aimed at improving the sector's financial condition, including the need to establish financial principles of rehabilitation, implementation of internationally accepted accounting principles, reduction of power losses, regulation of cash flow, tax treatment of bad debts associated with the sale of power, improved cash collections, and loan and debt restructuring. It also identifies several potential sources to help improve the sector's financial condition, including the use of cost-based tariffs, improvement in the collection of accounts receivable, various forms of debt and tax relief, and debt restructuring. The concepts presented in Resolution 551 are timely and appropriate. The challenge, of course, will be whether the Government follows through on the ideas presented in the resolution.

While important restructuring tasks have been accomplished or are underway, several fundamental issues have not received sufficient attention. Failure to act on these matters will mute the impact of many other important restructuring developments. The most urgent outstanding restructuring tasks, listed in order of importance, are highlighted below:

- ▶ **Financial Settlements.** Improvement in the transparency of the financial settlements process is the most important restructuring task yet to be seriously addressed. The establishment of a transparent financial settlements process is essential to the rehabilitation and development of the sector. Failure to establish and enforce such a process will result in the continued insolvency of generation companies, opposition to Armenergo carrying out the dispatch function, a potential marginalization of the ERC, and a lack of investor confidence in the sector. It is imperative that the Inter-Ministerial Financial Settlements Working Group convene and begin discussions on settlement options. (The creation of an Inter-Ministerial Working Group on Financial Settlements is required by the 1997 Memorandum of Understanding between USAID and the Government of Armenia.)

- ▶ **Regulation.** The creation and subsequent development of the ERC is arguably the most successful aspect of power sector restructuring to date. Regulation plays a central role in or has direct implications for virtually all aspects of sector restructuring, underscoring the need for continued progress on the many regulatory issues yet to be addressed. These issues include a permanent source of funding for the ERC through use of license fees, greater opportunities for public involvement in the regulatory process, enhanced development of regulatory reporting such as power flows and collections/cash flow reports, and issuance of rulemakings with respect to wholesale market structure and regulation of Armenergo and its dispatch function.

- ▶ **Wholesale Market Structure.** The wholesale market structure needs to be better defined in order to attract investment and help facilitate power sector privatization. Completion of sector unbundling and passage of the Energy Law were important steps to lay the groundwork for the wholesale market, but little progress has been made since with respect to market design and operation. In the near term a “single buyer” approach in which all generators sell under contract to the transmission/dispatch utility is the most likely option. The Energy Law, however, allows for generators to contract directly with customers and distribution networks and mechanisms to facilitate these transactions within a single buyer market model need to be discussed and developed. Over the longer term, as the sector’s financial crisis diminishes and opportunities for cross-border wheeling arrangements emerge, the market structure should be revisited in order to assess the appropriateness of more competitive structures such as those that incorporate supply bidding and allow for the use of financial instruments to mitigate price risk.

- ▶ **Separation of Transmission and Dispatch.** Armenergo currently carries out both power transmission and dispatch functions. The Energy Law requires that the transmission and dispatch functions be separated by June, 2000. In November, 1997, Hagler Bailly prepared a report, *Armenergo Management and Organizational Review*, critiquing Armenergo's overall management and organization capabilities. This work touched on transmission and dispatch and acknowledged the need for additional study of structural options. It is recommended that additional analysis be carried out to assess how Armenergo should be reorganized and to develop a timetable for its reorganization.
- ▶ **Commercialization.** Initial commercialization efforts are underway but financial and operational independence of many joint stock corporations from the Ministry of Energy is lacking. There is evidence that the Ministry remains directly involved in the managerial and operation decisionmaking within sector corporations. This practice is not in compliance with the Energy and Joint Stock Company laws and must be discouraged. It is quite possible that the only way to address this continuing problem is through aggressive privatization.
- ▶ **Distribution Consolidation.** Further consolidation of the distribution sector, from 11 independent networks to as few as three or four, is suggested in order to realize efficiencies of scale and to create companies of sufficient size to warrant investor interest.
- ▶ **Corporatization.** A flurry of activity was carried out in the last weeks of December, 1997 in order to meet the deadline that all energy sector enterprises be converted into closed joint stock companies by the beginning of 1998. Armenergo, along with each independent generator and distribution network, adopted this new corporate organization. As closed joint stock companies, each company adopted a corporate charter, by-laws, and is in the process of appointing a board of trustees. Given the speed at which this conversion took place, it is likely that the concept of corporatization is not fully understood by the management and directors of each corporation, much less by their employees. Continued technical assistance on corporatization and corporate governance is highly recommended for power sector management.

Through its actions the government has demonstrated its commitment to power sector restructuring and many crucial changes have been realized as a result. Restructuring remains incomplete in many important areas, however, and additional reform tasks need to be carried out in order to fully realize the goal of sector rehabilitation and development.

CHAPTER 1

INTRODUCTION

1.1 OVERVIEW

This report has been prepared with the support of the U.S. Agency for International Development (USAID) as part of the energy sector privatization and restructuring technical assistance provided under contract CCN-0002-Q-00-3152-00. The purpose of this report is to briefly assess the status of power sector restructuring in Armenia. Given that resolving the sector's financial crisis is a strategic objective of USAID and a stated objective of the Government of Armenia (GoA), this report describes the issues that must be considered to complete the outstanding sector restructuring activities and to facilitate restructuring at the enterprise level.

This report provides a review of the power sector restructuring activities taken place to date as well as those proposed in Resolution 551, the Government's most recent policy statement on sector restructuring issued in December, 1997. The report assesses the impact of restructuring activities and prioritizes outstanding recommendations in light of current sector structure and needs.

This is a companion document to the report entitled *Armenia Power Sector Restructuring: Recommendations for Reform*, issued in April, 1996. This report is intended to identify the next steps required to help complete power sector restructuring in Armenia.

1.2 THE NEED FOR CONTINUED POWER SECTOR RESTRUCTURING

Armenia has made considerable progress in the areas of power sector restructuring, regulatory reform and commercialization. The former vertically-integrated state-owned utility Armenergo has been unbundled along the functional lines of generation, transmission/dispatch and distribution. There exist six independent generation companies as well as several privatized small hydroelectric stations. Eleven distribution utilities were created in 1997 and corporatized at the beginning of this year. By mid-2000, the dispatch and transmission functions are required by law to be functionally separated.

Although much progress has been made, important restructuring tasks - including development of a transparent financial settlements process, definition of the wholesale power market, and acceleration of sector commercialization - still need to be carried out in order to capitalize on the progress made to date and to enhance the sector's attractiveness for private investment.

1.3 ORGANIZATION OF THE REPORT

This report is organized into a series of chapters. Chapter 2 briefly characterizes the condition of the power sector in the pre-restructuring period and describes the objectives of power sector reform. The chapter also reviews the project team's restructuring recommendations. Chapter 3 summarizes the current status of restructuring, identifying sector restructuring activities completed to date and their impacts. Chapter 4 concludes with a series of suggested next steps for USAID's consideration that outline the possible areas for continued assistance with Armenia's power sector restructuring efforts.

CHAPTER 2

BACKGROUND

2.1 INTRODUCTION

Armenia faced a severe energy crisis from 1992 through mid-1996. Electricity supply to most customers was generally limited to two hours per day and natural gas use was restricted to power generation rather than residential heating, forcing most people to survive the cold winters by burning wood and other combustible materials. Armenia, which is almost completely dependent on imported fuel for its thermal generating stations, relied more heavily on domestic hydropower for electric generation. When hydro production became constrained, the country responded by increasing natural gas imports (and therefore accumulated a large gas debt) and, in 1996, by reopening the Medzamor nuclear power plant.

During the height of the energy crisis, collections plummeted to less than 20 percent of delivered supply. The low level of collections, combined with retail tariffs that did not cover the cost of supplying power, inadequate metering, poor investment planning, and excessive centralization of decision making all contributed to the sector's financial crisis. In addition, non-payment in the industrial sector was complicated by government intervention on behalf of strategic industries.¹

2.2 RESTRUCTURING OBJECTIVES

In order to address the problems facing the sector in 1995, Hagler Bailly, in conjunction with Armenian policymakers, identified a number of restructuring objectives. Key objectives are summarized below:

- ▶ Improving the technical performance of the power sector and ensuring adequate and reliable power supply.
- ▶ Improving the financial performance of the power sector including higher levels of bill collection and reduction in commercial losses and theft.

¹ For a detailed discussion of the Armenian power sector, see the following Hagler Bailly reports: *Armenian Power Sector Restructuring: Recommendations for Reform* (April, 1996); and *Development of a Privatization Strategy for the Armenian Power Sector* (August, 1997).

- ▶ Creating a market-oriented power sector that encourages competition wherever feasible and which offers financial incentives for performance improvement.
- ▶ Enhancing the conditions for private investment.

Significant progress has been made over the past two years. Still, additional work is required in order to fully accomplish these ambitious objectives.

2.3 SUMMARY OF RECOMMENDATIONS

Throughout 1995 and 1996, Hagler Bailly presented to the Government of Armenia a set of power sector restructuring recommendations in recognition of the fact that Armenia's vertically-integrated, state-owned monopoly structure was incapable of meeting the country's energy needs. The goal of restructuring was to more efficiently meet Armenia's power requirements and improve the sector's financial condition.²

Based on the objectives identified above, a number of recommendations were developed. A summary of the most critical recommendations and status of implementation are as follows:

- ▶ **Complete sector unbundling.** Sector unbundling was recommended to help improve accountability within the sector by localizing decisionmaking and making transactions among sector enterprises more transparent.

Status: In December, 1995, the Minister of Energy announced a plan to restructure the power sector. The plan functionally unbundled Armenergo, creating three generation enterprises and more than 50 distribution enterprises, all of which remained completely state-owned. Armenergo maintained responsibility for transmission and dispatch and retained some generating capacity. The separation of remaining generation from Armenergo occurred in mid-1997. In its current form, Armenergo is responsible for transmission and dispatch functions and plays a key role in financial settlements.

- ▶ **Achieve passage of a comprehensive Energy Law.** An energy law was needed to create the legal framework and regulatory principles governing the sector. Importantly, the legislation needed to define the authority (and limitations) of

² The introduction of price-based competition into the generation subsector was not an explicit goal of restructuring given Armenia's power sector characteristics. The limited number of generators coupled with the heavy dominance of nuclear and hydroelectricity and prolonged fuel constraints effectively precluded price-based competition in the generation subsector at the outset of restructuring.

various institutions involved in the sector, to advance sector financial rehabilitation by reducing the uncertainty associated with sector investment.

Status: In June, 1997, the National Assembly passed a national Energy Law which established the legal framework governing the sector.³

- ▶ **Establish an independent regulatory body.** The creation of an independent regulatory agency was needed to limit political and ministerial interference in sector planning and operation. Further, independent regulation was expected to play a central role in introducing stability and predictability into the sector through a rule-based system and a process for appeal of regulatory decisions. Although price-based competition in the generation sector is not an option in the short term, a performance-based regulatory scheme was suggested that would offer incentives to generators to improve performance, based on a series of established performance criteria. It would also be used to regulate the transmission and distribution sectors based on explicit performance and productivity benchmarks.

Status: In April, 1997, a Presidential decree was signed, establishing the Energy Regulatory Commission, which is responsible for tariff approval, contract approval, quality of service and licensing. The Commission was further codified by the passage of the Energy Law in June, 1997.

- ▶ **Consolidate the distribution sector into regionally-based utilities.** Distribution consolidation was recommended as a second phase of the restructuring process to take advantage of economies of scale and to make distribution utilities more attractive to private investors.

Status: Over the course of 1996, the number of distribution enterprises increased to more than 60. In early 1997, the first phase of distribution consolidation was completed, reducing the number of regional distribution enterprises to 11. The USAID/Hagler Bailly project team has argued from the outset for additional distribution consolidation (to three or four regional utilities), but at present there are no immediate plans to do so.

- ▶ **Adopt a joint stock company form of organization for power sector enterprises.** A state enterprise method of organization is an inadequate form of corporate organization and governance in a commercialized industry setting. The benefits of corporatization include improved clarification of ownership and managerial responsibilities, stronger removal of the Ministry of Energy's role

³ See Hagler Bailly Memorandum summarizing the Energy Law, dated June, 1997.

from day-to-day operation and management, and improved incentives for efficiency.

Status: As of January 1, 1998, most sector distribution and generation enterprises, and Armenergo, were converted into closed joint stock companies. Each company has its own corporate charter and bylaws and its own board of trustees, comprised in part by representatives from three government ministries (Privatization, Finance/Economy, and Energy). Over the next 18 months distribution companies are scheduled to be partially privatized, ideally through international tenders involving strategic investors.

As this chapter demonstrates, over the past two years the Government has successfully implemented a number of these recommendations in whole or in part and the sector's performance when viewed on a number of factors, including power supply/reliability and collections, has improved significantly. At the same time, several other key recommendations have yet to be fully implemented and there still exists a great deal of opportunity to improve sector efficiency. Chapter 3 will summarize the current state of reform in the power sector.

CHAPTER 3 CURRENT STATUS

3.1 INTRODUCTION

In December, 1997, the Government issued Resolution 551 which outlines plans for the financial rehabilitation of the sector and shifts the primary focus from sector to enterprise restructuring.¹ The Resolution outlines several concepts aimed at improving the sector's financial condition, including the need to establish financial principles of rehabilitation, implementation of internationally accepted accounting principles, reduction of power losses, regulation of cash flow, tax treatment of bad debts associated with the sale of power, improved cash collections, and loan and debt restructuring. It also identifies several potential sources to help improve the sector's financial condition, including the use of cost-based tariffs, improvement in the collection of accounts receivable, various forms of debt and tax relief, and restructuring.

With respect to collections, the Resolution states that the average level of collections (without so called "overplanned losses") will be 86% in 1998 and 93% in 1999 and that starting in the year 2000, full payments for electric power will be achieved. The Resolution does not indicate how these percentages were derived or the incentives and penalties that will be implemented to help meet these targets.

Despite its many positive aspects, the Resolution is not without its shortcomings, the most notable of which is the confusion regarding references to a "Financial Sustainability Rehabilitation Program" for the energy sector. It is unclear which entity (or entities) is responsible for implementing the Program and which entity is responsible for ensuring compliance with the financial discipline and transparency measures established by the Resolution. Also, much more detailed information is required to assess what effect the Program might have on a particular energy entity.

Overall, the Program is fairly comprehensive (despite areas identified that require further detail) and has the potential to establish an environment in which significant improvement can be achieved in the financial viability of the energy sector. The Resolution demonstrates that the government is well aware of the problems facing the energy sector and that it has identified a generally sound approach to addressing these problems.

¹ See attached Hagler Bailly Memorandum summarizing Resolution 551, dated January, 1998.

3.2 EFFECTS OF RESTRUCTURING

USAID/Hagler Bailly has been recognized by the Government of Armenia for playing an instrumental role in promoting power sector restructuring. The project team provided technical assistance on restructuring policy formulation and implementation and was directly involved in every aspect of significant restructuring developments, including passage of the Energy Law, creation of the ERC and development of its scope of activities, and execution of sector unbundling. In addition, the project team supported restructuring activities through training seminars and study tours on regulation and privatization. Importantly, every major restructuring recommendation put forth by the project team has been or is in the process of being implemented.

The restructuring of the electric power sector has made a major contribution to the restoration of electricity on a 24-hour basis throughout the country. Even though the total amount of energy generated in the country on an annual basis has fallen slightly compared to 1993, the availability of power has been restored from approximately two hours per day to 24 hours per day. Better organization and management of the sector is being credited with these results.²

While power supply reliability has improved dramatically relative to 1995, the sector still faces a host of problems. The sector's financial condition is still poor and its debt burden continues to grow. The rate of retail collections, which averaged about 60% in 1997, is below forecast levels and non-payment from state-owned industries continues to be the leading contributor to the collections problem. Tariffs, which were increased by the ERC in 1997, are still not sufficient to cover costs. Further, many sector managers do not have a clear understanding of cost concepts (average costs versus marginal costs) and have insufficient information on their cost structures. Payments from Armenergo to generators are not consistent and do not follow a transparent process. Finally, consensus has not yet been reached regarding the structure of the wholesale power market.

Exhibit 3-1 compares the status of the power sector prior to restructuring with its current status. This comparison is made with respect to a number of criteria such as reliability of power supply, regulation of the sector, financial management, and unbundling.

² See, for instance, the comments of the former President's spokesman, Mr. Zurabian, in *Noyan Tapan*, May 7, 1997, ... "now Armenia can produce more electricity than it actually needs due to reforms and restructuring in the power sector..."

**Exhibit 3-1
The Armenian Power Sector
Pre- and Post Restructuring**

Criteria	Prior to Restructuring	Current Status
Power Supply	<p>Power was only available up to two hours per day for most customers.</p> <p>Illegal distribution system operated throughout Yerevan.</p>	<p>Power is typically available on a 24 hour basis.</p> <p>The illegal distribution system has been largely eliminated.</p>
Regulation	<p>Regulation was handled by the Ministry of Energy (and later by the Tariff-Setting Committee).</p> <p>Sector characterized by little accountability and transparency.</p>	<p>Energy law is passed establishing legal basis for Energy Regulatory Commission and principles of regulation.</p> <p>Energy Regulatory Commission assumes responsibility for tariffs, licensing, contract approval and performance monitoring</p>
Tariffs	<p>Lack of cost-based tariffs.</p> <p>Uniform national tariff requirement distorts transfer prices.</p>	<p>Legal basis for cost-based tariffs is now in place for noncompetitive functional areas.</p> <p>Tariffs at least now cover operation and maintenance costs.</p> <p>Uniform tariff requirement still in place.</p>
Financial Condition	<p>Control of financial resources resided within the Ministry of Energy and Armenergo.</p>	<p>The sector remains under capitalized but its financial status and prospects have improved relative to 1995.</p> <p>Ministry of Energy focuses on policymaking but still maintains an excessive amount of day-to-day operational control of the power sector.</p> <p>The financial settlements process still lacks sufficient transparency.</p>

**Exhibit 3-1 (cont.)
The Armenian Power Sector
Pre- and Post restructuring**

Criteria	Prior to Restructuring	Current Status
Corporate Organization	Sector consisted of Armenergo, the vertically-integrated state monopoly.	<p>Closed joint stock companies have been established. The fact that the Board of Trustees of these firms will include equal representation from the Ministries of Privatization, Finance/Economy, and Energy is a positive step.</p> <p>Armenergo's direct involvement in sector operations has diminished relative to the level of involvement prior to restructuring. However, the Ministry of Energy still maintains excessive control, but the groundwork has been laid for this to change through the corporatization and privatization process.</p>
Generation	Generation was housed within Armenergo.	<p>Hrazdan Thermal, Yerevan Thermal, and Vanadzor Thermal Power stations, the Sevan-Hrazdan Cascade and the Voratan Cascade, and the Metzamor Nuclear Power Plant are closed joint stock companies.</p> <p>Several small hydroelectric facilities have been privatized.</p>
Transmission/Dispatch	Complete operational and financial control of sector exercised by Armenergo.	<p>Armenergo is responsible for transmission and dispatch, regulated by the ERC.</p> <p>Energy Law requires functional separation of transmission and dispatch by mid 2000.</p>
Distribution	Distribution was carried out by Armenergo.	Reorganized into 11 corporatized regional distribution networks.

3.3 FINANCIAL REHABILITATION AND PRIVATIZATION

Financial rehabilitation and privatization of the sector rank among the government's top policy goals. Restructuring has had positive effects with respect to both areas. In terms of financial rehabilitation, restructuring has resulted in an increased rate of collections (although collections still need to improve), the emergence of cost-based tariffs and new pricing structures, increased

scrutiny by the ERC of sector financial flows, and a stronger commercial orientation throughout the sector.

In the area of power sector privatization, restructuring activities have helped facilitate privatization through the development and definition of the sector's legal and regulatory framework. The passage of the Energy Law and creation of the ERC reduce the amount of uncertainty and risk investors face. To the extent restructuring activities reduce uncertainty, investment will be encouraged. Further, restructuring activities have resulted in greater transparency in sector decisionmaking and have provided more information about sector operations and investment needs.

Exhibit 3-2 lists, in summary form, the major restructuring activities completed to date and describes their impacts on the financial condition of the sector and the sector's investment climate.

Exhibit 3-2
Effects of Restructuring To Date

Restructuring Activity	Effects on Financial Rehabilitation	Effects on Investment Climate
Energy Legislation	Established ERC and principles for tariff-setting and improved collections.	Provides legal framework for development of independent power.
Energy Regulatory Commission	Cost-based tariffs result in improved price signals. Regulatory reporting seeks to improve financial settlements.	Regulatory licensing specifies investor's rights and process for dispute resolution. Encourages investment by protecting investor interests.
Armenergo Unbundling	Increases transparency of financial flows.	Increases investment opportunities within the sector.
Distribution Consolidation	Improves financial viability of distribution companies. Facilitates benchmark competition.	Increases private sector interest in investment in distribution. (Further consolidation would likely result in increased investor interest.)
Corporatization	Improves management accountability for financial performance.	Limits government's involvement in sector operations.

The final chapter identifies areas in need of further restructuring and proposes recommendations on how to bring about necessary changes.

CHAPTER 4 RECOMMENDATIONS

4.1 RESTRUCTURING PRIORITIES

While it is clear from this report that important restructuring tasks have been accomplished or are underway, several fundamental issues have not received sufficient attention. Failure to act on these matters will limit the potential for financial rehabilitation and private investment into the sector, issues identified as top priorities for both the Government of Armenia and USAID. The most urgent outstanding restructuring tasks, listed in order of importance, are highlighted below:¹

- ▶ **Financial Settlements.** Improvement in the transparency of the financial settlements process is the most important restructuring task yet to be seriously addressed. The establishment of a transparent financial settlements process is essential to the rehabilitation and development of the sector. Failure to establish and enforce such a process will result in the continued insolvency of generation companies, opposition to Armenergo carrying out the dispatch function, a potential marginalization of the ERC, and a lack of investor confidence in the sector. It is imperative that the Inter-Ministerial Financial Settlements Working Group convene and begin discussions on settlement options. (The creation of an Inter-Ministerial Working Group on Financial Settlements is required by the 1997 Memorandum of Understanding between USAID and the Government of Armenia.)

- ▶ **Regulation.** The creation and subsequent development of the ERC is arguably the most successful aspect of power sector restructuring to date. Regulation plays a central role in or has direct implications for virtually all aspects of sector restructuring, underscoring the need for continued progress on the many regulatory issues yet to be addressed. These issues include a permanent source of funding for the ERC through use of license fees, greater opportunities for public involvement in the regulatory process, enhanced development of regulatory reporting such as power flows and collections/cash flow reports, and issuance of rulemakings with respect to wholesale market structure and regulation of Armenergo and its dispatch function.

¹ Increasing retail collections remains essential to the financial rehabilitation of the sector. It is assumed, however, that privatization of the distribution sector, rather than sector restructuring, is a more effective approach to dealing with this issue.

- ▶ **Wholesale Market Structure.** The wholesale market structure needs to be better defined in order to attract investment and help facilitate power sector privatization. Completion of sector unbundling and passage of the Energy Law were important steps to lay the groundwork for the wholesale market, but little progress has been made since with respect to market design and operation. In the near term a “single buyer” approach in which all generators sell under contract to the transmission/dispatch utility is the most likely option. The Energy Law, however, allows for generators to contract directly with customers and distribution networks and mechanisms to facilitate these transactions within a single buyer market model need to be discussed and developed. Over the longer term, as the sector’s financial crisis diminishes and opportunities for cross-border wheeling arrangements emerge, the market structure should be revisited in order to assess the appropriateness of more competitive structures such as those that incorporate supply bidding and allow for the use of financial instruments to mitigate price risk.

- ▶ **Separation of Transmission and Dispatch.** Armenergo currently carries out both power transmission and dispatch functions. The Energy Law requires that the transmission and dispatch functions be separated by June, 2000. In November, 1997, Hagler Bailly prepared a report, *Armenergo Management and Organizational Review*, critiquing Armenergo’s overall management and organization capabilities. This work touched on transmission and dispatch and acknowledged the need for additional study of structural options. It is recommended that additional analysis be carried out to assess how Armenergo should be reorganized and to develop a timetable for its reorganization.

- ▶ **Commercialization.** Initial commercialization efforts are underway but financial and operational independence of many joint stock corporations from the Ministry of Energy is lacking. There is evidence that the Ministry remains directly involved in the managerial and operation decisionmaking within sector corporations. This practice is not in compliance with the Energy and Joint Stock Company laws and must be discouraged. It is quite possible that the only way to address this continuing problem is through aggressive privatization.

- ▶ **Distribution Consolidation.** Further consolidation of the distribution sector, from 11 independent networks to as few as three or four, is suggested in order to realize efficiencies of scale and to create companies of sufficient size to warrant investor interest.

- ▶ **Corporatization.** A flurry of activity was carried out in the last weeks of December, 1997 in order to meet the deadline that all energy sector enterprises be converted into closed joint stock companies by the beginning of 1998.

Armenergo, along with each independent generator and distribution network, adopted this new corporate organization. As closed joint stock companies, each company adopted a corporate charter, by-laws, and is in the process of appointing a board of trustees. Given the speed at which this conversion took place, it is likely that the concept of corporatization is not fully understood by the management and directors of each corporation, much less by their employees. Continued technical assistance on corporatization and corporate governance is highly recommended for power sector management.

4.2 CLOSING

The Government of Armenia has made significant progress in restructuring the electric power sector. The primary goal of sector restructuring sought to address the sector's financial crisis by creating a legal, regulatory and economic framework conducive to investment. The concepts presented in Resolution 551, the Government's most recent activity related to restructuring, are timely and appropriate. The challenge, of course, will be whether the government follows through on the ideas presented in the Resolution.

This status assessment attempted to make the case for additional reform efforts in order to maximize the effect of restructuring steps taken to date and to facilitate subsequent progress. Adoption of the restructuring recommendations presented above will advance the overall goal of financial rehabilitation. Likewise, failure to aggressively implement these recommendations will continue to jeopardize the sector's financial viability.

ATTACHMENT A
MEMORANDUM ON GOVERNMENT OF ARMENIA RESOLUTION 551

MEMORANDUM

TO: R. Archer, G. Weynand, W. Smith, USAID
FROM: John Rabaglia and Brian Kick
CC: D. Keith, D. White, M. Ellis
DATE: January 8, 1998
SUBJECT: Government of Armenia Resolution 551

On December 2, 1997 the Government of Armenia put forth Resolution 551, which outlines plans for the financial rehabilitation, financial controls and subsequent privatization of the Armenian energy sector. This memorandum summarizes key aspects of the resolution and discusses strengths and shortcomings of specific concepts presented.

Energy Sector Privatization

The resolution indicates that energy sector privatization is a high priority of the government and that the government views privatization as a way to attract private capital to the sector. The language in the introductory section to privatization - "the methodologies of sale include the significant role of the strategic investor of privatization through international tender in order to maximally optimize the prospective of investment" - endorses the concept of strategic investors and is consistent with the project team's recommendations¹ in terms of the goals and methods of privatization. While the government's endorsement of strategic investors is a positive development, the resolution does not provide much detail with respect to how privatization will be carried out in practice, underscoring the importance of and continued need to work closely with the Inter-Ministerial Privatization Working Group called for by USAID in the 1997 Memorandum of Understanding related to natural gas delivery.

The resolution calls for privatization of the 11 distribution networks of the electric power sector through international tender beginning in 1998, followed by the sale of the thermal and hydro generation plants. In each case, 51 percent of the shares are offered to a strategic investor. The scope of the privatization program involves the sale of all energy sector companies by the year 2000, except for the Metzamor Nuclear Power Plant, Armenergo, the national transmission and dispatch utility, and the Institute of Energy, each of which the government plans to hold.

¹ "Development of a Privatization Strategy for the Armenian Power Sector." Hagler Bailly, August, 1997.

Financial Rehabilitation of the Energy Sector

With regard to financial rehabilitation, the resolution is important for several reasons. First, it provides a candid assessment of the energy sector's financial problems and the reasons for them and calls for several measures to create an environment of financial discipline and transparency within the sector.

Second, it outlines several concepts aimed at improving the financial condition of the sector, including the need to establish financial principles to rehabilitate the sector, the importance of accounting mechanisms, the reduction of power losses, regulation of cash flow, tax treatment of bad debts associated with the sale of power, efforts to improve cash collections, loan and debt restructuring, and tariff policy.

Third, the resolution identifies several potential sources to help improve the sector's financial condition, including the use of cost-based tariffs, improvement in the collection of accounts receivable, various forms of debt and tax relief, and restructuring. In addition, other potential sources of funds such as the proceeds from energy sector privatization and tax forgiveness of sector companies are mentioned throughout the resolution. It is important not to overlook privatization proceeds as a potentially significant source.

Fourth, with respect to collections, the resolution states that the average level of collections (without so called "overplanned losses") will hopefully be 86% in 1998 and 93% in 1999 and that starting in the year 2000, full payments for electric power will be ascertained. It is unclear how these percentages were derived or what incentives and penalties will be implemented to help meet these targets.

Despite its many positive aspects, the resolution is not without its shortcomings, the most notable of which is the confusion regarding references to a "Financial Sustainability Rehabilitation Program" for the energy sector. It is unclear which entity (or entities) is responsible for implementing the Program and which entity is responsible for ensuring compliance with the financial disciplines and transparency measures established by the resolution. Also, much more detailed information is required to assess what effect the Program might have on a particular energy entity.

Overall, the Program is fairly comprehensive (despite areas identified that require further detail) and has the potential to establish an environment in which significant improvement can be achieved in the financial viability of the energy sector. The resolution demonstrates that the government is well aware of the problems facing the energy sector and that it has identified a generally sound approach to addressing these problems. The real test, of course, will be whether the government follows through on the ideas presented in the resolution.

A point by point review of the resolution and a discussion of areas requiring further clarification is attached, along with a copy of the resolution and its attachments.

Point by Point Review - Financial Rehabilitation Section

Page 3, number 3c): The resolution requires that an "equal number of authorized representatives" from designated ministries serve on the Board of Trustees of a newly corporatized energy-sector company. This is an important development in terms of limiting the power of the Ministry of Energy in the management and oversight of energy companies. Prior to this requirement, control over sector enterprises was in large part the exclusive domain of the Ministry of Energy. Allowing the Ministry of Finance and Economy and the Ministry of Privatization to have a voice in the governance of energy-sector corporations is a positive initial step. In order to accelerate the commercialization of these corporations, the government should require that a minimum number of Board seats be reserved for "external" Trustees, that is Trustees drawn from outside Government, the ministries or the entity itself.² Further, this requirement should be reviewed in light of the new Privatization Law in order to clarify the minimum share ownership required to obtain a blocking minority.

Page 6, number 8b): Within the context of establishing norms, the reference to "commercial losses" is unclear given that commercial losses typically refer to unbilled or otherwise unaccounted for power. The only appropriate norm pertaining to commercial losses is to eliminate these losses.

Page 8, Principles Section, b): Tariff **principles**, rather than actual tariffs, are specified in the RoA Energy Law.

Page 8, Principles Section, f), last bullet: This statement is vague. It is unclear what "commodities, material assets, and available funds" are being discussed. Also, tax relief and proceeds received upon the privatization of energy entities (which should be specifically dedicated to the purpose of financial rehabilitation of the sector by this resolution) should be considered as a potential resource.

Page 11, last sentence: This statement is important in the sense that it sets the precedent to earmark monies raised through energy sector privatization, in this case the creation of the joint venture Armrosgazind from Haygazard, to fund energy sector rehabilitation.

Page 12, Regulation Section: This section seems fine in principle, but it doesn't specify how any of the concepts presented will be implemented (e.g., who is responsible for developing the procedures for the reservation of bad accounts receivable). Also, the reference to the "reserve fund" needs to be defined.

² The government should also consider capping the total number of Board members to a manageable size, such as seven or nine members.

Page 14, first paragraph: Armimpex Bank is entitled to "complete control over the cash flows within the energy sector." Is the bank responsible for the "regulation" of cash flows as defined in this section? Also, the issue of bank set-off (against loans to energy entities) needs to be clearly resolved. In general, the broad involvement of the banking sector in the collection process is a positive development.

Page 15, Tariff Policy Section: Tariff setting falls under the exclusive domain of the Energy Regulatory Commission (ERC), as established in the Energy Law. Care must be taken to ensure that the tariff policy articulated in the resolution does not infringe upon the ERC's mandate or independence with respect to tariffs.

Page 16, Structure Section: This section sets deadlines for the licensing of power sector companies. Again, care must be taken to ensure the independence and autonomy of the ERC with respect to licensing.

Areas Requiring Further Clarification

Note: page 2 skips from number one to number three.

Page 2, number 3a): This statement introduces an element of confusion with respect to tax treatment of bad debt. Specifically, it is not clear whether power sector enterprises are obliged to pay VAT tax on bad debt owed to them by customers. Also, this section refers to "stock-taking/inventory" of bad debts but does not identify how the list was compiled or which enterprises are included. This may be a reference to the work performed in Q1 1997 by Intellect state enterprise.

Page 3, number 3b), second bullet: What assets are referred to in this bullet and what is the so called "charter fund."

Page 3, number 3b), third bullet: This section does not identify potential long-term creditors.

Page 3, number 3d): What are "state share bonds" and which energy sector enterprises hold them?

Page 3, number 3d), second bullet: What are the responsibilities of the ministries referenced in terms of settlement of account flows for fuel and financial resources within the energy sector and what will be the role of the ERC in this process?

Page 3, number 3d), third bullet: Will these audits be in compliance with International Accounting Standards?

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Page 3, number 4: To what does the term "interested/incentive" ministries refer?

Page 4, number 6a): No definition is provided for the terms "target funding" and "budget credit."

Page 4, numbers 6c) and 6f): What is the meaning of the word "fairs"? In general, these sections seem to grant some form of financial forgiveness or relief to energy entities.

Page 4, number 6d): There is a need for clarification of the term "overplanned losses." Does this refer to physical or financial losses?

Page 5, number 7 a) & b): It is unclear how these sections relate to the overall financial rehabilitation plan for the sector. The tax treatment described in this section appears to be consistent with the tax treatment described in section 3a) and in turn this section and 3a) both appear to be inconsistent with section 6b) on page 4.

Page 6, number 9: Should the word "rehabilitation" actually be "revaluation"?

Page 6, number 10, first bullet: What are "interlinked" shipments?

Page 8, Principles Section: Who is responsible for implementing the Financial Sustainability Rehabilitation Program (FSRP)?

Page 8, Principles Section, a): The references to accounts payable and accounts receivable are vague. The accounts of which entities are being discussed here?

Page 8, Principles Section, d): How do these mechanisms relate to the mechanisms proposed in number 8 a) & b) on pages 5 & 6?

Page 9, item f): Tax relief and the dedication of proceeds received from the privatization of energy entities should be included in this list.

Page 9, Evaluation Section, first paragraph: Is this the same inventory referred to on page 2, number 3a)? Also, the last sentence refers to an appendix which was not attached to the resolution.

Page 11, second bullet: With whom have "Multi-lateral agreements" have been signed? (Iran, Turkmenistan and Russia?)

Page 11, third bullet: This bullet mentions a \$7 million low-interest loan but fails to identify the parties to the loan.

Page 12. Regulation of Tax-Related Consequences Section: What are "circulating assets" and what is the "reserve fund"?

Page 12. Collections Section: How were these collections percentages derived and what is the rationale for settling for 60% and 70% payment to generators in Q4, 1997 and Q1, 1998, respectively? In general, collections should be referenced to power actually delivered (whether billed or not).

Page 13, a) & b): Loans provided by whom? Also, will Armrosgazind assume these loans as successor to Haygazard?

Page 14, first paragraph: What entity establishes the rules governing the bank's dispersement of funds? What does the statement that Armimpex Bank will have "complete control over the cash flows within the energy system" mean in practice? To what extent will the bank be able to act on its own discretion with respect to management of energy sector cash flows? To what extent will its actions be dictated by rules governing sector cash flow management?

Pages 14 & 15, bullets: What entity will be responsible for enforcing the regulation of cash flows?

Point by Point Review - Privatization Section

Page 18, List of Enterprises: All future references to the list of energy sector enterprises scheduled for privatization should reflect the fact that all of these enterprises have been converted to CJSCs.

Page 20, General Provisions, third paragraph: This sentence is misleading. Electricity shortages in neighboring countries have the *potential* to increase the value of Armenian energy sector enterprises. However, increased value is not a given as the sentence implies. As written, it is a highly suspect assumption that investors' due diligence would quickly show to be a gross overstatement.

Page 21, third paragraph: This sentence is misleading. As written, it implies that privatization in and of itself will improve collections. Privatization has the potential to improve collections only to the extent that government allows private owners to disconnect customers in the case of nonpayment. This is also true with respect to reduction of losses. Private owners will need to have more reliable and detailed meter data on power delivered to their networks in order to significantly reduce losses.

Page 21, fifth paragraph: This section discusses the sequence of power sector privatization, which appears to begin with the distribution networks and be followed by the sale of power plants. It says that distribution privatization should result in improvement in collections to at least a rate of 90-95%, after which "power plant privatization will become feasible." Setting the collections rate as a precondition to privatization of the generation subsector provides an easy out not to privatize power plants if collections do not reach the threshold level. There is need for additional clarification of whether minimum collections targets will be required as a precondition to privatization of generation stations.

Page 21, Privatization Modes Section: Although the resolution allows private investors 51% ownership of enterprises, this level of ownership may be insufficient to "control" the Board of Trustees and effectively deal with minority shareholder initiatives. The Corporate Charter and Bylaws of the enterprise under consideration will elaborate on the issues pertaining to the rights of minority shareholders and veto power. Undoubtedly, a potential investor will need to review the charter and bylaws, as well as review the new Privatization Law.

Page 21, Privatization Modes Section: The use of international tenders as the principal mode of privatization for distribution networks appears appropriate assuming the tender process requires a minimum set of qualifications from potential bidders. This requirement will help improve the likelihood of attracting qualified strategic investors and will help to facilitate objective evaluation of the bidders.

Page 22, Arrangements Section, fifth paragraph: The statement "prior to privatization, the financial viability of the sector entities should be rehabilitated and their complete solvency should be recovered" is problematic because it may be in conflict with the goal of power sector privatization and may be at odds with the spirit of risk and rewards associated with private investment. It is in conflict with the goal of power sector privatization in so far as privatization itself may be viewed as a means to improve the financial condition of the sector; any requirement that precludes insolvent enterprises from being privatized by definition counteracts the goal of privatization. Further, private investors should be allowed to incur the risk of acquiring an insolvent enterprise. The investor should have the opportunity to bear the financial risk and be entitled to the financial reward (or lack thereof) of the investment decision. A more appropriate policy would require that the economic, legal, regulatory, and technical factors associated with the sector be organized in a way to ensure the solvency of the sector as a whole, giving assurance to private investors that they have the ability and an equal opportunity to succeed within the prevailing business, economic and legal environment within the sector.

Areas Requiring Further Clarification

Page 16, Structure Section: What is meant by "regulatory utility"? Does this refer to dispatch?

Page 22, first sentence: To what does the "vacant portion" of the privatization cost of enterprises refer?

Page 22, Arrangements Section, fourth paragraph: What is the need for "normative procedures" and are these procedures the same as the procedures described on page 6, section 8b? If not, how do these procedures differ and who is responsible for developing and implementing them?

Page 22, Arrangements Section, final paragraph: What is the relevance of the amendments to the Energy Law to energy sector privatization?

Page 23, number 1): This sentence quantifies the debt of Armtutrade owed to Turkmenistan at \$34 million and transfers this debt to the Ministry of Finance and Economy (MoFE). In order to determine the net effect of residual debt owed by Armenergo and Haygazard (or its successor) after debt transfer to the MoFE, it would be helpful to specify outstanding debt of all enterprises listed on this page. Also, the resolution does not discuss how the transfer of "control" of energy sector cash flows to the banking sector will affect debt transfer.

Page 23, number 2): Are debts owed by Armenergo and Haygazard to Armtutrade now owed to the MoFE?

Page 23, number 3): Does this allow the MoFE to offset the debts of the named entities to Armenergo and Haygazard against the debts of Armenergo and Haygazard to the MoFE?

MINISTRY OF ENERGY OF THE REPUBLIC OF ARMENIA

No. 07.04.3694
09/12/1997

TO THE DIRECTORS OF ALL STATE OWNED ENTERPRISES
OF THE ENERGY SECTOR OF THE REPUBLIC OF ARMENIA

The Government Resolution No. 551, dated 02.12.97, "On the Activities Aimed at the
Rehabilitation of the Financial Sustainability of the RoA Energy Sector" is attached,
as an information and a guidance.

A. Pogosian,
Head of the Principal Department of Finance and Economy

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RATIFIED

**BY MR. L. TER-PETROSIAN
THE PRESIDENT OF THE REPUBLIC OF ARMENIA**

DECEMBER 2, 1997
Seal of the Cabinet of the RoA President

ROA GOVERNMENT RESOLUTION

NO. 551
dated December 2, 1997
City of Yerevan

**On Activities Aimed at the Rehabilitation of the Financial Sustainability
of the RoA Energy Sector**

In order to ensure the safe operation, the development, the incubation of the privatization process and the financial sustainability of the RoA Energy Sector, as well as to ensure the implementation of the RoA Energy Law requirements and to continue the process of reformation of the energy sector, the Government of Armenia resolves:

1. To approve the complex of activities (attached) aimed at the rehabilitation of the financial sustainability of the RoA Energy Sector;

3. To determine that:
 - a) The cost-price of the commodity production relevant to the bad debts for electricity, thermal power and natural gas supplied to the Armenian enterprises, industries, residential and other consumers by the RoA power system entities, and identified in the result of stock-taking/inventory, as of December 1, 1997, should be discharged/written off on account of entity losses (in compliance to which the value added tax calculated on the benefit of suppliers should be legalized as a loss), and proportional to that, the corresponding accounts payable should be

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extracted/written off, excluding the representation of applications in the size of debts extracted by the creditor entities subordinate to the RoA Ministry of Energy.

b) The resources that may help to resolve the financial crisis in the RoA power sector (restructuring of the accounts payable and receivable of the RoA power system entities did not help) specified in this Resolution are as follows:

- the price of gas which has been provided to Armenia as a humanitarian aid by the U.S. government in 1997 and utilized for the needs of the RoA power system at the cost of gas enclosed in the tariffs for electricity;
 - assets to be accumulated during the formation of the charter fund of the *ARMROSGASIND* joint-stock company;
 - long-term credits; and
 - tariffs for electricity, thermal power and natural gas;
- c) It is mandatory that an equal number of authorized representatives from the RoA Ministry of Energy, RoA Ministry of Finance and Economy, and RoA Ministry of Privatization be selected in the Board of Trustees of the state-owned joint stock companies of the RoA Energy Sector;
- d) Beginning from January 1, 1998, the RoA power system entities holding state share bonds should submit the following reporting:
- one copy of their quarterly and annual accounting reports to the RoA Ministry of Finance and Economy and another copy of the same to the RoA Ministry of Energy;
 - monthly reports to the RoA Ministry of Finance and Economy and RoA Ministry of Energy, RoA State Statistics, and the State Register and Analyses Department, in order to ensure the clear settlement of account flows for the energy fuels, financial resources, debtors and creditors in the format and order as confirmed by the above entities;
 - annual reports of the RoA Energy sector entities for 1998 and the following years, which are subject to audits prior to their publication or presentation to the addressee.
4. To the RoA Ministry of Finance and Economy, in cooperation with the interested/incentive ministries, and in conformance with the Agreement signed on 19 March, 1996, between the Governments of Turkmenistan and Armenia, also, based on the fact of formulating the \$34.023 million debt of the *ARMTURTRADE* state-owned enterprise of the RoA Energy Sector towards Turkmenistan as an

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... the current debts to the RoA Energy Sector enterprises accumulated by the *NAIRIT* Joint Stock Company of the RoA Ministry of Industry and Trade; the *HAYJERMUGKOYOUGI* state-owned enterprise of the RoA Ministry of Civil Construction; the Yerevan *JERMUGKOYOUGI* state-owned enterprise; and the *HAYJERTENT* state-owned enterprise of special significance of the RoA Ministry of Agriculture (procedures are attached).

5. The RoA Government Resolution No. 243, dated August 8, 1996, "On Allocation of Budget Loans to Some of the RoA Enterprises" should be recognized invalid.
6. Instructions to the RoA Ministry of Finance and Economy, and to the RoA Ministry of Energy:

a) the credit loans, received from the Russian Federation for the purposes of re-operation and safety improvement operations at the Armenian Nuclear Power Plant (ANPP) during 1994-1997, should be formulated as target funding from the RoA state budget for the ANPP Joint Stock Company;

Within a one-month period the credit loans received from the Russian Federation for the procurement of nuclear fuel, on provisions specified by the interstate contracts for the ANPP JSC, should be formulated as budget credit, excluding those parts of the loans where the cost of the purchased fuel is not included in the tariffs. The cost of the nuclear fuel not included in tariffs should be formulated as target funding for the ANPP JSC from the RoA state budget.

b) the debts, accumulated against the electrical and thermal-power, natural gas, energy fuels for heating purposes consumed by the budget entities funded from the RoA state budget, should be repaid as tax arrears of the RoA power system entities towards the RoA state budget, as of December 1, 1997.

c) in compliance with Item 7(a) of the present resolution, the RoA power system entities should be exempt of paying penalties and fairs against the unpaid budget credits (loans) calculated as of December 1, 1997.

d) the expenses of the overplanned losses reflected in the balances of the *ARMENERGO* state owned enterprise of the RoA Ministry of Energy and *HAYGAZARD* state concern and emerged during the transformation of the electricity and gas, and calculated in accordance with the established procedures as of December 1, 1997, should be formulated as losses of the *ARMENERGO* state owned enterprise and *HAYGAZARD* state concern.

e) submit a proposal on exemption from the unpaid penalties and fairs calculated against the outstanding debts of the RoA power system entities as of December 1, 1997, to the Board of Trustees of the RoA Pension and Employment Fund and the RoA Social Security Fund.

- f) in compliance with Article 9 of the RoA Energy Law, and by January 1, 1998, submit to the RoA Government a draft decision on confirming the list of consumers (with all relevant details) of electricity, thermal power and natural gas supplied to them on the RoA Government guarantees.
- g) by 1 January, 1998, present a program to the Government of Armenia on the organization of the cash payments for electricity, thermal power and natural gas from the population through the banks of Armenia. Make an offer to the Central Bank of Armenia to participate in the development of the above program.
7. Instructions to the RoA Ministry of Finance and Economy and to the RoA Ministry of Energy, in cooperation with the Tax Inspectorate/Administration of the Republic of Armenia, by 15 December, 1997, submit to the Government of Armenia (according to the established procedures) proposals on the following:
- a) exemption from the calculated and unpaid fairs of taxes towards the RoA power system entities as of December 1 1997, identifying that penalties and fairs, calculated as of December 1, 1997 against the debts of the budget entities funded from the RoA state budget and entities having consumed energy carriers based on the RoA Government guarantees, should not be captured.
- b) exemption of the citizens (tax inspectors) enjoying the privilege of discount payments for electricity until July 1, 1997, of paying income, profit, and value added taxes (excluding the taxes calculated and captured as of December 1, 1997), identifying that the funds which have not been reimbursed from the RoA state budget and have been included in the commodity production as of October 1, 1997, be not reflected in that index.
- c) procedures for the reservation of bad receivable accounts for importers, transporters and vendors of natural gas; and for generators, transmitters and vendors of electricity and thermal power;
- d) procedures for the formulation of the value added tax in case of utilizing the debtor debts of the reserve funds while calculating the "realization profit" figure according to the registration method.
8. To the RoA Ministry of Energy:
- a) by January 1, 1998, in cooperation with the interested/incentive ministries and in conformance with the RoA Energy Law, present to the RoA Government the following drafts:

- Rules of Electricity Usage;
- Rules of Thermal Power Usage; and
- Rules of Natural Gas Usage.

a project of gasification and rehabilitation of gas supply in Armenia, together with the RoA governors and Yerevan city mayor and in coordination with the RoA Energy Regulatory Commission:

- b) by 15 February, 1998, present to the Government of Armenia the project of reducing the energy losses:

the revised norms of the technical and commercial losses of the energy carriers as well as expenses of the energy carriers utilized for the internal needs of the electric power plants, developed by qualified organizations, in coordination with the RoA Energy Regulatory Commission.

9. To the RoA Ministry of Energy and RoA Ministry of Privatization: in coordination with the RoA Ministry of Finance and Economy and the RoA Energy Regulatory Commission, present the draft decision on the rehabilitation procedures of the fixed assets of the RoA Energy Sector, by December 25, 1997.
10. To the RoA Ministry of Finance and Economy: together with the RoA Ministry of Power and RoA Ministry of Industry and Trade, and by January 1, 1998, present to the RoA Government the following:
- a proposal on determining the economic effectiveness of the inter-state interlinked shipments during 1994-95;
 - revision of the reciprocal settlements between *ARMCONTRACT* state owned entity of the RoA Ministry of Industry and Trade and *ARMTURTRADE* state owned entity of the RoA Ministry of Energy;
 - regulation of the financial relations, as of December 1, 1997, between *ARMCONTRACT* state owned entity of the RoA Ministry of Industry and Trade and *ANPP JSC*; between *REGUL* state entity of special significance of the RoA Ministry of Industry and Trade and *ANPP JSC*; as well as between other creditors and debtors of the RoA power sector entities.
11. To the RoA Ministry of Agriculture, RoA Ministry of Civil Construction and Yerevan City Mayor (each by its relevant share): by December 15, 1997, present to the RoA Government projects on the financial restoration of the irrigation and drinking water systems, providing the payment of debts emerged against the consumed electricity.

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- 12. To the RoA Ministry of Finance and Economy and RoA Ministry of Energy together with the incentive ministries, review each quarterly period of progress of the present Resolution and report the results to the RoA Government.
- 13. The present Resolution becomes effective beginning December 2, 1997.

R. KOCHARIAN
 Prime Minister of the Republic of Armenia

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PROGRAM

ON THE COMPLEX OF ACTIVITIES AIMED AT THE REHABILITATION OF THE FINANCIAL SUSTAINABILITY OF THE ENERGY SECTOR OF THE REPUBLIC OF ARMENIA

The reforms, carried out in the energy sector of the Republic of Armenia, and the reopening of the Armenian Nuclear Power Plant (ANPP) have recovered the permanent electric power supply to the solvent customers in the Republic of Armenia. A positive progress in the collections of payments for the supplied electricity is also observed. However, the energy crisis of the past years has left its deep scars on the sector. The energy system has turned out to be in an extremely difficult financial situation due to the supplies of electricity and thermal energy to the population, life-supporting facilities and industrial enterprises at unbalanced and cost-inefficient tariffs, due to the increase of prices for energy fuels, extremely high energy losses, and inadequate accounting of electric power (there was nearly none for the residential customers) during the period of 1992 - 1997.

PRINCIPLES OF THE FINANCIAL SUSTAINABILITY REHABILITATION PROGRAM (FSRP)

- a) immediate payment of accounts payable, at the cost of the sales funds and real accounts receivable;
- b) provision of cost recovery for the supply of electric power, thermal energy and natural gas in accordance with the tariffs specified in the RoA Energy Law;
- c) restructuring of debts for the supplies of electric power, thermal energy and natural gas (including supplies to the residential customers), and writing bad debts off;
- d) development of mechanisms for resolving issues concerning bad accounts receivable and associated tax arrears and penalties;
- e) implementation of comprehensive measures to minimize new bad debts;
- f) extinguishing the financial gaps in the power sector at the cost of appropriate resources, such as:
 - humanitarian aid;
 - state budget of the Republic of Armenia;
 - long-term loans;

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- extension (restructuring) of the grace period of the accounts payable;
 - tariffs;
 - collection of reliable accounts receivable; and
 - export of commodities, material assets and available funds;
- g) provision of clear and distinct accounts for each consumer, provision of transparency and supervision for account flows; and
- h) separation of the functions of the state policy development, economic activities; and regulatory activities.

EVALUATION OF THE FINANCIAL CRISIS IN THE POWER SECTOR

According to the World Bank second credit program of structural reforms, within the framework of the financial recovery program of the energy system, in accordance with the agreement concluded with the former Ministry of Economy of the Republic of Armenia with the World Bank approval, and based on the inventory and revision of debtor and creditor debts carried out by the *INTELLECT* state owned enterprise of the Ministry of Energy of the Republic of Armenia, as of April 1, 1997, the existence of a financial gap in the energy system was officially confirmed (See the Appendix).

The accounting and evaluation of the financial crisis in the energy sector enterprises were carried out both for creditor and debtor debts, and payment proceeds and expenses of the energy system as a whole, as well as for each individual economic entity.

In addition, "hidden" gaps in the form of accelerated wear and tear of fixed assets have also been discovered, due to the excessive exploitation and absence of financial means in the energy system during the period of 1992-1997.

REASONS FOR THE FINANCIAL CRISIS WITHIN THE POWER SECTOR

- a) Since 1992 the Republic of Armenia has paid hard currency for imported energy fuels, materials and equipment necessary for the operation of the energy system. The exchange rate of the hard currency and the Armenian Dram devaluation have not practically been repaid by the corresponding tariff for electric power;

- b) the obligatory sale of electricity for unbalanced (1-14 Drams) tariffs during the period of 1992-1996;
- c) the debts of the major consumers of energy fuels in various industries (such as *NAIRIT JSC*, the drinking and irrigation water systems, district heating, budgetary organizations, and industrial enterprises) and other entities;
- d) the losses which occurred due to discount payments for electricity by citizens enjoying social security privileges;
- e) the debts against energy fuels, accumulated by enterprises supplying thermal energy for district heating in the city of Yerevan and other residential areas of the Republic of Armenia;
- f) the short term loans and their high interest rates, as well as the delinquent loan interests accumulated in various commercial banks, these loans being aimed at the payment of natural gas imported into the Republic of Armenia in order to provide extremely intensive, but basically safe operation of the energy system;
- g) the debts of liquidated enterprises and organizations that had practically no legal successors, as well as the debts of the insolvent enterprises;
- h) the undependable financial relationships with the debtors and creditors of the power sector enterprises of the Republic of Armenia;
- i) the non-appearance of funds for meters and other devices intended for the improvement of the metering, in the tariffs;
- j) the increase of technical losses caused by insufficient loading of the energy system, imperfect operation regimes and non-uniform consumption; and
- k) the commercial losses caused by the inadequate accounting in the subsectors of electricity, thermal energy and natural gas.

RESTRUCTURING OF THE ACCOUNTS PAYABLE

The operations designed to repay the accounts payable will be accompanied by necessary restructuring (extension) of accounts receivable. Thus,

- as of April 1, 1997, the \$25,445,600 debt for natural gas imported into the Republic of Armenia during 1996, in the form of commodity coverage has been restructured into a currency debt of \$17,048,600, of which the outstanding debt of \$10,943,000, as of September 1, 1997, has been restructured and about \$ 4.0 million debt repayment has been extended until January and February, 1998; and
- multilateral agreements have been signed to start paying for the natural gas imported into the Republic of Armenia during 1997 and to be imported until the end of the year. On one hand, these agreements will allow to avoid debts to the *ITERA Corporation* (*HAYGAZARD* State Concern - *ITERA Corporation* - Turkmenistan - Iran - \$ 20. million; *HAYGAS* State Concern - *ITERA Corporation* - Turkmenistan - \$ 30 million), and on the other hand, will allow to order a substantial volume of commodities to the industrial enterprises, paying partially by countervailing the industries' debts for electric power, natural gas and steam consumed by them, and extending the repayment of the remaining part until July-August of 1998 and further.

Since there have been no precedents of such agreements, some objective problems may arise. Taking that into account, certain steps have been taken towards the extension of the contracts with the Iranian and Turkmenian parties:

- the \$ 7 million low-interest loan, with a grace period of 3 years, has been acquired, at the RoA Government guarantees. The \$ 7 million delinquent debts and interests of the power sector enterprises as of September 1, 1997, have been extinguished.
- the 6.7 billion Dram debt of the *ANPP JSC* to the Russian suppliers of nuclear fuel will be repaid in 13 years, with an average annual proportion.

The implementation of the above steps will only partly mitigate the current financial deficiency in the power sector. So, additional financial injections would be necessary to solve the financial crisis and to maintain the circulating assets of the enterprises.

In the first place, the cost of gas provided by the US Government as a humanitarian aid to Armenia, should be formulated as a non-refundable financing to the RoA Energy Sector enterprises, at the price of gas included in the electricity tariffs.

The assets that will emerge in the process of formation of the *ARMROSGASIND* joint stock company's charter fund can also serve as a form of financial injection.

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**REGULATION OF THE TAX-RELATED CONSEQUENCES OF THE ABOVE
MEASURES**

In order to preserve the circulating assets of the energy system enterprises, it is necessary to resolve the problems of implementation of comprehensive measures for covering the existing financial crisis of the economic entities in the chain *Distributor - ARMENERGO state owned enterprise - Generator - HAYGASARD State Concern - ARMTURTRADE state owned enterprise*, as well as address the tax-related issues that may arise in the process of reformulating (yielding) the debts. It is also essential to develop corresponding procedures for reservation of bad accounts receivable and, in case of utilizing the reserve fund, for the formulation of the value-added tax (associated with the specific features of the *supply-sale* problem), for the importers, transporters, generators and distributors of natural gas; and for generators, transmitters and distributors of electricity and thermal power.

**ESSENTIAL MEASURES MAXIMIZING THE COLLECTIONS FOR
ELECTRICITY, THERMAL POWER AND NATURAL GAS SUPPLIES,
AND MINIMIZING THE LOSSES**

It is planned that the percentage of distribution will reach 75 % in the fourth quarter of 1997, and 80 % in the second quarter of 1998. Our goal is to increase the payments to the generating entities (calculated average for all the enterprises) up to 60 % in the fourth quarter of 1997, and up to 70 % in the second quarter of 1998.

Since about 75 % of natural gas imported into the Republic of Armenia is being used to produce energy, the improvement of the situation with payments to the generators will allow *HAYGASARD State Concern* to increase the collections in average up to 70% in the fourth quarter of 1997 at the least, and up to 75 % in the second quarter of 1998. Commodity payments for electric power consumed during the period of 1997-1998 will be limited to 25 %, and for natural gas to 30 %.

By modernizing the accounting system for electricity with means of the loans to be provided by the World Bank and the Japanese Government for reconstruction of electric power networks, and by enforcement of the RoA Energy Law and adoption of corresponding sub-legislative acts, as well as other complex activities related to the distribution, metering and collections, the average level of collections (without

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overplanned losses) will hopefully be 86 % in 1998, and 93% in 1999. Starting the year 2000 full payments for the supplied electric power will be ascertained.

In order to provide a legal framework corresponding to the requirements of the RoA Energy Law, the final editing of the *Electricity Usage Rules, Thermal Power Usage Rules, and Natural Gas Usage Rules* by the RoA Ministry Energy, and forwarding them for the Government approval has become imperative.

The modernization of the electricity metering will be carried out on a step-by-step basis during 1998-2000. The cost of this project is estimated by international experts to be about \$130 million. The project will be funded mainly by loans from the World Bank and the Japanese Government.

RESTRUCTURING OF LOANS OBTAINED BY THE ENERGY SECTOR ENTITIES

Taking account of the step-wise nature of resolving the financial crisis, it is necessary to highlight the following proceedings while obtaining and repaying the loans:

- a) to negotiate on the extension of the grace period (22 November 1997) of the \$5 million loan provided on 22 November 1996 to *HAYGAZARD* State Concern, until 1999;
- b) to negotiate on the extension of the grace periods (1999) of the \$ 4.5 million and \$5 million loans, provided in 1996 to *HAYGAZARD* State Concern and *ARMENERGO* state owned enterprise, respectively, until 2001;
- c) to avoid borrowing high-interest loans from commercial banks, where the interest rates exceed the interest for loans reflected in tariffs;
- d) to borrow loans mainly for profitable activities and investments (for example, production of gas meters, restoration of gas supply to residential areas, etc.) in case of availability of substantiated business-plans.

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REGULATION OF CASH FLOW

The functions of electricity generation, transmission and distribution, and natural gas import, transport and distribution have been separated, and are carried out by corresponding economic entities - state enterprises; economic and legal relations between these state enterprises are regulated by agreements based on the laws of the Republic of Armenia "On Energy System" and "On Enterprises and Entrepreneurship", as well as other regulations. The procurement and sales of the above are carried out on the basis of mutual offsets of quantity and sums. In order to service the loans and to mitigate the factor of risk associated with obtaining loans from foreign banks through the *Armimpex Bank* on the RoA Government guarantees, and in accordance with the agreement signed between the Ministry of Energy of the Republic of Armenia (with an authorization from the enterprises) and the *Armimpex Bank*, the accounts of *ARMENERGO* State Enterprise, *HAYGAZARD* State Concern, *ARMITRANS GAS* State Enterprise, *HAYGAS* State Enterprise and *Marz Electric Networks* state owned enterprises are transferred to the corresponding branches of the *Armimpex Bank*. The accounts of the power sector enterprises are serviced by other banks of the country (*Ardshinbank*, *Agrabank*, *Hayecancombank*) based on agreements signed under the supervision of *Armimpex Bank*, which will entitle complete control over the cash flows within the energy system.

At present, when the "psychological" habit of not paying seems to be eliminated with our population and the accounting process for supplied electric power becomes more and more controllable, along with the technical modernization of the banking system in the country, it is expedient that payments for electric power, thermal energy and natural gas be collected through the country's banks on a competitive basis, in accordance with a procedure specified and supervised by the *Central Bank* of the Republic of Armenia.

Regulation of cash flow includes:

- forecast and control of cash flows;
- cashing of the payments from residential customers for electricity through the banks of the Republic of Armenia;
- target-oriented use of proceeds from electric power sale and provision of minimum operation expenses for the energy system;
- implementation of activities speeding up the circulation of circulating assets;

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- directing of financial means towards payments for imported natural gas as a highest priority, in order to prevent occurrence of new foreign debts;
- regulation of internal and external debts of the energy sector enterprises;
- restructuring of old debts and implementation of activities preventing occurrence of new debts; and
- mutual offset of the energy sector's accounts payable and receivable.

In order to improve the control and regulation of cash flows and to carry out tariff calculations, financial reporting and financial analyses, using the USAID funds and the second World Bank loan designated for structural reforms in the energy sector, it is necessary:

- to develop a financial model of the energy sector enterprises;
- to install an accounting software and to develop mechanisms for complete accounting and internal control within enterprises;
- to plan the installation of a computer software corresponding to the internationally accepted accounting standards, in order to carry out tariff calculations and drafting and analysis of transparent financial reports; and
- to provide training sessions for accountants.

THE TARIFF POLICY

Within two years of the adoption of the RoA Energy Law, the RoA Energy Regulatory Commission will set the tariffs for electricity, thermal power and natural gas in such a way as to provide safe and efficient operation and maintenance for the system, compliant with the international standards, and to ensure the reimbursement and profitability of the depreciation allocations of the re-evaluated balance cost of the fixed assets, renovations, capital investments, and loan service costs. The tariffs should also include the corresponding costs associated with the extension of the debts (debt and loan service) specified by the financial rehabilitation program.

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THE STRUCTURE OF THE ENERGY SYSTEM

The restructuring of the energy system enterprises should be over by 1 January, 1998. By that time all the enterprises should be registered as joint stock companies with 100% government participation. The system will comprise six generating utilities, one national transmitting and regulatory utility, and 11 distributing utilities. The operations of the *YEREVAN ELECTRIC NETWORK* state-owned enterprise will be licensed in the scope of the new legal regulation before 1 April, 1998, and the rest of the power enterprises will be licensed by 1 October, 1998.

PRIVATIZATION OF THE ENERGY SYSTEM

The Government of Armenia shall develop and adopt a privatization strategy for the power sector enterprises by 1 December, 1997. The Government shall determine the enterprises that are going to be privatized, as well as the means of privatization, the share of property that will remain with the state, the methodologies of sales and the privatization schedule. The methodologies of sale shall include the significant role of the strategic investor of privatization through international tender in order to maximally optimize the prospective of investment, the exchange of expertise and technologies. Given the objective of attracting private capital at the most beneficial terms, the Government of Armenia shall attempt to sign contracts with international financial consulting agencies to represent the interests of the RoA Government throughout the implementation of the privatization strategy. The privatization of the power sector enterprises will commence in 1998, and will hopefully end by 2000.

The extinction of the financial crisis will make the power system more attractive and will increase its value.

In the meantime, the privatization of the energy system enterprises will greatly advance the counterbalanced solution of the current financial problems within the power sector, and will promote investments.

The list of the RoA Energy Sector enterprises waiting to be privatized during 1997-1998 is attached.

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**THE OBJECTIVES OF THE FINANCIAL SUSTAINABILITY
REHABILITATION PROGRAM**

The coverage of financial indebtedness with the means of a complex of activities (excluding the possibility of a drastic increase in the tariffs for energy fuels) will not only benefit the financial rehabilitation process of the power sector enterprises, but will also create favorable circumstances for the development of those sectors in economy where the cost of energy fuels within the cost of production is prevailing. Also, it will ensure the functioning of the RoA Energy Sector in accordance with the principle of cost rehabilitation, starting the fourth quarter of 1999.

**MONITORING OF THE FINANCIAL SUSTAINABILITY
REHABILITATION PROGRAM**

The implementation of the Financial Sustainability Rehabilitation Program shall be a point of convergence for the RoA Ministry of Energy, and the RoA Ministry of Finance and Economy. It will be supervised by the Government of Armenia.

The RoA Ministry of Energy, and the RoA Ministry of Finance and Economy shall provide the Government of Armenia with periodic reports on the implementation of the Program. Reports will also go to the World Bank, in order to ensure the necessary perspective on various possible deviations, as well as to proceed with additional maneuvers, if necessary, to find adequate solutions to the problems of rehabilitation of the financial sustainability of the power sector, as agreed with the World Bank.

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THE LIST OF THE STATE OWNED ENTERPRISES
OF THE ROA ENERGY SECTOR
FORWARDED FOR PRIVATIZATION DURING 1997-1998

1997

1. *HAYENERGANOROGUM*, state owned enterprise;
2. *HAYENERGAHATUKNOROGUM*, state owned enterprise;
3. *HAYENERGASHINARD*, state owned enterprise;
4. *ENERGABETON*, state owned enterprise;
5. *SHINVERANOROGUM*, state owned enterprise;
6. *MARMARIK*, state owned enterprise;
7. *BNAKKENTSAGHAYIN INTESUTIUN*, daughter enterprise of *ARMENERGO* state owned enterprise;
8. *HAYANIST of Masis*, a subsidiary of *HAYGAZARD* state owned enterprise;
9. *Daughter enterprise of HAYGAZARD, in the production and processing of agricultural goods.*

1998

1. *ARARAT MARZ ELECTRIC NETWORK*, state owned enterprise;
2. *VAYOTS DZOR MARZ ELECTRIC NETWORK*, state owned enterprise;
3. *LORI MARZ ELECTRIC NETWORK*, state owned enterprise;
4. *TAVOUSH MARZ ELECTRIC NETWORK*, state owned enterprise;
5. *KOTALK MARZ ELECTRIC NETWORK*, state owned enterprise;
6. *ARAGATSOIN MARZ ELECTRIC NETWORK*, state owned enterprise;

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- 7. *ARMAVIR MARZ ELECTRIC NETWORK, state owned enterprise;*
- 8. *SHIRAK MARZ ELECTRIC NETWORK, state owned enterprise;*
- 9. *GEGHARKUNIK MARZ ELECTRIC NETWORK, state owned enterprise;*
- 10. *SJUNK MARZ ELECTRIC NETWORK, state owned enterprise;*
- 11. *YEREVAN MARZ ELECTRIC NETWORK, state owned enterprise.*

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Approved by
the RoA Government Resolution No. 551,
dated December 2, 1997

**PRIVATIZATION STRATEGY
FOR THE ENERGY SECTOR OF ARMENIA**

GENERAL PROVISIONS

Due to the fact that the domestic demand for electricity and thermal power has reduced, and there is practically no export of energy to the countries in the close neighborhood (the annual production of electricity now is about 6.2 billion kWh, as opposed to the 13 billion kWh in the 1980s) the capacities of the energy system of Armenia are underloaded.

Besides, a significant part of the fixed assets of the power system is physically and morally depreciated. In order to rehabilitate and develop those assets about two billion dollars would be needed. The domestic sources cannot provide that amount.

However, along with the development of economy in the country, the expansion of the internal electricity market and the shortage of electricity in the neighboring countries will significantly increase the privatization value of the Armenian Energy Sector entities in the near future, which is substantial in conditions of the small state budget of the Republic of Armenia.

Taking the foregoing into account, it is necessary to create all the prerequisites to increase the privatization value of the RoA power sector enterprises, focusing on the efficiency and safety of the system. These goals are possible to reach with the help of a strategic investor.

**ENTERPRISES UNDER PRIVATIZATION.
PRIVATIZATION PERIODS AND SUCCESSION**

All the energy system entities are subject to privatization, except for *ANPP*; *ARMENERGO* state owned enterprise, being the one and only national transmitting entity in the country and the one engaged in the technical regulation of the process; and the *INSTITUTE OF ENERGY* state owned enterprise.

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The privatization process needs to be completed as soon as possible, but no later than the year 2000.

Taking into consideration the fact that the principal reasons for the financial crisis within the power system are the poor collections, the excessive losses in the networks and the inadequate overall metering of electricity, it is reasonable to start with 10 regional (Marz) and one Yerevan distribution state owned enterprises, considering each of them as a complex of assets.

The privatization of the distribution enterprises will drastically improve the situation with poor collections and excessive losses. The process should commence in 1998.

It would also be reasonable to privatize the infrastructure enterprises of the system (including production, design and construction enterprises) in 1998.

Effective 1999, after the privatization of the distribution networks, when the collections go up to at least 90-95%, the relationships between consumers, distributors, *ARMENERGO*, and generators will practically be based on contractual rights and obligations (with distinct financial responsibilities). Privatization will provide mutual legal and actual independence for the ministry (the body executing the policies in the sector), economic entities (enterprises) and the regulatory body (Energy Regulatory Commission), and the privatization of electric power plants will become feasible.

ARMGASPROJECT and *ARMENERGYNETWORKPROJECT* will be privatized within the structure of *HAYGAZARD* state concern and *ARMENERGO* state owned enterprise.

PRIVATIZATION MODES

To the RoA Energy Sector body: carry out a non-refundable privatization operation at the power plants and other enterprises of the energy sector, at 10% of the total cost of those enterprises.

Offer to the strategic investors at least 51% of the total cost of the enterprises subject to privatization.

International tender should be the principal mode of privatization for distribution networks.

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The vacant portion of the privatization cost of enterprises should be sold by the method of open share subscription, at the capital market.

Those shares that are not privatized in an international tender for the second time, should be sold by the method of open share subscription.

Those enterprises that are not privatized in an international tender or by the method of open share subscription should be handed out for authorized management, lease or concession.

PRIVATIZATION ARRANGEMENTS

For the purpose of necessary arrangements for the privatization of the RoA Energy Sector entities reputable and experienced international consulting firms should be selected with support from the World Bank.

A special financial information network should be designed. For that purpose, the annual accounting balances of the sector enterprises should undergo independent audit, and that is mandatory.

A special account should be designed for each consumer, debtor and creditor to ensure the transparency and control over the cash flow.

Scientifically justified normative procedures should be developed for the specific consumption of fuel in the production of electricity, and technical losses of electricity during the phases of electricity utilization by the power plants for own needs, phases of transmission and distribution.

Prior to privatization, the financial viability of the sector entities should be rehabilitated, and their complete solvency should be recovered.

A program of gradual transformation should be developed towards the competitive market module, in the lieu of the generator-of-electricity to a single-Purchaser module.

The National Assembly of Armenia should be presented drafts of the essential amendments to the RoA Energy Law regarding the issue of liberation of the generated, imported and exported quantities of electricity.

PROCEDURES FOR THE REPAYMENT OF DEBTS
TO THE RoA ENERGY SECTOR UTILITIES

for
NAIRIT joint stock company,
HAYJERMUGHKOYUGHY state owned enterprise,
Yerevan **JERMUGHKOYUGHY** state owned enterprise, and
HAYJERTENT state owned enterprise of special significance

1. The RoA Ministry of Finance and Economy shall accept from *ARMTURTADE* the \$34.023 million of debt that *ARMTURTADE* owes to Turkmenistan for the natural gas supplies during the period of 1994-1995.
2. At the same amount, the debts of *ARMENERGO* and *HAYGASARD* to *ARMTURTRADE* shall be considered repaid and transferred to the RoA Ministry of Finance and Economy, as a transferable debt.
3. At the same amount, the debts of *ARMENERGO* and *HAYGASARD* to the Ministry of Finance and Economy shall be considered repaid against the debts of *NAIRIT*, *HAYJERMOUGHKOYUGHY*, Yerevan *JERMUGHKOYUGHY* and *HAYJERTENT* to *ARMENERGO* and *HAYGASARD*, reformulating those funds as the debts of *NAIRIT*, *HAYJERMOUGHKOYUGHY*, Yerevan *JERMUGHKOYUGHY* and *HAYJERTENT* to the RoA Ministry of Finance and Economy.
4. The RoA Ministry of Finance and Economy shall sign debt repayment contracts with *NAIRIT*, *HAYJERMOUGHKOYUGHY*, Yerevan *JERMUGHKOYUGHY* and *HAYJERTENT*, with a grace period of 5 years.

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