



Global Environment Facility

MOHAMED T. EL-ASHRY
CHIEF EXECUTIVE OFFICER
AND CHAIRMAN

July 27, 1998

Dear Council Member:

UNDP as the Implementing Agency for the project entitled, *Romania: Capacity Building for GHG Emission Reduction Through Energy Efficiency Improvement*, has submitted the attached proposed project document for CEO endorsement prior to final approval of the project document in accordance with UNDP procedures.

Over the next four weeks, the Secretariat will be reviewing the project document to ascertain that it is consistent with the proposal included in the work program approved by the Council in October 1996, and with GEF policies and procedures. The Secretariat will also ascertain whether the proposed level of GEF financing is appropriate in light of the project's objectives.

If by August 24, 1998, I have not received requests from at least four Council Members to have the proposed project reviewed at a Council meeting because in the Member's view the project is not consistent with the Instrument or GEF policies and procedures, I will complete the Secretariat's assessment with a view to endorsing the proposed project document.

Sincerely,

Mohamed T. El-Ashry
Chief Executive Officer and
Chairman

Attachment:

Romania: Capacity Building for GHG Emission Reduction Through Energy Efficiency Improvement

(The Annexes to the project are not attached. They are available at the GEF website: www.gefweb.com)

cc: Alternates, Implementing Agencies, STAP



United Nations Development Programme
GLOBAL ENVIRONMENT FACILITY

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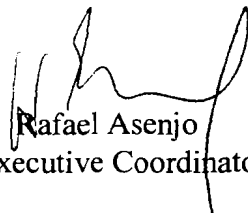
Dear Mr. El-Ashry,

Please find attached copy of the UNDP/GEF Project document entitled:
ROM/98/G31/A/1G/99 – Capacity Building for GHG Emission Reduction Through
Energy Efficiency Improvement in Romania approved by the GEF Executive Council in
October 1996.

As per paragraph 29 and 30 of the GEF Project Cycle, we are submitting this
project to you for circulation to the Executive Council Members for comments and,
subsequently, for your final endorsement.

Thank you in advance for expediting the review and the approval of this project.

Yours sincerely,


Rafael Asenjo
Executive Coordinator

Mr. Mohamed El-Ashry
Chief Executive Officer
Global Environment Facility
Room G-6005
1776 G. Street, N.W.
Washington, D. C. 20433

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**UNITED NATIONS DEVELOPMENT PROGRAM
GLOBAL ENVIRONMENT FACILITY
Project of the Government
ROMANIA**

PROJECT DOCUMENT

Project number : ROM/98/G31/A/1G/99

UNDP and parallel financing

Project title : Capacity Building for GHG Emission
Reduction Through Energy Efficiency
Improvement in Romania

UNDP/GEF:

PA	\$ 274,676
NEX	\$ 1,993,324
Total:	\$ 2,268,000

Duration: 5 years

Project site : Bucharest, Craiova, Ploiesti

Parallel Financing:

Government	\$1,000,000
RENEL	\$ 200,000
Phare	\$ 495,000
FFEM ¹	\$1,000,000
TOTAL :	\$2,695,000

Government Counterpart Agency: Ministry of Industries
and Trade (MIT)

Executing Agency: Romanian Agency for Energy
Conservation (ARCE)

GRAND TOTAL: \$ 4,963,000

Estimated starting date : September, 1998

Classification Information

**Local contribution Craiova
and Ploiesti**

In kind : to be
determined

<i>ACC Sector and subsector :</i>	
Development issues :	GHG reduction , energy efficiency, capacity building
Government sector and sub-sector :	Energy and environment
Primary areas of focus/sub-focus :	Energy saving, investment generation, demonstration
Primary target beneficiaries :	ARCE, local government officials, industrialists, NGOs
Secondary target beneficiaries :	local suppliers of energy saving services and equipment

Brief description :

This project presents an innovative approach to address Romania's lack of investment in the field of energy efficiency in the municipal and industrial sectors. The project components include a (i) Project Management and Mobilisation Team, who will assist investment beneficiaries to obtain financing for their projects; (ii) a demonstration programme to demonstrate the technical and financial feasibility of selected energy efficiency measures and to leverage financial resources from other sources to energy efficiency investments; and (iii) a technical assistance and capacity building programme to improve the local capacity to leverage this financing.

Approved on behalf of :	Signature	Date	Name/Title
Government			Radu BERCEANU Minister of Industries and Trade
UNDP :			Leueen Miller UNDP Resident Representative

¹ The FFEM has not yet defined its commitment to the project but will field a mission to Romania once the PMT is established as per the letter received from UNDP dated 11/6/98.

Table of Contents

A. PROJECT CONTEXT	4
1. Description of sub-sector	4
2. Host Country Strategy	4
3. Prior and On-going Assistance	6
4. The Institutional Framework	7
B. PROJECT SETTING AND JUSTIFICATION	9
1. Problems to be addressed	9
2. Expected End-of-Project Situation	15
3. Target beneficiaries	16
4. Project Strategy and Implementation Arrangements	16
5. Reasons for Assistance from UNDP/Executing Agency	22
6. Counterpart Support Capacity	22
7. Special Considerations	23
8. Co-ordination Arrangements	23
C. DEVELOPMENT OBJECTIVE	23
D. IMMEDIATE OBJECTIVES, OUTPUTS AND ACTIVITIES	24
E. INPUTS	30
F. RISKS	31
G. PRIOR OBLIGATIONS AND PREREQUISITES	32
H. PROJECT REVIEW, REPORTING AND EVALUATION	34
I. LEGAL CONTEXT	35
J. PROJECT BUDGET	35

ABBREVIATIONS

ADEME	French Energy Agency
APER	Association for Energy Policy in Romania
ARCE	Romanian Agency for Energy Conservation
CTA	Chief Technical Adviser
DH	District Heating
DSM	Demand Side Management
EBRD	European Bank for Reconstruction and Development
ECFS	Energy Conservation Financing Scheme
EE	Energy Efficiency
ESCO	Energy Service Company
FFEM	French GEF Fund (Fonds Français pour l'Environnement Mondial)
GHG	Green House Gases
ICEMENERG	Central Energy Research and Modernising Institute
ISPE	Energy Study and Design Institute
MIT	Ministry of Industry and Trade
MoE	Ministry of Waters Forests and Environmental Protection
OER	Orase-Energie Romania (Energy Cities Network)
PC	Personal Computer
PET	Project Evaluation Team(s)
Phare	European Union Phare programme
PMT	Project Mobilisation/Management Team
POF	Private Ownership Fund
PMU	Phare Project Management Unit
RA	Regia Autonoma De Termoficare (State owned district heating companies)
RENEL	Regia Autonoma de Electricitate - Romanian electricity and heat supplier
ROMGAZ	Regia Autonoma a Gazelor Naturale - Romanian gas supplier
SA	Societate Autonoma - state owned limited liability companies
SOF	State Ownership Fund
SRLs	Private limited liability companies
TIDCEM	Training Information and Dissemination Centre for Energy Management
TPES	Total Primary Energy Supply

A. PROJECT CONTEXT

1. Description of sub-sector

Carbon dioxide emissions in Romania amounted to 123 Mt in 1991. Per capita emissions were almost 10 tons in 1989 and fell to 6 tons by 1993 due to the sharp decrease in industrial production. However, GHG emissions in Romania remain high compared to the level of economic activity with 2,120 tons of CO₂ per US\$M of GDP, compared to 665 tons in the European Union and 810 tons in the ASEAN countries. In the same year (1993), total primary energy supply (TPES) was 48 Mtoe, ranking Romania third in terms of energy consumption in Eastern Europe behind Poland and the Czech Republic. TPES peaked in 1989 at 68 Mtoe. Romania's domestic energy production from coal, lignite, oil gas and hydropower satisfied 69% of TPES in 1991.

The Romanian economy is very energy intensive with an energy ratio of 1.7 toe/1,000 US \$ in 1991, compared to 0.38 in OECD countries and 0.5 in ASEAN countries. The high energy intensity results from the combined effect of two factors:

- the structure of the economy with a large energy intensive industrial sector; and
- the inefficient utilisation of energy in all sectors.

The industrial sector in 1991 contributed 47% to the national GDP and accounted for 51 % of the country's final energy consumption (energy sector excluded). Chemicals, iron, steel and machinery together accounted for 50% of this energy usage. The energy sector and the combustion of fuels in industry are the main sources of CO₂ emissions, accounting for 44% and 37% of the total respectively. In 1995, the situation was even worse: total final energy consumption was 31 849 ktoe, of which industry consumed 62 %, whilst industry's contribution to the GDP was only 35 %.

Other sources of CO₂ emission include the extensive District Heating (DH) networks, which provide heat to 40% of the population. In all sectors there are major opportunities for improving energy efficiency, and hence reducing CO₂ emissions.

2. Host Country Strategy

Romania was the first country in Central and Eastern Europe to establish an energy efficiency agency, the Romanian Energy Conservation Agency (ARCE), which was constituted in 1991. ARCE is now part of the Ministry of Industry and Trade (MIT) and has a staff of about eighty people based in Bucharest and 16 regional offices. ARCE is responsible for promoting energy efficiency in all the economic sectors, as well as for approving the installation of new gas consumer equipment.

Prior to 1994, ARCE operated an energy conservation investment support programme using funds allocated to it from the national budget. This programme provided between 10 and 30% of the capital cost of energy conservation investments and invested \$1.6 M in 70 energy efficiency demonstration projects. The results from these projects, however, were not widely disseminated due to the lack of financial resources within ARCE. The programme had primarily a technical focus and lacked a systematic approach to the financial or economic appraisal of the projects.

The GEF project will pay much greater attention to the financial and economic aspects of energy conservation, assessing both the financial gains attributable to energy saved and the reduction of the additional costs associated to environmental damage. Another significant feature of the GEF project is its linkage to the possible financing schemes through contacts made with Romanian banks. Project experts will assist industrial and municipal investors in their discussions with financial institutions, and ensure that the energy investment applications have addressed the full gamut of appraisal issues and funding possibilities.

A new Government scheme has been established (the Special Fund for Developing the Energy System) in which revenues from a power and heat tax can be used to support investments in developing the power system, including energy efficiency. Although this scheme became operational in 1995, revenues from this source have never been used for energy efficiency projects, due to the financial demands of the power rehabilitation programme and the nuclear power programme. As these Government reforms take shape, new financial resources will be freed-up for EE investments. The timing of the GEF project is thus very opportune as it comes at a time where firm government commitment and resolve can be matched by increasing beneficiary awareness and the availability of new public and private sector funds for EE investments.

The Ministry of Finance aims to ensure that end-use energy prices are close to reference market levels at official exchange rates. Consumer subsidies were eliminated in mid-1993 as scheduled under an agreement with the IMF and World Bank. The exception is heating for the residential sector where a subsidy remains. Current energy prices for industrial consumers are US \$71/toe for natural gas, and on average US \$0.054/kWh for electricity, remaining slightly below the average for OECD countries.

The energy law which incorporates provisions for electricity and heat is still in preparation. It includes the establishment of a regulatory body in charge of pricing, of regulating relationships between the private and public power producers and the state, and of the development of programmes such as Demand Side Management. Other relevant laws in the energy sector are the Petroleum Law (already in force) and the Mining Law are being debated in the Parliament. These legislative acts, including the Electricity and Thermal Energy Law, together with other new regulations being prepared on thermal efficiency of buildings, energy efficiency standards and norms, and energy metering, should result in a coherent framework of policies around the energy sector.

3. Prior and On-going Assistance

Bilateral and multilateral donor activities in the field of energy efficiency started in Romania in 1990. The Phare programme of the European Union has established an energy Project Management Unit (PMU) within the MIT. Phare TA 1991 programme funded an energy efficiency strategy, which has made recommendations regarding institutional, regulatory and financing issues as well as a number of energy efficiency projects in the industrial and building sectors. In addition the Phare programme has appointed a High Level Policy Adviser on Energy Efficiency who worked in ARCE to improve ARCE's capacity and to provide advice and assistance. Other relevant energy efficiency projects funded by Phare include:

- “Integrated Energy Services”, a project providing support and assistance to enterprises to implement no- and low-cost energy efficiency measures, and to identify and evaluate high cost measures (undertaken in 1996/7);
- “Energy Saving in Hospitals”, a project to identify energy efficiency measures in four hospitals and to develop an energy efficiency strategy for the health sector (undertaken in 1996/7);
- A project to run training courses on management, financial and technical aspects of energy efficiency (undertaken in 1996); and
- A project to run pilot awareness campaigns in industry, municipalities and among the general public (undertaken in 1996).

In addition, the 1995 Phare budget includes 2.725 MECU for energy efficiency and renewable energy projects, some of which will be available for projects implemented under the GEF project, if required. This amount is in addition to the 0,45 MECU already committed to the GEF project by the EU Phare PMU and described herein.

The World Bank is starting a major programme for the Rehabilitation and Modernisation of the Power Sector. This includes also energy efficiency improvements through the improved fuel utilisation in power plants.

The EBRD has two on-going energy efficiency loans to be mentioned in the context of this project. The first is the Energy Conservation Financing Scheme and SME loan window (ECFS), to increase the competitiveness of Romanian industry. Energy efficiency projects are eligible for support under this credit line, but to date it has been under-subscribed. The second one is the District Heating Rehabilitation Project being implemented in consultation with the Ministry of Public Works. For this latter project the EBRD is financing five sites for final involvement in the retrofit investment project (including Ploiesti).

USAID started work in Romania in 1991 under its emergency energy savings programme, which was applied to several countries in Central & Eastern Europe. Activities undertaken so far include short energy audits, provision of emergency energy saving equipment and training of personnel of

the local consultant companies. Assistance in the form of information exchange, supply of measurement equipment and training is still on-going.

Other bilateral co-operation programmes have been supported, e.g. by the Japanese agency JICA, which has provided assistance in energy efficiency in the main iron and steel complex, SIDEX.

In 1993, an UNDDSMS Adviser produced the study "Energy Efficiency in Romania" providing advice on the areas in which opportunities for energy conservation can be found. As a continuation to this evaluation, a project proposal to the GEF was formulated. After approval of this proposal by the GEF Council, in 1995, the Government of Romania has received Project Advance (PA) funds to support the preparation of the full project document. This final version of the Project Document was prepared in consultation with ARCE, the Ministry of Industries and Trade, the Ministry of Environment, RENEL, ICEMENERG, TIDCEM, the World Bank, the Caisse Française de Développement / Fonds Français pour l'Environnement Mondial, the EU/Phare PMU in Bucharest and several NGOs.

4. The Institutional Framework

The key institutions involved in the project are listed below.

Ministry of Industries and Trade (MIT): This Ministry now includes a specialised Directorate General for Petroleum and Gas, a Mining department, a separate Directorate General for Energy as well as Directorate Generals covering different industrial sectors. The Directorate General for Energy is primarily responsible for electricity and heat supply, including legislation and regulation of these areas. It also has the overall responsibility for energy policy. It exercises state control, within the limits allowed by law, over enterprises in the electricity and heat sectors, in which the majority of capital is state owned. For energy conservation, the Directorate is pursuing and analysing trends of energy consumption and proposing measures to reduce it. As a part of this effort, it has developed together with ARCE a "National Programme for Energy Conservation, for Recovering and Utilising Renewable Energy Resources and for Using Unconventional Energy".

The Romanian Agency for Energy Conservation (ARCE): ARCE was created in April 1991 by Government Decree No. 327. It is a public body within the MIT, without its own administration. ARCE is led by its General Director and a Deputy Director appointed by the MIT. ARCE's headquarters are in the MIT in Bucharest and the sixteen regional offices are located in large towns, each office covering two or three counties. These regional offices are a major asset as they have regular communication with major energy consumers in their area.

Regia Autonoma de Electricitate (RENEL): RENEL is the electricity authority Regies Autonoma (RA) and is still owned by the State but has independence in day to day operation. RENEL is one of the most powerful enterprises in Romania, a major employer, a major contractor and a significant part of the Romanian economy in its own right. At this moment RENEL is a vertically integrated monopoly. The strategy for restructuring RENEL foresees maintaining a natural monopoly for transmission, but creating conditions for competition in

electricity generation and in distribution, including independent generation. The authority is now undergoing a major restructuring that will bring major changes in the organisation of the entire electricity sector (ultimately privatising parts of the power chain).

RENEL differs from most integrated utilities in OECD countries. It is a major producer, transporter and seller of heat for industry and district heating.

RENEL is involved in activities that impact upon overall energy efficiency including installation of street lighting and replacement of transformers with modern equipment. RENEL also has in view several energy efficiency initiatives including low energy street lighting, Demand Side Management and research on new technologies.

Regia Autonoma a Gazelor Naturale (ROMGAZ RA): ROMGAZ is the natural gas authority. ROMGAZ administers Romania's deposits of natural gas, except the deposits of associated gas exploited by petroleum extraction. It develops new deposits extracts and stores natural gas, and operates main pipelines, grids and domestic and commercial installations for natural gas. As a large portion of the gas used in Romania is imported, there are difficulties in securing sufficient supplies; the gas pressure in winter often falls dramatically. In 1996, controls have been placed on the use of gas for industrial enterprises and any new installations are likely to have to use liquid or solid fuels. Increasing efficiency of gas use is a crucial activity and ARCE is working with ROMGAZ to design and develop a gas DSM programme.

Research institutes: There are several research institutes involved in the energy sector. The two most relevant for this project are **ICEMENERG** and **ISPE**. ICEMENERG, (Central Energy Research and Modernising Institute) undertakes work on all aspects of energy use. Current projects relevant to the GEF project include work on rehabilitating the Deva District Heating network, developing motor speed controllers, developing energy efficiency standards and labelling for refrigerators, and ultimately for other domestic appliances. ISPE (Energy Study and Design Institute) is also involved in energy efficiency work, particularly in the field of buildings.

The Ministry of Public Works and Territorial Planning (MiPLT): This Ministry has responsibilities in connection with DH schemes operated by municipality owned RATs. MiPLT collects data on energy use and provides technical assistance in energy efficiency in this sector wherever possible. It is co-operating with ARCE on several EC-Phare funded projects in the district heating sector.

The Ministry of Waters, Forests and Environmental Protection (MoE): This Ministry is charged with environmental protection. Romania ratified the Framework Convention on Climate Change in June 1994 (Law No. 24) and the "First National Communication Concerning the National Process of Applying the Provisions of the Framework Convention on Climate Change" was submitted to the Secretariat of the Convention in January, 1995. The Ministry of Waters, Forests and Environmental Protection is integrating the strategy on climate change into the general strategy of environmental protection in Romania. The Government of Romania has implemented several strategic steps to support the Framework Convention. These are:

- adoption of regulations on air pollution emissions for each sector of the economy;
- the establishment of the National Commission for Climate Change;
- the establishment of a greenhouse gas inventory in accordance with methodologies set out by IPCC and adopted by the CoP of UNFCCC, for different sectors of the economy;
- preparation of a national monitoring system for air pollution including GHG emissions;
- identification of the sectors in Romania which are most vulnerable to climate change;
- identification of mitigation options for each sector;
- public information with a view to broadening and strengthening the public acceptance of climate change strategy;
- The National Environmental Research programme will contain aspects dealing with global air pollution and climate change;
- promotion of co-operation with other countries to improve the Convention; and
- negotiations on the development of specific targets for GHG emission reduction.

A number of NGOs are operating within the field of energy efficiency. These include the Ecologist Youth of Romania, who have been consulted during the development of this project. An important NGO is TIDCEM, the Training and Information Dissemination Centre on Energy Management, based at the Polytechnic University in Bucharest. This Centre was established with support from the UNDP and several international utilities.

B. PROJECT SETTING AND JUSTIFICATION

1. Problems to be addressed

In spite of number of initiatives on energy efficiency in Romania, the rate of progress is slow in relation to the size of the task. Delays in implementing large scale energy efficiency investments are a result of many barriers (financial, technical and institutional). These different barriers are outlined in this section (and summarised in *Italics* in the right hand margin).

1.1. Financial Barriers to Energy Efficiency Investments

A major constraint in Romania when implementing energy efficiency investments is the difficulty in obtaining financing. The main reason for this situation is the general economic recession and the costs of transition that have severely limited savings, and thus the supply of credit for all investments. In addition, there are some specific conditions in the domestic credit market that impact the ability to finance energy efficiency investments.

*Difficulty in
obtaining
financing
for energy
efficiency*

While some energy efficiency investments have strong financial indicators and can be viewed as strong « win-win » options, most are more approximately viewed as having mid- to long-term pay back periods with moderate rates of return (similar to most municipal or environmental projects) based on Romanian interest rates.

Financial Status of Municipal and Industrial Sectors

In the municipal sector, the recent legislative changes allow the municipalities to transfer revenues from the central to the local budgets, thereby improving their ability to obtain financing for their projects. The specific acts dealing with this issue are:

- the Law on Local Taxes and Fees which allows municipalities to collect and use fees on property, land, motor vehicles, water, and other basic services (Enacted and should come into effect in 1998)
- the Law on Local Public Finance which will assure that the 35% of the income tax that is collected in the municipality is transferred back to the municipality (approved by Council of Ministers and is expected to be enacted in 1998).
- the decree converting the local Regias (providers of many municipal services such as heat, water, and transport) into commercial entities.

While the year 1998 should still be viewed as a transition year, in which it is unlikely that long-term municipal borrowing will become possible, the next two to three years should provide a much better legal basis for the municipalities to move towards long-term financing of capital projects.

It should be stressed, however, that the municipalities are extremely stretched financially, and their financial, as opposed to legal ability to qualify for loans continues to be restricted. The financial status of the Regias, specifically the ones dealing with district heating, will continue to be a problem, and the growing level of Regias' unpaid accounts payable and receivables could even present serious liquidity problem in 1998 and 1999.

*Municipalities
have
limited
revenue
streams*

The degree to which the industrial sector is economically depressed is well known. The result of the industrial collapse is that most companies are unable to generate internal funds or borrow for investments. Therefore, even projects with high rates of return are not being implemented due to the lack of financing. Existing EE loan schemes (such as the programme devised by the EBRD) are not well subscribed to as these schemes mix objectives for energy saving and for improving production (the latter often taking priority over the former).

*Companies
have limited
investment
capital for EE*

*Existing
EE schemes
don't always
address energy
saving
specifically*

Current Status of the Domestic Financial Market

From the view point of obtaining energy efficiency loans, the domestic capital market has three principal barriers :

- the vast majority of loans are short-term (1 to 3) years;

*Current
loans
are not
well adapted*

- the interest rates are substantially above Western European levels; and
- loans are either balance sheet or asset based.

*to EE
investment*

An estimated 80% of the domestic credit market is in short-term loans (1 to 3 years) and a long-term loan is considered to be 5 years. Thus energy efficiency projects, which often have relatively long pay-back periods, have difficulties in obtaining financing. Romanian interest rates for dollar based loans are about 15%, as compared to an average 6% prime bank rate in the EU.

*Romanian
banks are
not used to
lending for
energy
efficiency*

The current proceedings of the Romanian banks for approving loans present its own constrain. Romanian banks do not provide project based loans, but rather provide loans to the company as a whole, based on the credit worthiness of the company as expressed by its balance sheet, on the value of its assets, or on a combination of both. The result can be that an energy efficiency project can be exceptionally strong financially, but the company does not qualify for the loan. Also, the local banks do not consider the ability of the project to contribute to the overall financial condition of the company, and therefore, for instance, the reduction of energy costs as a result of the project can not be taken into account when considering the company's ability to repay the loan).

As the minimum level of a bank loan is about \$500,000, many energy efficiency projects do not qualify. Furthermore, as bank policy normally allows for loans only to their own customers, potential borrowers are unable to use other banks. Currently banks do not provide loans to municipalities.

1.2 Institutional Barriers

Many of Romania's current problems related to low levels of energy efficiency result from institutional problems. These range from limited specialised human resources at the national and local levels, to communication problems between and within institutions. There is also a lack of experience in developing market-based bankable project proposals dealing with energy efficiency.

National perspective

At the national level, the barriers to be addressed are in two main areas:

- need to strengthen the Agency for Energy Conservation (ARCE) as the focal point to promote and support the development and financing of EE projects in Romania; and
- need to promote the information exchange and co-operation between the governmental and non-governmental institutions, and to co-ordinate the development of the sectoral strategies related to the promotion of energy efficiency and reduction of GHG emissions.

ARCE has a mandate to promote and co-ordinate EE activities in Romania, and to disseminate information and raise public awareness on energy efficiency issues in general. Its effectiveness is, however, limited due to the lack of financial support, and its dependence on the Ministry of Industry and Trade for this support. It has also suffered of losing some of its key technical staff during the last few years. The current staff has very limited experience in working with entities that have implemented concrete energy efficiency investments.

*Lack of
experience of
ARCE staff
in concrete
energy
efficiency
projects*

To overcome this barrier, there is a need to: (i) mobilise additional resources that allows ARCE staff to fulfil its mandate; and (ii) provide technical assistance and capacity building to give ARCE staff « hands-on » experience on the different aspects of promoting energy efficiency such as identification, design, financing, and actual implementation of the projects (including the monitoring and evaluation of the results of the project).

*ARCE's current
resources are
very limited*

Regarding the communication barrier, the links between the governmental and non-governmental organisations working on GHG reduction and energy efficiency are currently very weak. As the experience with concrete energy efficiency projects has been lacking, there have been few opportunities to unite the different institutions working in this sector, and/or to develop new entities that would support this co-operation. In order to make an impact on GHG reductions, the governmental and non-governmental institutions need to work more closely together. This also applies to the need to reinforce links between the various government bodies in order to develop joint actions and strategies for EE and GHG projects. For example, there have been limited opportunities for discussions between the Ministry of Public Works (MiPLT), the Ministry of Waters Forests and Environmental Protection (MoE), the Ministry of Industry and Trade (MIT) and other government bodies implementing the energy strategy (ARCE, RAT, RENEL) to develop common approaches and strategies for GHG reduction through EE.

*Lack of
co-operation on
EE programmes*

The recent interest by a number of donors on GHG emission reduction has created a new awareness among some Romanian institutions. This awareness needs to be promoted and disseminated. It also has the potential of opening up a new market for energy efficiency investments. The GEF project provides a concrete opportunity to demonstrate that beside “win-win” projects carbon can also have a market value that can be leveraged against investment resources.

The implementation of the National Energy Strategy should address some of these institutional barriers, and the GEF-Phare project will also contribute to this by building capacity of the relevant stakeholders and promoting ARCE in a highly visible and prestigious manner.

Local Perspective

A recent approach to the development in Romania has been decentralisation. This can be seen in the municipalities' ability to talk more freely with IFIs, as demonstrated in the recent EBRD Municipal loan for district heating rehabilitation. The future change in the status of the RATs and RENEL will also encourage a more local approach than was previously undertaken. These changes point to some existing barriers that thwart energy efficiency investments. These issues can be divided into three areas :

Lack of local experts working to develop new EE projects

- the need to reinforce local ARCE capabilities regarding EE investment projects;
- the need to develop local government strategies and approaches for energy efficiency investments; and
- the need to develop local non-governmental capacity to generate EE investments and to provide services for this developing market.

Local Public Perspective

Following the experience of the Phare ECOS-Ouverture project for promoting « Energy Cities », a number of municipalities have set-up an « Energy Committee » that is comprised of representatives from the Mayor's office, the Prefecture and local providers of public energy services (ARCE, RENEL, RAT). This committee meets periodically to discuss energy related problems. One of the barriers that exists at this level is the absence of a clear investment strategy for EE. As the municipalities can levy local taxes they are in a position to invest, yet they lack experience in setting these investment priorities and analysing least-cost options as regards EE. The targets, standards and approaches to EE improvements need to be developed through capacity building initiatives and technical assistance.

Lack of model approaches and standards that municipalities can use to develop EE programmes

While the local industries generally have a number of EE investments that are identified, as well as a clear revenue stream to develop credit rating, there is a need to develop such projects in the building sector. Municipal borrowers have difficulty in obtaining loan funds for public buildings (especially in Ploiesti where the EBRD district heating loan has recently been signed and the municipality cannot easily borrow further at this time). These renovations are generally quite small and could be catered for by specialised financing. Alternative funding mechanisms and approaches need to be devised that can use the GEF funds to leverage other financial resources.

Municipal credit rating for EE investments is weak (or non-existent)

Local ARCE Perspective

Local ARCE offices represent a network that could potentially stimulate local

EE investments throughout the country. There is, however, a certain disparity among these local offices and the variety and level of services that they offer. To date, the ARCE offices have acted as agents of the central ARCE office in transmitting the EE message to industries and municipalities. They have had relatively little specific experience in advising potential beneficiaries on what constitutes a bankable EE project. Recent Phare funded training in Timisoara, Constanta, Bucharest and Pitesti has enabled some of the local ARCE staff to increase their awareness of bankable EE project design. A number of Romanian consultants have also been trained in various aspects of project formulation and financial analysis for energy investment projects. Follow-up to this effort is required. There needs to be a direct link drawn between GEF-Phare demonstration projects and the training material that has been developed under Phare support.

Local ARCE staff have limited experience in concrete energy efficiency projects

Local Non-governmental Perspectives

Local non-governmental barriers stem both from supply and demand side problems. On the demand side there is an absence of suitable credits for EE investments. This is particularly true in the housing sector where EE investments are critically lacking. The recent creation of Owner Associations provides a method of catering for EE investments in this potential market. The absence of specialised financing mechanisms tailored to the constraints of this group is the principle barrier that needs to be overcome.

Lack of specialised credit for EE investment in the housing sector

On the supply side, there is a lack of specialised consultant services that can develop viable EE projects and get them implemented. This is true for the industrial, public and private sectors. Demand for EE investments need to be stimulated through capacity building initiatives, by supporting the existing and eventual new organisations that have the ability to undertake EE projects.

Lack of specialised NGOs or expertise working on EE projects

The following table is summarising the specific barriers to be addressed by the project. As it can be noticed on the table and the discussion above, the main barriers limiting EE investment are non-technical.

1.	Access to suitable credits with longer pay-back periods and lower interest rates;
2.	Lack of incentives to finance and invest on energy efficiency measures;
3.	Lacking information and experience of the local banks to finance energy efficiency projects;
4.	Lack of information and experience of the local companies, municipalities (incl. the housing sector) and other beneficiaries to analyse, prioritise and develop bankable energy efficiency projects, and to present them for financing for the different financial organisations;
5.	Lack of information and experience of the local companies, municipalities and other beneficiaries to develop concrete investment strategies, taking into account the opportunities for increased energy efficiency both in the supply and demand side;
6.	Limited capacity of ARCE to disseminate information, and to promote and support the development and implementation of relevant energy efficiency measures;
7.	Lack of specialised energy consultant services (NGOs and private);
8.	Poor co-ordination of the sectoral policies dealing with the energy and environment; and
9.	Poor co-operation between the different governmental and non-governmental organisations to promote the energy efficiency.

2. Expected End-of-Project Situation

The expected end of project situation foresees an increasing interest and ability of the local banks and other financial institutions to finance energy efficiency projects in Romania, and on other hand increased interest and capacity of the local companies, municipalities and other target beneficiaries to develop and present EE projects for financing.

In the light of the barriers listed above, some specific outputs of the project are envisioned as follows:

1. Demonstration of the technical, economic, financial, environmental and social feasibility of energy efficiency investments through a grant-loan financing mechanism, and by leveraging other financial resources in a number of key energy efficiency technologies;
2. At least US\$ 5 million additional EE investments leveraged through the project from other national and international financing sources;
3. Romanian banks become more aware of the investment potential of energy efficiency and gain more experience and increasing interest in financing this type of project.
4. Increase interest and capacity of the Romanian companies, municipalities and other target beneficiaries to analyse, prioritise and develop bankable energy efficiency projects, and to present them for financing for the different financial organisations;

5. Increased capacity of ARCE to promote and support the development and implementation of relevant energy efficiency measures;
6. Strengthened capacity of the local NGOs and private sector to provide energy consultancy services, with a specific emphasis on energy efficiency;
7. Enhanced co-operation between the different ministries on energy related issues, with an objective to minimise the overall “system” costs and environmental impacts of energy production and use; and
8. Enhanced co-operation between the governmental and non-governmental organisations on the energy related issues.

The specific targets for each aspect will be produced in the annual Work Plan, which will be developed by the Chief Technical Adviser in co-operation with the National Project Director.

3. Target beneficiaries

The project will enhance the capacity of a broad range of stakeholders to take stock on and utilise the existing opportunities for increased energy efficiency. By doing so, the project will not only focus on the reduction of greenhouse gas emissions, but contribute also to the general planning and strategy formulation by identifying and promoting “win-win” measures, measures which beside addressing climate change, promote also the national development goals.

At the local level, the target beneficiaries are initially in Ploiesti and Craiova but it is envisaged that the scope of beneficiaries will broaden from the third year of implementation. These beneficiary groups are:

- ARCE (both central and territorial branch staff)
- Romanian banks, industrial enterprises and municipal authorities
- house owners, and the recently established “Owner Associations”
- local consultant firms and NGOs specialising in the provision of energy services
- local firms providing energy efficiency equipment (secondary beneficiary)

The capacity building focus will enable these to contribute to the design, development, financing and implementation of energy efficiency investment projects in the future.

4. Project Strategy and Implementation Arrangements

The high per capita energy usage in Romania is well documented, and this project aims to help to reduce the greenhouse gases emissions via increased energy efficiency. The expectation is that increasing energy prices will create an economic incentive for energy efficiency investment projects, but this incentive cannot be fully exploited due to a number of barriers described earlier. The removal of these barriers is envisioned to be achieved through a number of activities, which can be divided in three themes:

- Building capacity of the project stakeholders to identify, develop, finance (including the mobilisation of it) and implement local strategies, programmes and specific measures to improve the energy efficiency in different sectors;
- Promoting co-operation between the different sectoral ministries, and between the governmental and non-governmental organisations to take energy efficiency considerations increasingly into account in the general strategy formulation, legislation and public sector financing, not only from the environmental but also from the economic and social point of view; and
- Demonstrating the technical, economic, financial, environmental and social feasibility of energy efficiency investments through a grant-loan financing mechanism, and by leveraging other financial resources in a number of key energy efficiency technologies.

Regarding the last point, it should be stressed that the proposed grant-loan financing mechanism can not be seen as a permanent and ultimate mechanism to finance energy efficiency investments in Romania, but rather as an initial step to gain experience on, and to demonstrate the feasibility of selected energy efficiency measures. By doing so, it will reflect the future potential in Romania to reduce the interest rates and to increase the pay-back period of the credits available for energy efficiency investments, based either on the changing local conditions or availability of long term credits from international financing institutions to be used for energy efficiency investments. Also, the increasing international interest on atmospheric CO₂ as a compound with market value should be taken into account in that context. Especially, after the adoption of the Kyoto Protocol in December, 1997 the interest on Joint Implementation, Carbon Trading and other “joint” measures to reduce global greenhouse gas emissions has strongly increased. While the final decisions on these different modalities are still pending, it might present an additional opportunity for the developing countries and countries with economies in transition to attract financing for their investments on energy efficiency and renewable energy sources.

Concerning the capacity building activities, the project will organise a series of thematic awareness raising and information dissemination workshops. Otherwise, the emphasis will be placed on the job training.

The Level of Support and Possible Cost Recovery

In the project brief it was envisaged that early technical demonstration projects should be supported 100% by EC-Phare and Romanian contributions to the project. During the further development of the project, it was decided that the project will pay for a declining investment incentive, and the remainder should come from the beneficiary organisation’s own resources or through borrowing. The exact level of the support for each component will be set by the Project Steering Committee. This places a greater emphasis on locating the projects within the confines of existing financial opportunities, and illustrates that cost recovery is an important element of the overall project. It will also extend the financial and demonstration potential of the project.

Even within the concept of pre-defined Energy Action Areas, suitable investment opportunities should not be excluded purely on geographical grounds. The Project Steering Committee should have the authority to approve an investment outside the Energy Action Area if it is considered suitable.

The PMT's work plan for the technical demonstration components should include sufficient time to identify and work with other sources of investment funding, e.g. with local financial institutions, to facilitate financing also for the replication projects.

Site selection

The original project brief states that the energy efficiency activities listed in the project will be initiated in one municipality, which has been nominated to an Energy Action Area. During the further development of the project, however, two municipalities have been selected (from a short list of five proposed cities) which will serve as the basis for project activities for the first 24 to 36 months. After this period, four other action areas will serve as the focus for activities as the scheme is expanded. The first two Energy Action Areas are Ploiesti (for municipal demonstration projects) and Craiova (for industrial EE demonstration projects). The overall selection process involved nine municipalities.

Technology selection

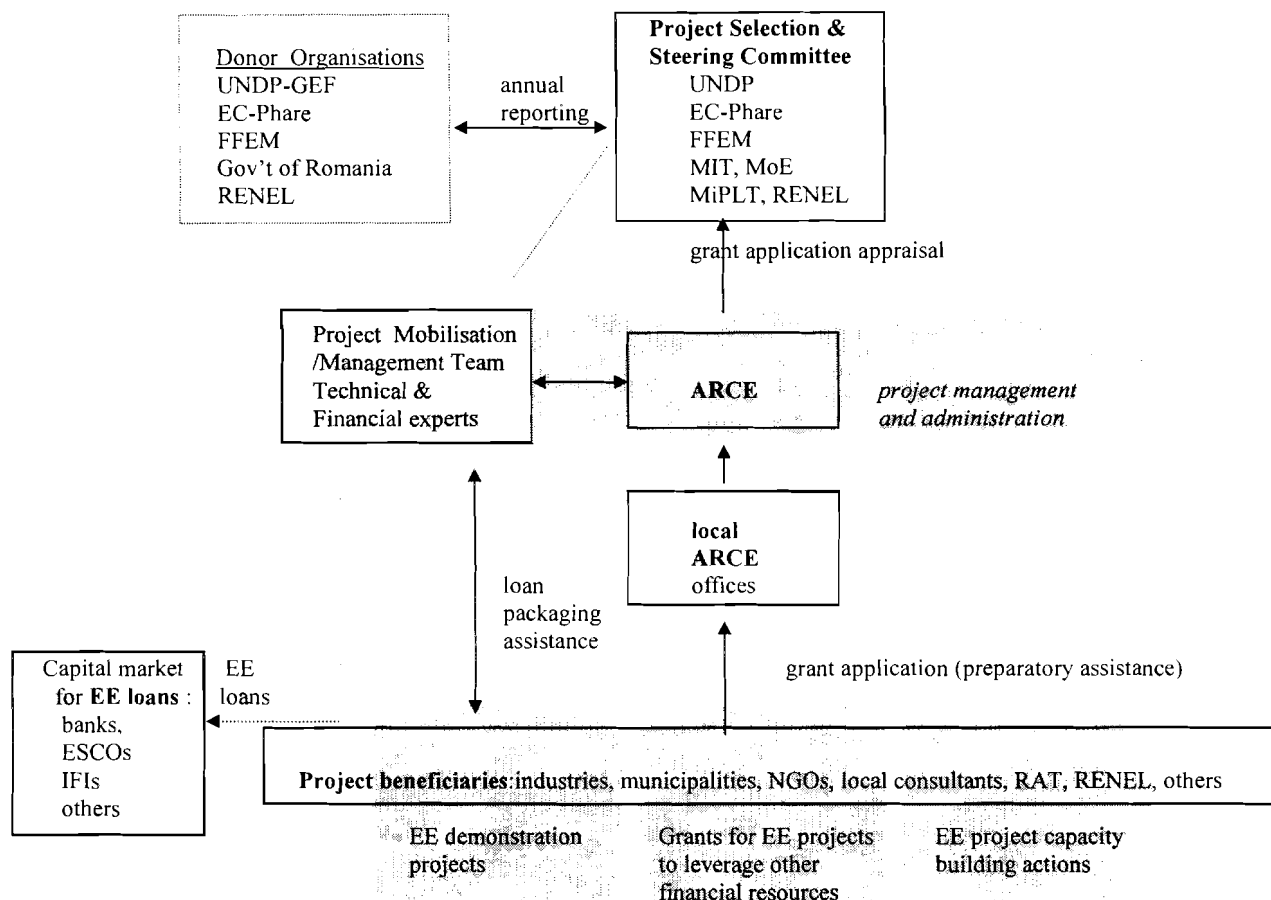
Although the components are clearly defined so as to reflect those technologies that will have the most replication potential and impact on overall GHG emissions, the project management should remain flexible about the types of projects supported. The present project may initiate energy efficiency projects that would have a big potential to reduce energy consumption, but are not included in the existing structure. Flexibility to fund other projects should be maintained.

Links to other sources of financing

Regarding the credit line established by EBRD to finance suitable SME and EE projects (ECFS), it is possible that projects identified through the GEF project activities could be financed partially through the ECFS. The projects identified by EBRD, however, average \$500,000, which is clearly much higher than most of the demonstration projects proposed here. Financing of GEF demonstration loans could be done through the same financial institution as the ECFS to extend their range of services, or through other institutions.

There are several other sources to finance EE investments in Romania, either in existence or being developed. The project management should acquaint itself with all of these sources and use them for different projects as appropriate. It is envisaged that the host enterprises and municipalities will also provide funds for the demonstration projects and that additional funds will be available from the Government of Romania. The objective is to maximise the number of projects flowing into the various financing schemes (e.g. EBRD, local banks, the State Ownership Fund, the ECFS etc.). In that regard, it is also essential to build links with local banks to involve them in energy efficiency financing as much as possible.

The overall scheme and the implementation arrangements of the project are illustrated in the schematic below:



The entity that will be established to undertake the main activities of the project will be the PMT or **Project Mobilisation/Management Team**. This team will be set-up specifically to implement the project tasks, yet it has the mandate to develop its own capacity to become a self autonomous entity by the end of the project, providing services to beneficiaries and to governmental institutions as required.

The focus of the work of the PMT will essentially be two-fold, namely:

Management of the progress of the GEF project components and assistance to ARCE in ensuring that the activities are implemented according to the Project Document.

Mobilisation of EE project investments through assistance provided to local municipal and industrial beneficiaries and institutions. This mobilisation entails helping in the identification of viable EE investment projects, the development of bankable loan dossiers and assistance in obtaining financing and capacity building vis-à-vis the different project beneficiaries.

Staffing of the PMT will include a foreign Chief Technical Advisor (CTA), his Romanian counterpart (from ARCE) and Romanian experts. The CTA's functions have been described in Terms of Reference in the Appendix. The detailed responsibilities and functions of the PMT are presented in Annex IV.

The PMT will work closely with ARCE, which acts as the executing agency for the project on behalf of the Government of Romania. In this role, ARCE will also be the Government counterpart agency to the PMT experts.

Both the PMT and ARCE will report periodically to the Project Steering Committee which will be set-up in Bucharest and made up of the main governmental institutions and the donors that will be active in determining the orientation of this project. The Steering Committee will meet on a monthly basis.

It is proposed that the following organisations will be invited as members to the Project Steering Committee:

- UNDP-GEF (represented through the local UNDP office in Bucharest)
- Ministry of Industries and Trade
- The Ministry of Waters, Forests and Environmental Protection
- The Ministry of Public Works and Territorial Planning
- EC-Phare
- FFEM
- RENEL

The Project Steering Committee will have the following responsibilities:

General Management and decision making responsibilities:

1. Approval of the composition of the Project Mobilisation/Management Team (PMT)
2. Approval of consultants to be contracted to work on the project
3. Approval of the project's Annual Work Plan and its budget
4. Orientation and review of the project's policy
5. Approval of grants for selected demonstration projects

Monitoring, evaluation and reporting responsibilities

1. Project monitoring and periodic evaluation
2. Approval of the GHG and GEF criteria for project selection
3. Reporting back to the individual funding institutions of the project

ARCE national office will be the main counterpart organisation that will interface with the consultants contracted for the project. ARCE's responsibilities include:

Programme execution responsibilities:

1. to act as National Executing Agency to the project on behalf of the Government of Romania;
2. to supply adequate project counterpart staff including the National Project Director;
3. promotion of the project through the local ARCE network; and
4. collaborating with the PMT activities and providing them assistance in their functions.

Monitoring, evaluation and reporting responsibilities:

1. monitoring of the technical aspects of the project;
2. periodic reporting to the Project Steering Committee and UNDP; and
3. dissemination of the project results.

ARCE territorial branch offices in Ploiesti and Craiova will provide local support for project partners and act as local relays for the different project activities. The role of these regional offices vis-à-vis the project will be as follows:

Programme implementation responsibilities:

1. assistance in making contacts with local authorities, industries and institutions;
2. local promotion of the GEF project and the different components of it;
3. assistance in identifying new demonstration projects;
4. assistance to applicants with grant applications; and
5. dissemination of the results of the project (demonstration projects and events).

5. Reasons for Assistance from UNDP/Executing Agency

In line with the commitments of the Government of Romania under the United Nations Framework Convention on Climate Change, and the Kyoto Protocol signed in Kyoto in December, 1997, the Government of Romania has committed to reduce its average yearly greenhouse gas emissions by 8 % from the 1990 level in its first commitment period from 2008 to 2012.

As a country with an economy in transition, the Government of Romania is not able to cover the incremental costs arising from the implementation of a large structured energy efficiency programme, which would contribute to the reduction of greenhouse gas emissions in Romania. UNDP/GEF assistance is needed to remove the existing barriers to the long-term financing of energy efficiency measures in Romania.

6. Counterpart Support Capacity

The Government of Romania will contribute with an amount equivalent to US \$ 1,000,000 in cash to the project. In addition, the national electricity authority, RENEL, will contribute with an equivalent to US \$ 200,000 in cash. Both contributions will be made as parallel financing to the project.

The capacity of the executing agency and the Government counterpart agency to this project has been a matter of concern to the UNDP. The situation will be improved in early 1998 through the Phare assistance project « Strengthening ARCE », which will focus on ARCE's information technology and communication resources, staff skills and experience in project analysis. The capacity building and technical assistance component of the GEF project will continue this effort by providing training and other support activities aimed at improving ARCE's capacity and capabilities to manage large projects, evaluate projects financially and disseminate information in

a structured way. Also, the local UNDP office needs to have a specific emphasis to support ARCE's functions as the executing agency to this projects, with respect to the specific UNDP rules and regulations.

7. Special Considerations

ARCE has sixteen territorial branch offices. These resources need to be optimised and strengthened in order to achieve the sustainability of the project. The territorial branch offices currently make between 800 and 1,000 visits to enterprises each year and thus have very good local contacts and knowledge. Personnel in the territorial branch offices, however, need additional training in recommending modern energy efficient technologies, monitoring and management practices, financing systems, as well as dissemination techniques.

The newly created Energy City network Orase-Energie (OER), will serve as a very important tool for the dissemination of the approach and the results of the project in Romania. More than 40 Romanian municipalities have already agreed to take part in this network. The main objective of this network is to exchange information and experience on energy saving. The municipal energy efficiency orientation of the programme will work closely with OER and its approaches.

Another UNDP financed project, the Training Information & Dissemination Centre, will also play a part in this project. TIDCEM can provide information, dissemination, and training services for the project.

The programme will also work very closely with EBRD and other EC-Phare initiatives currently being implemented and planned as will be explained in the next sections.

8. Co-ordination Arrangements

As described above, a number of on-going energy efficiency initiatives already exist in Romania and therefore it is important to ensure good co-ordination. This has already started to occur as the development of the project has been co-ordinated with the on-going EC-Phare projects and the EBRD Energy Conservation Financing Scheme (ECFS) and District Heating Loan.

Close co-ordination with the EC-Phare programme needs to be continued as Phare is committed to provide funding for municipal capacity building and investment component of the GEF programme. This will be ensured by frequent meetings between the CTA, the EC-Phare Energy PMU, and the High Level Policy Adviser on Energy. In addition to the monthly Project Steering Committee meetings, ad hoc meetings can be called, as required, to ensure co-ordination with other IFIs (such as the World Bank or bilateral donors) on specific topics.

Less formal co-ordination will be achieved through the participation of the CTA in the Energy Forum, a regular meeting of many professionals (Romanian and international) involved in energy projects in Romania. The Association for Energy Policy in Romania (APER) is another good mechanism which will be used to assist in the process of informal co-ordination.

C. DEVELOPMENT OBJECTIVE

The development objective of the project is to increase the energy efficiency in Romania, thereby contributing to the sustainable economic development of the country as well as to the reduction of Romania's greenhouse gas emissions in response to its commitments to the UNFCCC.

The project will remove the existing technological, institutional and financial barriers that limit and prevent sustainable energy efficiency investments from being made in Romania.

D. IMMEDIATE OBJECTIVES, OUTPUTS AND ACTIVITIES

Immediate Objective 1

Finalise the institutional and other necessary arrangements for the implementation of the project.

Output 1.1

A constituted Project Management Team (PMT) and Project Steering Committee (PSC); a finalised work plan and detailed terms of reference for the subcontracts; and compilation of national institutions and experts which will be engaged in the implementation of various activities associated with the project.

Activity 1.1.1

Establishment of the Project Management Team, as described in the Terms of Reference presented in Annexes IV and V.

Activity 1.1.2

Establishment of the Project Steering Committee to supervise and provide guidance on the implementation of the project, and to improve the co-operation between the different sector ministries and NGOs on energy efficiency and GHG issues

Activity 1.1.3

Preparation of a draft work plan for the project's implementation including the terms of reference for the subcontracts (to be prepared by the CTA and national project manager, in consultation with the executing agency and UNDP).

Activity 1.1.4

Identify and develop a plan for the involvement of all the key donor and recipient-side stakeholders including relevant governmental and non-governmental institutions, representatives of different interest groups that will be affected by the project, potential foreign and domestic sources of financial support, equipment manufacturers etc.

Activity 1.1.5

Organisation of a project initiation workshop for all relevant project stakeholders to:

- present the project's objectives and envisioned activities, and their linkage to other ongoing projects, activities and initiatives in Romania;
- clarify the implementation arrangements of the project;
- review the draft work plan and terms of reference for the subcontracts; and
- undertake consultations with potential local and international partners (companies, municipalities, banks and house owner associations) to participate in the implementation of the project

Activity 1.1.6

Finalisation of a detailed work plan of the project, including the first selection of local partners for project implementation

Immediate Objective 2

Build the capacity of ARCE and other relevant stakeholders participating in project implementation to analyse, prioritise, develop and appraise “bankable” energy efficiency projects, and to present them for financing for the different financial organisations;

Output 2.1

Improved information exchange, links and contacts of ARCE and other project stakeholders with international community working with EE investment projects

Activity 2.1.1

Upgrading the communication links of ARCE, including the telephone, fax and Internet services.

Activity 2.1.2

Organise training on the available information resources (printed and electronic) and how to use them efficiently.

Activity 2.1.3.

Undertake a survey of the available international information and training material to support the project activities as well as of the ongoing international activities and institutions to co-operate with.

Activity 2.1.4

Establish a project home page on Internet providing information on the activities and progress of the project, as well as links to relevant international sources of information for project implementation.

Activity 2.1.5

As appropriate, organise study tours and/or business trips, and facilitate the participation of the key local stakeholders to international events and conferences relevant to the project objectives.

Activity 2.1.6

Strengthen and establish direct links with the potential sources of financing of energy efficiency investments in Romania, including regional development banks, private sector financing, equipment manufacturers etc.

Output 2.2

Improved capacity of ARCE and other stakeholders participating in project implementation to analyse, prioritise, develop and appraise “bankable” energy efficiency projects, and to present them for financing for the different financial organisations;

Activity 2.2.1

Development of guidelines and other training material to support and promote the identification and development of energy efficiency investment projects (by using, to the extent possible, the existing information and training material prepared, for instance, under Phare, TACIS, UN ECE Energy Efficiency 2000, SECI Energy Efficiency and other relevant programs).

Activity 2.2.2

Organise a series of sectoral and thematic training/awareness raising events for “recipient side” stakeholders elaborating the use energy management information systems, available measures and technologies to save energy, their economic and financial evaluation, preparation of local energy strategies and investment plans, and possible sources and procedures to finance the projects. A specific emphasis during the training will be placed on “no” or “low-cost” “win-win” measures. The target groups for this training are envisioned to consist of large, medium and small enterprises in different economic branches; municipal and government authorities; house owners, owner associates and maintenance companies; as well as ARCE staff; private companies and NGOs providing consultant services in energy related fields; etc.

Activity 2.2.3

Organise training and/or round table discussions with the local banks and other financing institutions to take stock on the international experiences and modalities to finance energy efficiency investments and the possible ways to finance these investments in Romania.

Activity 2.2.4

Follow up the training events with direct contacts between the ARCE staff and other participating institutions to support the actual identification and evaluation of concrete energy efficiency projects, under overall support from the PMT.

Output 2.3

An action plan and EE investment strategy for municipal authorities of Craiova and Ploiesti (undertaken under the Phare component).

Activity 2.3.1

Analysis of the investment opportunities for municipal EE projects and development of Action Plans and investment strategies (undertaken under the Phare component).

Activity 2.3.2

Specialised awareness raising and information dissemination events targeting municipal decision makers and EE investment options (undertaken under the Phare component).

Activity 2.3.3

Development of an action plan and EE investment strategy for municipal authorities of Craiova and Ploiesti (undertaken under the Phare component).

Output 2.4

Trained private sector companies and NGOs specialised on providing services on improving the energy efficiency of different sectors

Activity 2.4.1

Undertake consultations with the existing NGOs and local consulting companies to evaluate their existing capacity in energy efficiency related fields and how it could be reinforced.

Activity 2.4.2

Specialised capacity building events (workshops, public awareness campaigns and participatory actions) targeting NGOs and potential groups capable of developing EE projects in the future.

Activity 2.4.3

On the job training for selected local consultant companies and NGOs supporting the existing expertise and promoting the development of new capacity in the field of EE project development and implementation.

Immediate Objective 3

Gain experience and demonstrate the feasibility of different energy efficiency measures and financing modalities in order to facilitate the process towards long term financing of energy efficiency investments in Romania on a sustainable and continuing basis.

Output 3.1

A grant financing scheme to leverage loans and other financial resources for energy efficiency projects in Romania, and agreements on co-funding to finance the first demonstration projects.

Activity 3.1.1

Undertake consultations (eventually organise a workshop) with the local banks and other financing sources (including municipalities, the EBRD ECFS scheme, SOF ESCO scheme etc.) to explore their criteria and possibilities to co-finance the proposed energy efficiency investments.

Activity 3.1.2

Review and finalise the guidelines and management structure for the grant financing scheme to provide grants for selected energy efficiency projects, based on the co-financing possibilities of the local stakeholders and considering the demonstration value of the suggested financial arrangements for potential future financing partners (local banks, long term credit lines for energy efficiency investments established by regional development banks, equipment manufacturers, and specific “environmental” funds²).

Activity 3.1.3

Establishment and operationalisation of the grant financing scheme to provide financing for selected demonstration projects and to leverage loans and other financial resources for energy efficiency investments in Romania.

² In determining the guidelines for the grant financing scheme with respect to the availability of follow up financing from the environmental funds such as the GEF, it should be noted that they are not expected to play any major role as a source of capital to improve the energy efficiency of the economy as a whole. Not even in the case, that this financing would be based on the incremental costs approach. What the environmental funds such as GEF, however, can do is to finance activities that facilitate the way and remove the barriers towards large scale, commercial financing of “win-win” energy efficiency measures (which is the approach that also this project tries to follow).

Activity 3.1.4

Finalise the negotiations on co-funding to finance the first demonstration projects.

Output 3.2

Guidelines and an operational system to monitor and evaluate the results of the project

Activity 3.2.1

Develop guidelines and an operational system to monitor and evaluate the results of the project.

Output 3.3

A solid portfolio of energy efficiency demonstration projects under implementation in private municipal and residential sector.

Activity 3.3.1

Selection and detailed design of the demonstration projects based on the criteria described in the Annex VI to this project document.

Activity 3.3.2

Establishment and operationalisation of the demonstration projects.

Immediate Objective 4

Establish a supportive legislative, regulatory and institutional framework and/or financing mechanism to ensure a large scale, sustainable financing of energy efficiency investments in Romania, after the GEF project has ended.

Output 4.1

A comprehensive review, evaluation and dissemination of the results and lessons learnt from the first demonstration projects

Activity 4.1.1

Collection and review of the results and experiences gained during the demonstration projects.

Activity 4.1.2

Dissemination of the results and experiences gained during the project as well as on earlier activities carried out by ARCE and supported by the Government (please see Annex VIII for more detailed information).

Output 4.2

A supportive legal, regulatory and institutional framework and/or financing mechanism to ensure a large scale, sustainable financing of energy efficiency investments in Romania, after the GEF project has ended.

Activity 4.2.1

A comprehensive review of the existing and possible local and international financial sources to finance energy efficiency investments in Romania (an activity requiring continuous follow-up by the PMT throughout the implementation of the project).

Activity 4.2.2

Regular consultations between the PMT and the possible financial sources and other project stakeholders on the possible modalities and arrangements to ensure sustainable, large-scale financing of energy efficiency investments in Romania and on the measures needed to remove the remaining barriers (which might change from the ones identified in the beginning of the project) hampering these investments to take place.

Activity 4.2.3

Regular consultations between the PMT and the relevant government authorities, through the Project Steering Committee and otherwise, on the additional measures needed to establish a supportive legal, regulatory and institutional framework to support energy efficiency investments in Romania.

Activity 4.2.4

Based on the results of the activities 4.1.1 - 4.2.3, formulate a set of recommendations and a strategy to remove the remaining barriers and to ensure large scale financing of energy efficiency investments on a continuing, sustainable basis after the GEF project has ended.

Activity 4.2.5

Undertake actions needed to implement the recommendations and the suggested strategy.

E. INPUTS

The proposed breakdown of project resources (in US \$) is presented in the table below. This has been broken down into the different components of the project. Funding for the different budget lines will be undertaken according to Annual Work Plan prepared by the PMT and accepted by the Project Steering Committee. The tranches of funding (in US\$) would then be drawn down from the different funding sources.

Donor	Project Management	Technical Assistance & Capacity Building Actions	Monitoring/ evaluation and dissemination of information	Capital grants for demonstration projects	Total (US \$)	% of Total
UNDP-GEF	540,000	656,000	300,000	772,000	2,268,000	46%
EC-Phare		93,500		401,500	495,000	10%
FFEM ³				1,000,000	1,000,000	20%
Gov't of Romania				1,000,000	1,000,000	20%
RENEL				200,000	200,000	4%
Total	540,000	749,500	300,000	3,373,500	4,963,000	100%
% of total	11%	15%	6%	68 %	100%	
	basically	TA		capital		

F. RISKS

The project involves several risks that need to be considered during the implementation of the project.

One area of risk is the amount of co-operation and resources that will be provided by the host municipalities. It is important that the municipality and the local industry are fully involved and committed to the project. They will have to devote resources to the project, including time, staff and money. This risk has been addressed carefully in the site selection process which took place in 1996. The change in municipal and national governments, however, creates a level of uncertainty.

In a project of this complexity good quality project management is absolutely essential for success. Beside experience and good knowledge of the technology areas to be demonstrated, the qualifications and experience of the CTA should include managing large, complex energy efficiency projects on a national or regional scale. Also, the consultants for each component should have strong project management skills beside their technical skills and experience relevant to each component. They should be project managers with excellent technical skills and understanding on the substance of the project, rather than just technical consultants responding to the specific technical needs of the project. Methods of applying incentives to encourage the component project managers to seek large scale replication should be developed if possible.

One risk is also that the PMT does not acquire an independent status as targeted after the first 3 years of operation. This risk is being met through the hands-on approach and on-the-job training

³ These resources have not yet been secured from FFEM, but are the basis of previous discussions. The evaluation of this commitment will be undertaken by FFEM in 1998 based on a proposal for funding the additional costs of a large scale municipal demonstration project. The PMT will need to identify this opportunity and assist FFEM in their approval process.

that the CTA should have with the PMT staff. The selection of the PMT staff will need to keep this aspect in mind.

The high personnel turnover in the government is a constant threat that can undermine the efforts of institutional capacity building. In the case of ARCE, this risk is being addressed through TA & CB actions. The development of new services should enable ARCE to develop new staffing options and provide it with new opportunities to retain staff.

The capital market in Romania is rapidly adapting to the multiple changes that have taken place in the past 5 years. One risk, however, is that investors ignore the opportunities in EE investments in favour of other options. This risk needs to be met through government support to EE policies. This includes reducing energy subsidies and openly and actively supporting the EE initiatives, thus sending this message to the financial market (and to beneficiaries). This also means providing the government institutions that promote EE with the full means and support they require to undertake their activities effectively.

G. PRIOR OBLIGATIONS AND PREREQUISITES

Romanian Contribution

The Romanian Government will make a cash contribution equivalent of \$ US 1 million to the project from the Special Fund for Developing the Energy System. The method of disbursement and management of the money will be defined and agreed between the Romanian government and the UNDP at the outset of project activities. The Romanian Government will also support the project “in-kind” as presented below. The two cities, Craiova and Ploiesti, have also agreed to make available to the project “in-kind” contributions financed either by the local government budget or the local enterprises and other project beneficiaries.

It has been agreed by the Ministry of Industry and Trade that the Special Fund for Developing the Energy System will be used to support energy efficiency projects identified by the GEF project. This fund has been established by Ordinance and can be used to support energy efficiency as well as energy supply projects.

The “in-kind” contribution of the Government of Romania will consist of:

- provision of experts from relevant government organisations to participate the project activities;
- provision of office space for the PMT and the other national and international experts working on the project;
- provision of information and data to the project staff and consultants as may be required for the implementation of project activities and the realisation of project objectives;
- designation of full-time ARCE staff to work as counterpart staff to the PMT;

- additional full-time ARCE staff that may be required for the PMT antenna offices in Craiova and Ploiesti;
- provision of premises and services of ARCE (i.e. telephones and photocopies) in both demonstration zones; and
- provision of information gathering services and logistic support to the project staff for the implementation of the project's activities.

Romanian Counterpart Human Resources

This project requires input from ARCE and there is concern within UNDP about ARCE's ability to provide sufficient, qualified counterpart staff. It is an obligation that in prior to initiating the project, ARCE should identify the members of staff that will be assigned for the project activities and clarify the amount of time they should devote to the project.

It is considered that ARCE does not have all the human resources to manage the project, and that a team of local consultants, under the direction of the Chief Technical Adviser, will manage the project from the PMT. The team will need to liaise closely with ARCE at the headquarters and the territorial branch level.

Should the national experts that will be hired by the project work currently under direct employment of the Government of Romania, they will have to obtain a leave of absence without pay for the duration they will work for the project. A document to this effect, signed by an authorised person, has to be attached to the request for payment.

Project Steering Committee

As mentioned in Section 2.4 the project will be overseen by a Project Steering Committee. It is an obligation that the composition of the Steering Committee should be agreed between the UNDP and the Romanian Government prior to initiating the project. A working group consisting of members from the Ministry of Industry and Trade, the Ministry of Public Works, UNDP and Phare, has been established to advance the project prior to the formation of a Steering Committee. The membership of the Steering Committee by the working group should be finalised by the end of August, 1998.

EC-Phare Input as Financing Consultant Services and Other Input of the Donors

Since some components of the project require consultant services paid by EC-Phare, and considering the duration of the Phare project cycle from TA project definition to tendering of consultants (typically 5 months or more), the Terms of Reference for these consultant assignments have been written prior to the project commencing so that they can enter the Phare approval system. One procedure for speeding this process is to fund some of the Phare TA activities through the Phare-Energy Framework Contract procedure, which reduces this process period to one month.

The proposed use of Phare funds to support the project activities has been agreed with Phare during the national workshop held in Bucharest between 11-12 June, 1998. The involvement of the FFEM in the project is still in the process of examination and appraisal, and therefore it needs to be confirmed. The FFEM have expressed a continued interest to participate in the municipal portion of the demonstration programme supplying « additional costs » to a significant innovative demonstration effort. One of the early tasks of the PMT will be to identify such investment opportunities and to finalise the financing arrangements with FFEM. While this is neither a prerequisite, nor a prior obligation, it is important to note, as the French have indicated that the examination of their involvement would be conditional to the signing of the GEF project before the end of 1998.

The Project Document will be signed by the Government of Romania, Executing Agency and UNDP. Assistance for the project will be provided only if the prerequisites stipulated above have been fulfilled or are likely to be fulfilled. When anticipated fulfilment of one or more prerequisites fails to materialise, UNDP may, at its discretion, either suspend or terminate its assistance.

H. PROJECT REVIEW, REPORTING AND EVALUATION

After a detailed work plan has been prepared the Project Steering Committee and UNDP/GEF representatives will undertake an external review on it. The purpose of the review is to identify eventual gaps, overlaps and other risks to successful implementation, as well as to identify potential partners and sources of information from which the project could benefit.

Monitoring of the performance of the demonstration projects over time is a key component of the project. Monitoring equipment is included in the technical assistance and capital budget and represents approximately 5% of the capital costs. The individual monitoring and reporting of the energy performance will be the responsibility of the sponsoring entity and will be a condition of receiving a GEF grant. The entities will report to the ARCE and the PMT who will monitor the results and the overall progress of the demonstration projects.

The Project Steering Committee will be responsible for monitoring and supervising the project implementation as a whole. In order to do this, the CTA, with the help of the leaders of the research teams, will prepare regular reports on the progress of the project as whole and the different sub-tasks under it. The consultants appointed to the project shall report to the CTA on a weekly basis as specified in their Terms of Reference.

The project will be subject to tripartite review (a review by representatives of the Government, the executing agency (ARCE), and UNDP) at least once every 12 months, the first such meeting to be held within the first 12 months of the start of full implementation. The National Project Director and/or senior project officer of the UNDP shall prepare and submit to each tripartite review meeting a Project Performance Evaluation Report (PPER). Additional PPERs may be requested, if necessary, during the project. The PPER and tripartite review reports will be sent to the other international donors (FFEM and Phare).

A Project Terminal Report will be prepared for consideration at the terminal tripartite review meeting. It shall be prepared in draft sufficiently in advance to allow review and technical clearance by the executing agency at least four months prior to the terminal tripartite review.

The Government will provide UNDP with certified periodic financial statements relating to the status of UNDP/GEF funds, including an annual audit of these financial statements, according to the procedures set out in Section 30503 of the UNDP Policies and Procedures Manual (PPM) and Section 10404 of the UNDP Finance Manual, and any revision these Manuals. The audit will be conducted by the legally recognised auditor of the Government, or by a commercial auditor engaged by the Government.

I. LEGAL CONTEXT

This project document shall be the instrument referred to as such in article I of the Standard Basic Agreement between the Government of Romania and the United Nations Development Programme, signed by the parties on 23 January, 1991. The host country implementing agency shall, for the purposes of the Standard Basic Assistance Agreement, refer to the government co-operating agency described in that Agreement.

The following types of revisions may be made to this project document with the signature of the UNDP resident representative only, provided that he or she is assured that the other signatories of the project document have no objections to the proposed changes:

- a. Revisions in, or addition of, any of the annexes of the project document (with the exception of the Standard Legal Text for non-SBAA countries which may not be altered and the agreement to which is a pre-condition for UNDP assistance);
- b. Revisions which do not involve significant changes in the immediate objectives, outputs or activities of a project, but are caused by rearrangement of inputs agreed to or by cost increases due to inflation; and
- c. Mandatory annual revisions which re-phase the delivery of agreed project inputs or increased expert or other costs due to inflation or take into account agency expenditure flexibility.

Table of Annexes

Annex I Summarised Work Plan (first 12 months).....	2
Annex II Schedule of Project Reviews, Reporting and Evaluation	3
Annex III Equipment Requirements.....	4
Annex IV Terms of Reference - Project Management / Mobilisation Team (PMT).....	7
Annex V Terms of Reference - Chief Technical Adviser and Other Technical Support.....	13
Annex VI Provisions for Providing Grants for Energy Efficiency Demonstration Projects.....	13
Annex VII Description of the Technology Areas for Demonstration Projects.....	17
Annex VIII Notes on General Information Dissemination.....	24
Annex IX Incremental Cost Matrix.....	26
Annex X Financial and Accounting Arrangements (A Model Annex to the Project Document for Government Executed Projects.....	29
Annex XI Response to the Comments of the GEF Council Members.....	38

J. PROJECT BUDGET (UNDP/GEF Component)

Budget line	Description	TOTAL		1998	1999	2000	2001	2002	2003
		m/m	US \$	US \$	US \$	US \$	US \$	US \$	US \$
10.	Personnel								
11	International experts and consultants								
11.01	Chief Technical Adviser (CTA) ⁴	22	330,000	45,000	150,000	90,000	45,000		
11.51	Short Term International Consultants ⁴	10	170,000	34,000	68,000	17,000	17,000	17,000	17,000
13	Administrative Support Personnel								
13.01	PMT Local Support Staff	60	12,000	600	2,400	2,400	2,400	2,400	1,800
15	Duty travel								
15.01	International travel		35,000	5,000	10,000	5,000	5,000	5,000	5,000
15.02	Local travel		18,000	2,000	4,000	3,000	3,000	3,000	3,000
16	Mission Costs								
16.01	Mission Costs		25,000		5,000	5,000	5,000	5,000	5,000
17	National Experts and Consultants								
17.51	Short term technical and financial consultants ⁴	170	204,000	24,000	48,000	42,000	36,000	30,000	24,000
17.52	Translators/Interpreters	36	18,000	2,000	4,000	3,000	3,000	3,000	3,000
19	Component Total		812,000	112,600	291,400	167,400	116,400	65,400	58,800
30	Training								
32	Group training / study tours								
32.01	Local training and awareness raising workshops		60,000	10,000	10,000	10,000	10,000	10,000	10,000
32.02	Study tours and participation in international meetings and seminars		30,000		20,000	10,000			
39	Component Total		90,000	10,000	30,000	20,000	10,000	10,000	10,000
40	Equipment								
41	Expendable Equipment								
41.01	Office equipment		5,000	3,000	2,000				
42	Non-expendable equipment								
42.01	Office and communication equipment		21,000	21,000					
42.02	Mobile monitoring facility equipment		92,000		92,000				
42.03	Project Vehicle		15,000	15,000					
42.04	Energy efficiency equipment (Capital Grants for demonstration projects, please see annex VI)		772,000	72,000	300,000	200,000	150,000	50,000	
49	Component Total		905,000	111,000	394,000	200,000	150,000	50,000	
50	Miscellaneous								
51	Operational Costs		80,000	10,000	15,000	15,000	15,000	15,000	10,000
52	Reporting Costs		35,000		7,000	7,000	7,000	7,000	7,000
53	Sundries		13,266	3,266	2,000	2,000	2,000	2,000	2,000
	<i>Subtotal of all the above</i>		<i>1,935,266</i>	<i>246,866</i>	<i>739,400</i>	<i>411,400</i>	<i>300,400</i>	<i>149,400</i>	<i>87,800</i>
54	Project Support Services		58,058	7,406	22,182	12,342	9,012	4,482	2,634
59	Component Total		186,324	20,672	46,182	36,342	33,012	28,482	21,634
99.00	Grand Total		1,993,324	254,272	761,582	423,742	309,412	153,882	90,434

⁴ Including Allowances

Annex 1 Summarised Work Plan (first 12 months)

[illegible]

Annex II Schedule of Project Reviews, Reporting and Evaluation*

<u>Description</u>	<u>Date</u>
Project Signing (starting) date:	August 1998
Recruitment of PMT	November 1998
Inception report	January 1999
First Project Performance Evaluation Report (PPER)	August 1999
First Tripartite Review Meeting	September 1999
:	:
:	:
:	:
:	:
Terminal Report	July 2003
Terminal Tripartite Review Meeting	August 2003

*) to be finalized at the outset of project operations.

Annex III Equipment Requirements

Expendable equipment (consumables) include items of a value of less than US \$ 400 with serviceable life expectancy of less than five years. The total value of expendable equipment has been estimated to US \$ 5,000.

Non-expendable equipment includes items of a value of US \$ 400 or more, with a serviceable life expectancy of at least five years. The executing/implementing agency will maintain inventory records of them.

A tentative list of the non-expendable equipment to be purchased under the project is as follows:

- | | | |
|----|--------------------------------------|--------------------|
| 1. | Communication and office equipment | US \$ 21,000 |
| 2. | Mobile monitoring facility equipment | US \$ 92,000 (max) |
| 3. | Project vehicle | US \$ 15,000 |

Communication and office equipment are necessary to improve the communication between ARCE headquarters and all other actors involved (i.e. ARCE territorial branches, PMT antenna, local authorities NGO's, demonstrative projects beneficiaries in Craiova and Ploiesti areas). All the equipment is necessary in the view to achieve the main goals of a communication and dissemination activities that will be taken place in the framework of Romanian GEF Project. This will constitute a completion to the existing available equipment which represent the Romanian in-kind contribution.

Upgrading the communication and office equipment will contribute to the removal of barriers regarding communication and dissemination facilities.

Taking into consideration the objective of the project, the beneficiaries of communication and office equipment will be:

- * ARCE headquarters;
- * ARCE territorial branches Ploiesti and Craiova;
- * local authorities and local work team from Ploiesti and Craiova ;

This equipment will consist of the following items:

Item	Piece	Total prices	Beneficiaries
1. Fax machine	3	3000 USD	Local teams Ploiesti and Craiova; ARCE territorial branches Ploiesti
2. Medium telephone switchboard	1	3000 USD	ARCE headquarters
3. Small telephone switchboard	2	3000 USD	ARCE territorial branches Ploiesti and Craiova
4. Pentium PC and Inkjet printer	2	4000 USD	Local teams Ploiesti and Craiova
5. Photocopy machine	1	8000 USD	ARCE headquarters
TOTAL		21,000 USD	

Mobile monitoring facility equipment

Due to the fact that in general the energy consumers do not have the appropriate equipment to measure energy consumption and the greenhouse emissions, this lack represents a barrier.

Removing this barrier by purchasing monitoring equipment will give the opportunity to measure the energy consumption and determine the greenhouse gas emissions before and after the implementation of the demonstration projects.

Because it is impossible to provide to all energy consumers these facilities, buying a mobile monitoring equipment for ARCE territorial branches in Ploiesti and Craiova is the best solution, solving the problem for most energy consumers situated in the demonstration area.

One of the major responsibilities of ARCE is to monitor and evaluate the results of the project.

Providing the ARCE territorial branches in Ploiesti and Craiova with a complete mobile monitoring equipment will improve the following aspects of their activity:

- increasing the staff capabilities to collect the information in order to prepare the technical documentation for the bankable loan dossier;
- to perform energy audits with better quality for energy consumers; and
- to monitor the results of the demonstration projects and to process the data in order to offer technical solutions for similar situations;

The beneficiaries of this mobile monitoring facilities equipment are the ARCE territorial branches in Ploiesti and Craiova and the local consumers of the energy.

There are two options for mobile equipment purchasing:

Option I:

Item	Piece	Total prices
1. Car	2	30 000 USD
2. Chemical gas analyser (O ₂ ; CO ₂ ; CO; consumable)	2	15 000 USD
3. Natural gas flow meter	2	6 000 USD
4. Thermal energy meter	2	7 400 USD
5. Radiation pyrometer	2	5 000 USD
6. Temperature measurement case	2	1 600 USD
7. Electrical case	2	13 000 USD
8. Laptop computer with portable printer	2	6 000 USD
TOTAL		84 000 USD

Option II:

To buy all the items mentioned above only for Craiova ARCE territorial branch and for Ploiesti ARCE territorial branch to purchase thermovision equipment. The total price for thermovision equipment is estimated to 50 000 USD resulting in total amount of 92 000 USD.

This proposal is justified due to the fact that ARCE do not have this kind of facility, there is just a few in Romania and it is extremely useful for providing a clear building walls termoradiography. As a consequence, ARCE will be able to provide complete high quality services for the buildings sector audits.

The project will follow UNDP procurement procedures, according to the value of purchased goods. UNDP/GEF supported equipment will remain UNDP property until formally transferred or disposed of. Disposal of equipment, including transfer, and final decision thereon will be made by the UNDP Resident Representative, in consultation with the Parties concerned. The executing/implementing agency will be responsible for ensuring that the use of equipment and supplies procured with UNDP/GEF funds are strictly for the purpose of the project. It will see for its proper custody, maintenance and care, and provide UNDP, upon request, with information regarding the use, storage and maintenance of such equipment.

Annex IV **Terms of Reference - Project Management / Mobilisation Team (PMT)**

The **Project Mobilisation/Management Team** will be established to manage and support the overall implementation of the project activities.

In line with the project activities, outputs and objectives, the focus of the work of the PMT will essentially be the following:

Management of the implementation of the project, ensuring that the activities are implemented according to the Project Document, and the outputs and the immediate objectives of the project are met in a timely manner;

Building the capacity of the local stakeholders to implement and ensure the sustainability of the project activities and outputs;

Improve the information exchange and to facilitate the access to nationally and internationally available information on project related topics;

Liase with the relevant governmental and private sector entities to identify existing legal, regulatory, institutional and financial barriers to energy efficiency investments in Romania and to make recommendations and/or support measures to remove these barriers; and

Mobilisation of additional financial resources to finance the identified energy efficiency measures by:

- assisting the local stakeholders to identify viable EE investment projects, especially on the demand side;
- undertaking negotiations with the relevant local and international financing institutions to determine which of these entities would be able and interested in financing energy efficiency investments in Romania, and their terms and conditions for such financing;
- leveraging financial resources from these organisations by helping to meet their terms and conditions, e.g. in the form of an investment incentive (grant), or loan guarantee, and by removing other barriers identified in the negotiations;
- assisting the local stakeholders to finalise loan documents and other backup material for their loan applications¹; and
- providing support for and/or acting otherwise as an intermediary between project clients and funding sources until the loan agreement has been signed, and afterwards as needed.

Staffing of the PMT will include an internationally recruited Chief Technical Advisor (CTA), his Romanian counterpart (from ARCE) and Romanian technical and financial experts. The CTA's functions have been described in the Terms of Reference in Annex V. The selection of the PMT staff including the CTA will be made in accordance with the UNDP rules and regulations, and approved by the Project Steering Committee in consultation with the UNDP Office in Bucharest and the UNDP/GEF Unit in New York.

The PMT will work closely with ARCE, which acts as the executing agency for the project on behalf of the Government of Romania. Throughout the project implementation, the PMT should also maintain regular links for co-ordination with the PHARE Energy PMU in Bucharest in order to ensure complementarity of the proposed specific actions.

¹ While larger beneficiaries will probably have the ability to do this task themselves, small to mid-size commercial entities will probably need substantial assistance in this area. Further, as municipalities and municipal enterprises will soon be taking their first steps into the commercial capital markets this type of technical assistance will be crucial.

The PMT will ensure that the transfer of experience and skills developed during the implementation of the overall GEF project are maintained and well documented. Together with ARCE and the other project stakeholders the PMT will recommend and set-up operational procedures that will stimulate and promote energy efficiency investments at the local level.

Although the PMT will be set-up specifically to facilitate the implementation of the project activities, yet it has the mandate to develop its own capacity to become by the end of the project a self autonomous entity, managed by the national staff, providing services to promote the investments on energy efficiency in Romania;

Beside the project activities and outputs listed in chapter D of the project document, the PMT will ensure that the following specific activities and outputs are produced:

PMT Management Functions

- a) establish the PMT office in Bucharest and the antennae offices in Ploiesti and Craiova;
- b) together with the NPD, prepare a detailed Annual Work plan of the PMT activities that will complement the other components of the GEF project;
- c) discuss on a daily basis with the National Project Director of the progress of the GEF project and its orientations;
- d) prepare periodical project progress reports for the Project Steering Committee;
- e) assist in the tendering process of the project (when required);
- f) ensure the everyday management of the programme activities (demonstration projects, Capital Grant Facility, Technical Assistance and Capacity Building Programme, Local Energy Consultant Services Fund);
- g) receive and answer all GEF project enquiries;
- h) administer the capital grants for demonstration projects on behalf of the Project Steering Committee (once they have approved the application);
- i) supervise the work of the local and international consultants hired by the project;
- j) promote the project activities and objectives among governmental and non-governmental bodies domestically and internationally (including IFIs);
- k) assist in the technical and financial monitoring of the project components; and
- l) participate in the periodic review of the GEF programme and making recommendations as to how to reorient it if necessary.

PMT Capacity Building and Information Exchange Functions

- a) at least 10 ARCE staff members have been trained through the PMT's on-the-job training and periodic short lectures in aspects related to the identification, management and appraisal of EE investment projects;
- b) development of a detailed annual Technical Assistance package for ARCE at the national and local levels in co-operation with the NPD and the Project Steering Committee;
- c) a set of distance-learning training materials developed by the PMT staff concerning specific topics that will be identified with the local ARCE officials and local beneficiaries;
- d) a series of (at least 5) specialised technical and financial reports to improve the programme for EE investment for the different programme beneficiaries and participating institutions;
- e) a regular bulletin used for the promotion of the GEF project and the communication of its achievements;
- f) a Business Plan for the transformation of the PMT into an autonomous self sustaining entity able to promote energy efficiency investments in Romania;

- g) a series (at least 3) of one-day Workshops organised together with ARCE in order to promote the GEF project among potential beneficiaries and participants;
- h) undertake regular on-the-job training of ARCE staff in the Territorial Branches especially as regards the implementation of the demonstration projects and their monitoring.
- i) a number of project reports (§ Section 8) including the Final Report summarising the project's experience, conclusions and recommendations.

Liaison Functions

- a) organise regular meetings with the relevant governmental and private sector entities to promote the project activities and to identify barriers that might prevent meeting the project objectives;
- b) undertake consultations on how to remove these barriers;
- c) recommendations and proposed set of measures to remove the eventually remaining legal, regulatory and institutional barriers to energy efficiency investments in Romania; and
- d) promote the implementation of the proposed measures and changes

Mobilisation Functions

- a) develop the documentation necessary to attract complementary funding into the GEF programme from other IFIs (including the identification of investment opportunities in the municipal sector and finalise the documentation required by the FFEM for its appraisal process);
- b) negotiate with Romanian financial institutions the criteria that needs to be met to launch viable EE loans, including sensitising these institutions and adapting the GEF programme according to the market;
- c) based on the consultations with the possible investors and financial institutions, develop the detailed operating procedures for provision of capital grants for energy efficiency demonstration projects, in co-operation with the NPD and the Steering Committee;
- d) promote the GEF project actions, ensuring that all potential beneficiaries are aware of its different components
- e) together with the municipal and industrial beneficiaries develop project loan dossiers that can be submitted to banks and other lending institutions (with or without the a capital grant component);
- f) identify loan and demonstration project opportunities and assist the project sponsors in finalising their loan and grant applications;
- g) support or act as an intermediate to finalise the negotiations on the provision of loan until the loan agreement has been signed, and afterwards as needed;
- h) within the 3 year period, at least 10 demonstration projects (for a value of at least US \$ 3 million) launched and implemented through PMT with full support and technical assistance from the CTA;
- i) at the end of the project, at least US \$ 5 million additional energy efficiency investments leveraged from other national or international financing sources;
- j) promote the replication of the demonstration projects in other parts of Romania.

In the course of its capacity building role and its interactions with ARCE and municipal and industrial beneficiaries the PMT shall address in particular the following topics:

- a) EE project appraisal and selection criteria on the basis of pre-investment studies (convergence with energy and policy objectives, technical feasibility, environmental

- implication, economic justification, obtaining of clearances required by competent authorities, etc.);
- b) project risk analysis (technical, institutional, commercial) and possible guarantee;
 - c) project financing plan (financing by the beneficiary itself, equity contribution, domestic market borrowing, and possible external borrowing);
 - d) financial sources (domestic, international, public, private) and their procedures, and lending conditions;
 - e) procedures for financing application and criteria requested by lending organisations;
 - f) negotiation of financing agreement;
 - g) project overall monitoring (project organisation, contracting of equipment, works and services, project implementation/progress supervision, energy savings);
 - h) project reporting and auditing (progress control, and disbursement, loan utilisation, repayment);
 - i) financial management (financial commitment and disbursement, loan utilisation, repayment, cost and quality control); and
 - j) economic and financial impacts of adverse factors and possible corrective measures.

PMT Location and Time Frame for the Activities

The PMT will be established as an office in Bucharest that will work on a daily basis with ARCE and particularly with the National Project Director. Due to the need to interact on a permanent basis with ARCE staff, it is recommended that the PMT offices be located neighbouring (or even within) ARCE offices. The PMT will also establish two local antennae offices, one in Craiova and the other in Ploiesti. These offices will be located in the ARCE Territorial branches.

While the timing of the PMT tasks will basically be determined through the development of its Annual Work Plan, some key milestones for its first year of operation are presented below:

Inception Phase (week 0 to week 6):

- Establishment of the PMT offices in Bucharest, Craiova and Ploiesti (within 1 month of project start-up)
- Development of the detailed Annual Work Plan (within 1 month of project start-up)
- Writing of the Project Inception Report (week 5 to 6)
- Project Initiation Workshop and presentation of the detailed Annual Work Plan and Inception Report (week 6)

Programme Preparation Phase (week 7 to week 16):

- Undertake negotiations with the relevant local and international financing organisations to determine which of these entities would be able and interested in financing energy efficiency investments, and their terms and conditions for such financing (week 7 to 10) ;
- Discussions and joint workshops in Craiova and Ploiesti for municipal and industrial project partners (week 8 to 12).
- Finalising the detailed criteria and operational procedures for providing grants for the energy efficiency demonstration projects (week 10 to week 16)
- Developing Terms of Reference for project components that need to be tendered (week 10 to 14).

- Undertaking or commissioning the final design works (including baseline analysis) for the demonstration projects to be implemented in the first year (week 13 to week 16)
- Developing a list of detailed Technical Assistance actions for ARCE and local project beneficiaries (week 14 to 16)
- Develop a strategy/action plan for project promotional activities and information dissemination (week 10-16);

Programme Launch Phase - first year of operation (week 17 to week 52)

- Undertaking a promotional campaign (week 17 to week 20)
- Designing and setting up the PMT project monitoring and evaluation system (week 17 to week 20)
- Undertaking a series of discussions with project partners (potential beneficiaries and investors) so as to stimulate EE invest opportunities (continuous)
- Launching of the first demonstration projects (within 6 months)
- Monitor demonstration project progress and results (from week 24 onwards)
- First Annual Review (week 50)

Monitoring the Performance of the PMT

The Project Steering Committee will closely monitor the progress of the PMT activities and the advancement of the GEF project as a whole. In order to do so, the CTA will produce brief monthly Progress Reports to the Steering Committee. These will be discussed at a monthly Project Monitoring meeting.

The UNDP will be in charge of control of contract performance, approval, administration, funding and payment. The National Executing Agency, ARCE, shall appoint a National Project Director who will be the counterpart of the PMT - CTA, to whom the CTA will be reporting.

The annual Project Performance Evaluation Reports and the Terminal Report will be prepared as described in chapter H of the project document, according the standard UNDP rules and regulations.

The performance of the PMT will be specifically evaluated against its ability to leverage additional financial resources from local and international financing institutions, and specific measures and criteria to encourage this task will be explored at the outset of the project operations. It is understood that the Government counterpart and other organisations will co-operate fully with the PMT in order to achieve these performance targets.

Staffing of the PMT :

The PMT will include the following staff :

PMT office in Bucharest

- one internationally recruited Chief Technical Advisor (CTA)
- one locally recruited senior Technical Advisor - CTA counterpart (based in Bucharest)
- one locally recruited Financial Advisor (based in Bucharest)
- one locally recruited Technical Advisor (based in Bucharest)

PMT antenna offices in Ploiesti and Craiova

- one locally recruited Technical Advisor (based in Craiova)
- one locally recruited Technical Advisor (based in Ploiesti)

Short term experts (both internationally and locally recruited) will be used according to the specific needs of the programme. The PMT should develop and maintain a list of short term experts from which appropriate services can be drawn on.

Annex V Terms of Reference - Chief Technical Adviser and Other Technical Support

UNDP is seeking a Chief Technical Adviser (CTA) for a project entitled 'Capacity Building for GHG Emission Reductions through Energy Efficiency in Romania'. This project is a five-year initiative being supported by funds from the Global Environment Facility, the EU-PHARE programme, the French GEF, and the Romanian Government. The project is an ambitious 5-year undertaking to remove institutional, financial and other barriers towards increasing financing and implementation of energy efficiency investments in Romania. As part of this effort, the project is seeking to leverage financing for, and implement selected demonstration projects to gain experience on and demonstrate the feasibility of different approaches and financial arrangements. The targeted technology areas are: Combustion Efficiency, Heat Recovery in Industry, Electric Motors, Municipal Lighting, and Modernisation of District Heating Systems and Energy Efficiency in Buildings.

As the leader of the Project Management Team, the successful candidate is expected to manage and support the overall implementation of the project, emphasising training, capacity building, information dissemination and sustainability of the project outputs. The CTA should have a strong technical background and experience with the targeted technology areas. However, areas of equal importance are the ability to manage complex, multisectoral undertakings of this type involving a large multidisciplinary team, familiarity with financing of energy efficiency projects and the existing barriers to that, and familiarity with international co-operation, training and capacity building needs in the countries with economies in transition.

To facilitate the implementation and follow-up financing of the projects, the project will require close collaboration with the Romanian governmental and non-governmental organisations, participating donors as well as with the local and international financing institutions, including European Bank for Reconstruction and Development, the World Bank, and others.

Requirements:

- An advanced degree (equivalent to M.Sc. or higher) in energy or related field;
- A minimum of 10 years working experience in energy or related field, including one or more of the targeted technology areas;
- Familiarity with financing energy efficiency projects and the existing barriers to that;
- In-depth practical experience of managing large and complex projects;
- Experience with professional training in technical and managerial areas;
- Knowledge and working experience with Romanian institutions relevant to the project activities;
- Familiarity with the proceedings and specific requirements of the bilateral and/or multilateral technical assistance agencies and financial institutions (World Bank, EBRD, ADB, etc.)

The candidate must be fluent in English, and the ability to speak French and/or Romanian would be considered a plus.

The total commitment of the CTA will run to 22 man-months over three years, and the successful candidate must be willing to relocate to Bucharest full-time for the first year and part time for the following two years of the project.

In addition, the project will require technical support and consultant services to an estimated total amount of 10 man-months in the following areas:

- use of modern information technology and available resources to gather and disseminate information in the project relevant fields;
- provision of training on the technical, economic, financial and environmental evaluation and appraisal of energy efficiency projects in the selected subject areas;
- provision of training on project financing;
- provision of training on project management and monitoring;
- provision of training on the institutional, legal and regulatory issues related to the energy efficiency improvements; and
- in other areas as identified in the course of project implementation.

Submissions from individuals and companies are invited either separately for the CTA post and other technical support, or for a framework contract to cover both areas.

Annex VI **Provisions for Providing Grants for Energy Efficiency Demonstration Projects**

The rapid evolution of the domestic credit market is creating many new entities that can provide financing for energy efficiency investments. These new entities include: private domestic banks, international banks with Romania operations, dedicated credit lines either from the IFIs or bilateral export promotion lines, supplier financing, and ESCOs. In the municipal sector, the current discussions about a « municipal development bank » that would be funded partially by EBRD are of particular importance.

One of the principal roles of this project will be to identify and develop liaisons with these new institutions. Specifically the project will:

- a) determine which of these entities are able and willing to provide financing for energy efficiency investments;
- b) the terms and conditions for such financing;
- c) reduce the risk and transaction costs of these entities to finance energy efficiency investments and remove other barriers identified in the negotiations;
- d) assisting the local stakeholders to prepare loan documents and other backup material for the loan application; and
- e) act otherwise as an intermediary between project clients and funding sources, and support the overall project preparation.

The project is also envisioned to provide additional financial credibility to the investment proposals mobilised and appraised by the project.

In line with the activities 3.1.1 -3.1.3 the project will:

- Undertake consultations (eventually organize a workshop) with the local banks and other financing sources (including municipalities, the EBRD ECFS scheme, SOF ESCO scheme) to explore their criteria and possibilities to co-finance the proposed energy efficiency investments;
- Review and finalize the selection criteria for the demonstration projects, based on the co-financing possibilities of the local stakeholders and considering the demonstration value of the suggested financial arrangements for potential future financing partners (local banks, long term credit lines for energy efficiency investments established by regional development banks, equipment manufacturers, and specific “environmental” funds); and
- Establishment and operationalization of the grant financing scheme.

Criteria for Selecting Demonstration Projects for Grant Financing

The criteria for selecting demonstration projects for partial grant financing will be finalised at the outset of project operations, based on the consultations with all the relevant local stakeholders (including local banks) and participating donors. However, the general criteria for this financing scheme will be as follows:

1. The financing will be provided in the form of a grant as an “investment incentive”;

2. During the first year of the operation of the scheme, a limited number of projects can apply for 100% grant financing. The rationality for this is to launch rapidly a limited number of demonstration/capacity building projects to demonstrate the technical and economic viability of the proposed measures, and to collect information and experience for leveraging financing and preparing loan documents for larger projects;
3. The total share of the projects financed 100% by the grant should not exceed 20% of the total amount of UNDP/GEF funds (US \$ 900,000) allocated for capital grants. For individual projects, the grant should not exceed US \$ 50,000.

The projects financed by a 100% grant are subject to the same evaluation, appraisal and monitoring process as if the projects would be financed by a commercial loan. As such they will serve as a simulation to convince the target beneficiaries of the technical, economic and financial feasibility of the projects of similar type.

4. During the first two years of the operation of the scheme, projects above US \$ 50,000 and all other projects not eligible for 100% grant financing, are limited to a grant not greater than 20% of the total capital costs of the project. The remainder should be financed by the entity's own funds and/or by commercial borrowing. After two years of the operation of the scheme, the share of the grant financing for new projects should gradually decline, being 0% in the end of the UNDP/GEF project.

The Project Steering Committee will control the use of funds, with the responsibility of approving the funding, evaluating the proposals, and finalising the conditions for the funding.

Since the grant financing scheme can only be seen as a temporary measure to stimulate the EE investment market and to develop the experience in this area, the PMT and its partners need to have a specific emphasis throughout the implementation of the project to investigate and identify measures to replace the grant facility with other incentives which are long term and based on competitive market factors.

Steps for Obtaining a Capital Grant

The principle is that any potential client can propose a project to be supported by a grant. The responsibility for co-ordination rests with ARCE, and the principal evaluation and technical and financial support rests with the PMT. Approval of individual applications for grants will be the responsibility of the Project Steering Committee.

The proposed steps for obtaining a grant are outlined below:

<i>Step</i>	<i>Detail</i>
1.	Submission of preliminary proposals to PMT and NPD by: <ul style="list-style-type: none"> • local or national ARCE • NGOs • industries • municipalities, municipal entities; • emerging actors (ESCOs, housing co-operatives etc.)
2.	Review of the proposal by PMT and ARCE NPD, and if accepted, signing of a co-operation agreement with the client.
3.	Development of a detailed work plan and budget for the project, in co-operation with the client and PMT, including a technical, economic, financial and environmental

	evaluation and appraisal of the project
4.	Decision of the PMT and ARCE NPD whether to submit the proposal to the Project Steering Committee (PSC).
5.	Decision of the PSC whether to approve (including the decision of the participating donors which of them will provide the actual grant for the project), request additional information, or deny the proposal.
6.	If approved, ARCE and PMT will request the identified donor to provide the grant upon verification that full financing is arranged and the implementation plan is in place (taking into consideration the procurement procedures described below).
7.	Procurement of the equipment and provision of other services (according to the respective donor procedures). The donor and the client work out an agreement (contract) which specify the terms of the grant.
8.	ARCE verifies that installation is according to plan and provides monitoring of energy and GHG performance.
9.	PMT develops case studies and assures the diffusion of the results of the demonstration projects.

Procedures for Applying Grants From Different Donors

Since funds for capital grants are partly made available by other donors as parallel financing to the project, the actual provision of these grants is dependent on the specific requirements of each organisation. At the outset of project operations, each participating organisation should therefore clarify in writing:

- the terms and conditions of the grants;
- the mechanism and timing of approving such grants; and
- the fiduciary responsibilities entailed in utilising the grant.

Based on these conditions, the submission of a capital grant request to the Project Steering Committee should identify which donor's funds were appropriate. The representative of that donor(s) will certify if the proposal is appropriate for funding and that the money is available. Upon the final approval of the grant, the donor is expected to make the funds available as soon as possible (ideally within 30 days). The financial flow for each donor is described briefly here below :

For RENEL (based on existing RENEL practices with this type of project) :

1. the PMT and NPD will receive a request from a beneficiary (client).
2. the NPD will provide a technical appraisal and the PMT-CTA will provide a financial appraisal of the request.
3. the dossier will be presented to the PSC for their appraisal.
4. if the request is positive the NPD will write RENEL requesting them to issue a cheque or bank transfer from their bank (specifying the conditions of payment, instalments terms etc. in a contract with the client).
5. RENEL's bank will make the payment .

For the Government of Romania (based on previous practices of funding through the Government's « Special Fund for Developing the Energy System »):

1. the PMT and NPD will receive a request from a beneficiary (client).
2. the NPD will provide a technical appraisal and the PMT-CTA will provide a financial appraisal of the request.
3. the dossier will be presented to the PSC for their appraisal.
4. if the appraisal is positive, the NPD will write RENEL (which has been mandated by the MIT to administer the Special Fund) requesting them to issue a cheque or bank transfer from their bank (specifying the conditions of payment, instalments terms etc. in a contract with the client).
5. RENEL's bank will make the payment.

For Phare (based on Phare Decentralised Implementation System):

1. Phare will launch a tender for the implementation of a technical assistance and demonstration (investment capital costs).
2. the winner of the tender will be contracted by Phare Energy Programme Romania to undertake the pre-feasibility, feasibility work of the demonstration and its implementation.
3. the proposed demonstration project will be submitted to the PSC for approval by the Phare Contractor (the NPD or PMT could be requested to supply their technical and financial assessment respectively of the demonstration project's merits).
4. once this proposed project is approved, the Phare PMU will issue payment for the demonstration implementation portion of the project according to Phare procedures and the contract established between the Contractor and Phare PMU.

For UNDP (based on UNDP nationally executed project procedures):

1. the PMT and NPD will receive a request from a beneficiary (client).
2. the NPD will provide a technical appraisal and the PMT-CTA will provide a financial appraisal of the request
3. the dossier will be presented to the PSC for their approval
4. if the appraisal is positive, the NPD will write UNDP requesting them to procure the services or equipment stipulated in the proposed project
5. a consultation of several suppliers will be undertaken (possibly with the assistance of NPD and PMT) according to UNDP procurement procedures.
6. For human resources, a service contract between UNDP Bucharest and the consultant will be established once a UNDP review Panel (including NPD) approves the proposed CVs
7. for equipment, the UNDP's Purchase Committee will obtain different quotes for the specified equipment and will choose a supplier
8. procurement will then be undertaken by UNDP (taking into consideration the UN tax exemptions if this equipment is imported). The modalities of payment will be assessed as part of the contract according to UNDP disbursement procedures.
9. the services and equipment will be made available to the beneficiary

Each respective donor would thus be a « cashier » (through their respective banks and/or accounts), and the individual donors of the Project Steering Committee will also control the use of funds (with assistance when required by the PMT and ARCE NPD for proposal appraisal, or project monitoring).

Annex VII **Description of the Technology Areas for Demonstration Projects**

The project's demonstration projects will need to illustrate technical, financial and administrative innovation so as to provide the Romanian institutions industries and municipalities with examples of how to promote and implement alternatives for energy efficiency investments. In addition to demonstrating technological options, the projects will also focus on associating various institutions and partnerships (industries, NGOs, consulting firms, local banks, IFIs, public and semi-public entities) in their development and implementation. A variety of financing partnerships and mechanisms will also be endeavoured.

In order that these demonstrations illustrate the widest possible variety of technical solutions different technological areas have been targeted and specific EE demonstration projects identified. The initial focus of the demonstration projects has been in five basic technological areas, which have high potential for energy efficiency and GHG minimisation. These five technology areas are:

1. Improved combustion efficiency
2. Heat recovery in industry
3. Electric motor controls and electrical efficiency
4. Energy efficient municipal lighting
5. Modernisation of district heating systems and improved energy efficiency in buildings.

Specific potential demonstration projects in these five areas are presented below. A detailed assessment of the technical and financial aspects of these projects is provided in the Appendix document. In all demonstration projects, the PMT will provide assistance in preparing the project loan application, assist the beneficiary in discussions with the bank and monitor the progress and quality of the installation. Additional consultant services may be required in the proper installation of equipment, but this should be included in the demonstration project budget.

Technology Area 1 - Improved Combustion Efficiency

Background

Many surveys have identified that most combustion equipment, boilers and furnaces, in Romania are operating at low combustion efficiency with a consequent waste of energy and increased emission of Greenhouse Gas emissions and other pollutants. The boilers and burners are generally old and difficult to optimise or modulate. Combustion control systems are often rudimentary and not automated, and efforts to improve combustion efficiency will pay large dividends in terms of reducing GHG emissions.

Originally Technology Area 1 was envisaged as providing only a combustion efficiency service. This service, however, is available from a number of private sector consultancies and it has been decided to refocus Technology Area 1 to help fund demonstration projects aimed at increasing combustion efficiency. These projects will include the installation of modern high efficiency burners and modern design boilers with fully automated control systems, designed to operate continuously at optimum conditions, and thereby considerably improving overall energy efficiency and reducing the emission of GHGs.

Immediate objectives

1. To demonstrate industrial boiler combustion improvements by providing technical and financial support for the implementation of the following three selected demonstration projects:

- Modernisation of the Thermal Power Plant at SC Electroputere SA in Craiova.
- Modernisation of the Thermal Power Plant at SC Elpreco SA in Craiova
- Modernisation of a Boiler at SC Texind SA in Craiova

Full details of the companies, the projects, and the technical and financial appraisal of the companies and the individual projects are provided in the Appendix document.

2. Develop and support replication projects, based on the results achieved with the demonstration projects

Outputs

- Three demonstration projects successfully implemented, aimed at improving the combustion efficiency in steam and hot water boilers
- Case studies produced for each demonstration project.
- Potential replications identified

Activities

The consultant will be responsible for ensuring that the following tasks are properly carried out:

- Checking the specifications of the major items of equipment to be installed on each demonstration project.
- The installation of appropriate metering equipment to enable the results of the demonstration projects to be properly measured and recorded.
- Monitoring the results of the demonstration projects.
- Preparation by the consultant of Case studies for the demonstration projects.
- Dissemination of the results of the projects - locally and nationally.
- Identification of potential project replication sites.
- Technical and financial evaluation and development of potential replication projects.

Duration

Initially 18 months of project development work in Craiova.

Technology Area 2 - Heat Recovery in Industry

Background

Significant levels of heat recovery in industry can be achieved in the main process manufacturing areas, in the Utilities generation and distribution systems, and in the buildings and warehouses. Due to the wide range of possibilities that exist for heat recovery in industry a wide range of techniques are applied.

Heat recovery opportunities from manufacturing processes depend on the process itself, but in many instances the techniques and equipment used are standard, and provide the opportunity for replication elsewhere. Typical items of equipment include heat exchangers (of various designs) and pumps, and improved measurement and control systems.

A proper analysis of process heat recovery opportunities requires a detailed understanding of the manufacturing process and its use of energy. It is considered unlikely that sufficient information exists at the present time to enable heat recovery opportunities to be properly explored for manufacturing processes in general, and this provides a significant challenge for the future, as in Western industrial companies this is where significant energy savings have been made.

Heat recovery from Utilities generation and distribution systems uses techniques and equipment that is more widely capable of being replicated. Typical of these is steam condense recovery. Heat recovery in buildings and warehouses provides a further opportunity for energy savings, but these tend to be site specific, and not necessarily easily replicated at other locations.

A number of heat recovery technologies were promoted in Romania prior to 1989 including recuperative burners. These technologies, however, were not particularly successful as the proper design, installation and maintenance of the equipment was often neglected.

Similarly, condense recovery systems, although not a new idea in Romania, have fallen into disuse due to many factors including the problems associated with returning condense to remote centralised boilers, and the relatively cheap price of thermal energy. Failure to return condense into the boiler feedwater systems has led to major secondary problems with boiler operation, as the water treatment plants have not been able to meet the demand of the boilers, and as a result untreated water is frequently used for boiler feedwater make-up. The final result of this sequence of events is a dramatic reduction in the efficiency and operating lifetime of many of the boilers in use in Romanian industry today.

Immediate objectives

1. To demonstrate the benefits of steam condense recovery by providing technical and financial support for the implementation of a demonstration project which will install a steam condense recovery system in a major manufacturing site (SC Electroputere SA at Craiova).

Full details of the company, the project, and the technical and financial appraisal of the company and the project are provided in the Technical Document not attached to this Project.

2. Develop and support replication projects, based on the results achieved with the demonstration project.

3. To encourage and support local industry in Craiova to undertake manufacturing process studies, with the objective of identifying and developing heat recovery projects directly related to the manufacturing process.

Outputs

- One steam condense recovery system installed on a large manufacturing site as a demonstration project.
- Case studies produced for the steam condense recovery system project.
- Potential replications identified.
- Identification of three to five significant justifiable manufacturing processes heat recovery projects in Craiova.

Activities

The consultant will be responsible for ensuring that the following tasks are properly carried out:

- Checking the specifications of the major items of equipment to be installed.
- The installation of appropriate metering equipment to enable the results of the demonstration project to be properly measured and recorded.
- Monitoring the results of the demonstration project.
- Preparation by the consultant of the Case study for the demonstration project.
- Dissemination of the results of the project - locally and nationally.
- Identification of potential project replication sites.
- Technical and financial evaluation and development of potential replication projects.
- Identifying sectors and techniques with the most potential for savings and replication.
- Providing support to manufacturing companies in Craiova when undertaking detailed analyses of manufacturing processes, to enable potential heat recovery projects to be identified and developed.

Duration

Initially 18 months of project development work in Craiova.

Technology Area 3 - Electric motor controls and improved electrical efficiency

Background

Surveys have identified that there is a very large potential for the economic application of electric motor controllers such as Variable Speed Drives in Romania. Many motors are oversized and this adds to the potential for saving through the widespread application of this technology.

Approximately 50% of the total electricity supply to industry are used for pumps, fans and fluid compressors. Wide scale application of Variable Speed Drives could save 5% of the total end-use electricity in Romania. There are a number of Romanian products available on the market but there appears to have been little market penetration, despite the rapid paybacks that are possible.

Reactive power losses arise due the operation of a wide range of industrial equipment. These reactive power losses can be corrected using large standard capacitors, which are normally operated, at a fixed capacity level. The installation of capacitors provides direct benefit to the user by reducing his overall electricity load. The use of fixed and variable load capacitors will be demonstrated by this current project.

Changes in manufacturing capacities and workshops utilisation in many industries in Romania has resulted in many centralised utilities and support systems becoming inefficient. It is therefore of paramount importance that industrial organisations should, from time to time, reappraise their systems, and identify methods of improving any inefficient and redundant equipment. The situation may be improved in some instances by taking a fresh look at the overall system and installing a system based on a new design concept, which enables fans and pumps to be downsized

Immediate objectives

1. To demonstrate economically viable techniques for Variable Speed Drives systems in two selected industrial locations in Craiova.

2. To demonstrate two economically viable techniques for power factor correction in industry in Craiova.

3. To support a demonstration project that will significantly reduce the electrical power consumed by the ventilation system on a manufacturing site in Craiova.

Full details of the companies, the projects, and the technical and financial appraisal of the companies and the individual projects are provided in the Technical Document (not attached).

Outputs

- A total of five projects successfully installed to demonstrate the application in industry of variable speed drives, power factor correction equipment, and electrical load reduction by redesigning facilities to meet changed needs.
- Case studies produced for each demonstration project.
- Potential replications identified

Activities

The consultant will be responsible for ensuring that the following tasks are properly carried out:

- Checking the specifications of the major items of equipment to be installed on each demonstration project.
- The installation of appropriate metering equipment to enable the results of the demonstration projects to be properly measured and recorded.
- Monitoring the results of the demonstration projects.
- Preparation by the consultant of the Case study for the demonstration project.
- Dissemination of the results of the projects - locally and nationally.
- Identification of potential project replication sites.
- Technical and financial evaluation and development of potential replication projects.
- Identify sectors and techniques with most potential for savings and replication.

Duration

Initially 18 months of project development work in Craiova.

Technology Area 4 - Energy Efficient Municipal Lighting

Background

Standards of municipal lighting have traditionally been poor in Romania, however, a number of local authorities are now working to upgrade their street lighting as part of their modernisation campaign.

There is concern that in some instances the municipal authorities will specify cheap lamps, which are not energy efficient.

Even where energy efficient lamps have been installed there is a concern related to the control of the level of illumination throughout the nighttime period. Tests in Romania by RENEL, and demonstration in France, have shown that large energy savings can be achieved by installing controllers at each lighting transformer which will allow the level of illumination to be reduced during the middle-of-the-night period.

Immediate objectives

1. To demonstrate a reduction in electrical power consumption by installing nighttime illumination control equipment on a part of the street lighting system in Ploiesti.

Details of the Ploiesti municipal authority and the technical and financial appraisal of project are provided in a Technical Document not attached to this Project.

Outputs

- Implementation of the demonstration project
- Preparation and dissemination of a case study on the demonstration project
- Potential replications identified

Activities

The consultant will be responsible for ensuring that the following tasks are properly carried out:

- Checking the specifications of the major items of equipment to be installed.
- The installation of appropriate metering equipment to enable the results of the demonstration project to be properly measured and recorded.
- Monitoring the results of the demonstration project.
- Preparation by the consultant of the Case study for the demonstration project.
- Dissemination of the results of the project - locally and nationally.
- Identification of potential project replication sites.
- Technical and financial evaluation and development of potential replication projects.

Duration

12 months of project development work in Ploiesti

Implementation: fully implemented by RENEL

Technology Area 5 - Modernisation of District Heating Systems and Improved Energy Efficiency in buildings

Background

Several studies of district heating networks have shown the large potential for improving energy efficiency and end-user comfort by modernising, and in some cases decentralising, the existing large district heating networks. On the demand side, various studies have been completed which show how the consumer can make energy efficiency improvements at the point of use of the thermal energy.

This Technology Area of the GEF project will support the installation of a series of demonstration projects ranging from supply and distribution, to the efficient use of heating and hot water in private dwellings and public buildings. In addition technical support will be provided to undertake a major project feasibility study relating to the possible replacement of PETROTEL as the source of thermal energy for the Mihai Bravu district of Ploiesti.

Immediate objectives

1. To demonstrate the use of low cost techniques for improving energy efficiency and comfort levels in dwellings and public buildings. The specific projects which will be supported both technically and financially by this project are:

- I L Caragiale High School Building Rehabilitation

- Obstetrics and Gynaecological Hospital Building Rehabilitation
 - Control and Metering in an Apartment block
2. To demonstrate improved efficiency in the method of supplying heat and hot water from a District Heating system. The specific projects which will be supported both technically and financially by this project are:
- Variable Speed hot water pumps
 - Compact Station in an Apartment block
3. To complete an in-depth study of the possible methods of replacing PETROTEL as the source of thermal energy for the Mihai Bravu district of Ploiesti

Full details of the projects, and their technical and financial appraisal, are provided in the Technical Document not attached to this Project.

Outputs

- Five demonstration projects successfully implemented, aimed at demonstrating the wide range of energy efficiency opportunities available with District Heating systems.
- Case studies produced for each demonstration project.
- Potential replications identified
- A recommendation regarding the replacement of PETROTEL as the thermal energy source of supply to the Mihai Bravu district of Ploiesti

Activities

The consultant will be responsible for ensuring that the following tasks are properly carried out:

- Checking the specifications of the major items of equipment to be installed on each demonstration project.
- The installation of appropriate metering equipment to enable the results of the demonstration projects to be properly measured and recorded.
- Monitoring the results of the demonstration projects.
- Preparation by the consultant of the Case studies for the demonstration projects.
- Dissemination of the results of the projects - locally and nationally.
- Identification of potential project replication sites.
- Technical and financial evaluation and development of potential replication projects.
- Completion of the in-depth study of the possible methods of replacing PETROTEL as the source of thermal energy for the Mihai Bravu district of Ploiesti

Duration

Initially 12 months of project development work in Ploiesti.

Annex VIII Notes on General Information Dissemination

In line with the Output 4.1 and the activities 4.1.1-4.1.2, the following provisions on the general dissemination of information and the project results are given.

Background

The information gained from previous demonstration projects, supported by the Government and managed by ARCE, was not properly disseminated mainly due to the lack of funds for this activity. Seventy demonstration projects were carried out and some data exist on all of them, although not all have been monitored as closely as they should be. This activity aims to do three things; produce and disseminate case studies and information regarding the existing demonstration projects managed by ARCE, produce and disseminate case studies on the demonstration projects funded by the specific Technology Areas, and disseminate general information about the benefits of energy efficiency and what people can do to increase their own energy efficiency in their apartment.

Immediate Objectives - Technical Information Dissemination

- to produce case studies in a standard format from the existing demonstration projects monitored by ARCE and to distribute these to appropriate audiences including *inter alia*, the ARCE Territorial Branches, State Ownership Fund Territorial Branches, Directorates of the Ministry of Industries and Trade, Trade Associations.
- to produce case studies from any successful projects already carried out in the Energy Action Area
- to produce case studies for the demonstration projects funded by Technology Areas and distribute them to appropriate audiences, as above.

Immediate Objectives - General Information

- to develop suitable information packages for different target audiences within the selected area and to use appropriate channels to disseminate information. This information will be general in nature and aimed at informing the public about the needs and benefits of energy efficiency as well as about the project.

Outputs/Deliverables

Technical information dissemination

- Case studies produced for each technical demonstration project
- Case studies produced for the existing ARCE demonstration projects
- Case studies for any suitable projects already carried out in the Energy Action Area.

General information dissemination

- Energy awareness evaluated prior to campaign
- Information campaign for general population (based on on-going Phare project) designed
- General awareness campaign implemented

Activities- Technical Information Dissemination

- The Consultant shall specify the design and presentation of case study materials
- The Consultant shall analyse the data on the existing 70 demonstration projects and produce case studies on the projects. This activity should include follow-up contacts with the host enterprises to assess current performance and any problems encountered with the technology.
- The Consultant shall produce case studies form each of the demonstration projects carried out in the different Technology Areas.
- The Consultant shall disseminate the case studies to appropriate audiences, ARCE Territorial Branches, industrial sectors, trade associations, the State Ownership Funds, the Private Ownership Funds, directorates of the Ministry of Industries.
- The Consultant shall hold seminars to publicise the demonstration projects as required.
- The Consultant shall work with potential replicators to identify replication projects.

Activities - General Information Dissemination

- The Consultant shall select target audience(s)
- The Consultant shall audit awareness in target audience(s)
- The Consultant shall involve appropriate local organisations e.g. NGOs
- The Consultant shall design appropriate information packages
- The Consultant shall select distribution channels
- The Consultant shall implement dissemination of information
- The Consultant shall audit awareness in target audience(s) during and after the campaign

Activities - General

- The Consultant shall prepare materials and work to publicise the GEF project both with the selected Energy Action Area and elsewhere in the country.

Inputs

As well as Consultants this activity shall include a budget line for investment support so that early replicators can be assisted with an additional grant from the project funds.

Broad Development Goal

The broad development goal pursued by the project is the provision of adequate energy services for the Romanian enterprises, municipalities and households.

Baseline

Carbon dioxide emissions in Romania amounted to 123 Mt in 1991. Per capita emissions were almost 10 tons in 1989 and fell to 6 tons by 1993 due to the sharp decrease in industrial production. However, the GHG emissions remain high compared to the level of economic activity with 2,120 tons of CO₂ per US\$M of GDP, compared to 665 tons in the European Union and 810 tons in the ASEAN countries. In the same year (1993), total primary energy supply (TPES) was 48 Mtoe, ranking Romania third in terms of energy consumption in Eastern Europe behind Poland and the Czech Republic.

In the baseline course of action the investments on energy efficiency will continue at the same slow rate that they have proceeded in the past or they won't take place at all. This would result in, together with the economic recovery, a sharp increase of Romania's GHG emissions.

The sectors that the project is targeting (improved combustion efficiency, heat recovery in industry, electric motor controls and electrical efficiency, energy efficient municipal lighting, modernisation of district heating systems and improved energy efficiency in buildings) contributed about 57.6% of Romania's total Greenhouse Gas Emissions in 1996 with an estimated annual growth rate of 5% without the suggested energy efficiency programs and 1.5% with the programs.

Global Environmental Objective

The Global Environmental Objective of the project is to minimise the GHG emissions from energy production in Romania by utilising the existing, economically feasible opportunities for improved energy efficiency to the full extent.

Alternative

As described in section "Project Setting and Justification" there are a number of barriers, which currently prohibit energy investments of taking place in Romania. The GEF project will remove these barriers by:

- building capacity of the project stakeholders to identify, develop, finance (including the mobilisation of it) and implement local strategies, programmes and specific measures to improve the energy efficiency in different sectors;
- promoting co-operation between the different sectoral ministries, and between the governmental and non-governmental organisations to take energy efficiency considerations increasingly into account in the general strategy formulation, legislation and public sector financing, not only from the environmental but also from the economic and social point of view;

- demonstrating the technical, economic, financial, environmental and social feasibility of energy efficiency investments through a grant-loan financing mechanism, and by leveraging other financial resources for a number of key energy efficiency technologies and sectors; and
- monitoring, evaluating and disseminating information on the results achieved during the project.

The incremental costs analysis of the project is summarised in the following table:

	Baseline	Alternative	Increment
Global Environmental Benefit	The energy consumption of the targeted sectors will remain high resulting in net GHG emissions of 190 Mt over the next 20 years	Through the investments on demand side energy efficiency, the energy consumption of the targeted sectors has been considerably reduced resulting in net GHG emissions of 97.8 Mt over the next 20 years	Net reduction of GHG emissions by 93.2 Mt over the next 20 years
Domestic Benefit	Provision of adequate energy services for the Romanian enterprises, municipalities and households in the sectors targeted.	Provision of adequate energy services for the Romanian enterprises, municipalities and households in the sectors targeted.	Nil.
Costs	Long-run marginal costs of increasing the energy supply with an estimated 5 % annual growth rate of energy consumption US\$ X ² million	Long-run marginal costs of increasing the energy supply with an estimated 1.5 % annual growth rate of energy consumption + total capital and annualised O&M costs of energy efficiency investments + costs of removing the existing barriers to energy efficiency investments of taking place ≤ US\$ X ² + 2,268 mill.	The economic costs of the targeted energy efficiency measures are likely to be equal or less than the LRMC of increasing the energy supply. The incremental costs of the project raise from the need to remove the existing barriers, before these energy efficiency investments will take place. US\$ 2,268 million

² It was not possible to estimate the exact LRMC on increasing the energy supply. However, the overall cost of the targeted energy efficiency investments are likely to be equal or less than the LRMC of increasing the energy supply over the 1.5 % increase rate estimated in the alternative option, thereby resulting in the incremental costs of being equal to the costs of removing the prevailing barriers.

Project Component	Baseline Costs	Alternative Costs	Incremental Costs
Project management and co-ordination	0	US \$ 540,000	US \$ 540,000
Capacity building and training (Immediate Objective 2)	0	US \$ 656,000	US \$ 656,000
Demonstration of selected technologies and financing arrangements (Immediate Objective 3)	US \$ 2,650,000 (parallel financing) US \$ 5,000,000 (additional resources estimated to be mobilised during the implementation)	US \$ 8,422,000	US \$ 772,000
Monitoring, evaluation and dissemination of the results and lessons learned (Immediate Objective 4)	0	US \$ 300,000	US \$ 300,000
GRAND TOTAL	US \$ 7,650,000	US \$ 9,918,00	US \$ 2,268,000

Annex X FINANCIAL AND ACCOUNTING ARRANGEMENTS *)
(a model annex to the project document for government executed projects)

Financial and accounting arrangements

A. General

1. The [government authority named on cover page of project document], hereinafter referred to as "the Government", is responsible to the Administrator of UNDP for the custody and proper use of funds advanced to it by UNDP.
2. The Government will maintain separate accounts [including a separate bank account] for UNDP resources. It will use the funds provided to it only for inputs financed by UNDP, in accordance with the project budget covering UNDP's contribution. (See PPM Part III, section 30305, subsection 3.0.)
3. Advances of funds to and payments by UNDP on behalf of Governments are governed by the applicable UNDP Financial Regulations and Rules and directives regarding the utilization of currencies.
4. The Government will provide UNDP with financial statements of UNDP funds received and spent, prepared in accordance with the UNDP financial year (1 January to 31 December) in [English, French or Spanish]^a. The periodicity and content of such statements are set out below. Annual financial statements will be audited by the legally recognized auditors of the Government's own accounts. To the extent feasible, the audit principles and procedures prescribed for the United Nations will be applied by the auditors, who will provide audit reports annually together with the reports set out below.
5. For the purpose of reporting to UNDP, US dollar equivalents will be calculated at the United Nations operational rates of exchange. The resident representative of UNDP will inform the Government of such United Nations rates of exchange and of changes thereto when they occur.

B. Advance of funds

6. Advances will be made by the resident representative at the request of the Government in accordance with the project document and in the required currencies subject to the conditions set out below.
7. The Government will indicate its cash requirements from UNDP funds for each period of the schedule of advances included in the project document at least two weeks before payment is due (attachment 1 of this annex, Request for advance of funds). Advances will be made by UNDP at the time indicated in the schedule of advances, in the amounts and currencies requested by the Government. (See also paragraph 9, below for requests for cash advances in currencies not available to the UNDP field office.)
8. If the schedule of advances included in the project document no longer reflects actual requirements for funds, a new schedule will be prepared by the Government in consultation with the resident representative, in accordance with the format indicated in attachment 5 of

^a Amend as appropriate

this annex, Schedule of advances. Advances should normally be sufficient to cover anticipated cash requirements for a maximum of three months.

9. Local currency advances to the Government will normally be made by the resident representative.

10. Advances to the Government in US dollars will be made by the resident representative if this currency is available to him or her. The resident representative will arrange for advances in currencies not available to him or her to be made by UNDP headquarters or other field offices, as deemed appropriate.

C. Direct payments by UNDP

11. At the request of the Government, UNDP will, after verification of the supporting documentation, make payments directly to individuals or firms providing UNDP-financed services or goods. The requests will be addressed to the resident representative who will either arrange for the payments to be made by his or her office or by UNDP headquarters. The requests will indicate payee, amounts and currencies required, justification for the request and payment instructions reflecting payee's bank, its address and the account number.

12. The resident representative will provide the Government with statements of direct payments made by UNDP within 15 days following 30 April, 31 August and 31 December, for incorporation in the project delivery report in accordance with paragraph 13 (b), below.

D. Periodic financial statements

13. The Government will furnish the resident representative with certified financial statements within 30 days following 30 April and 31 August and within 60 days following 31 December. The statements will include the following:

(a) Status of funds advanced by UNDP (attachment 2 of this annex). The statement will be submitted for each period indicated above and will be prepared in the currency of the advance. Separate statements will be issued where different currencies have been advanced. Each statement will reflect cumulatively for the year the amount of funds available at the beginning of the year, funds advanced by UNDP, funds expended by the Government during the reporting period and the resulting balance at the end of that period. The statement will also detail expenditure incurred by month in local currency and the US dollar equivalent calculated at the applicable United Nations operational rate of exchange;

(b) Project delivery report (attachment 3 of this annex). The report will be submitted for each period indicated above and will reflect cumulative current-year expenditure classified according to the items listed in the approved project budget. It will incorporate the expenditure incurred by the Government and, where appropriate, the expenditure statement of the co-operating agency, if any, and the statement of direct payments made by UNDP;

(c) Annual report of UNDP-financed non-expendable equipment (attachment 4 of this annex). The Government will furnish the resident representative, for the year to 31 December, within 60 days following that date and together with other financial statements due at that date, with an annual report of non-expendable equipment. The report will include all UNDP-financed non-expendable equipment furnished to the project during the year. Non-expendable equipment purchased by the co-operating agency, if any, and furnished to the

project will also be included. The report will describe each item in detail, list the identification number given by the Government and the serial or registration number assigned by the maker and reflect the cost at the US dollar equivalent at the time of purchase calculated at the United Nations operational rate of exchange;

(d) Expenditure statement for jointly financed projects. In the case of joint financing of project activities by the Government and UNDP and, as the case may be, other sources of assistance, the certified financial statements referred to above shall be accompanied by a separate statement reflecting expenditure for the full project covering the same period as the certified financial statements. To this expenditure statement should be added an indication of the apportionment by the Government of the reported expenditure to UNDP's contribution and other available funds.

14. If the Government cannot submit the financial statements on the date on which they are due, it will inform the resident representative of the reasons and indicate the planned submission date.

E. Government's annual audited financial statements

15. A certified and audited annual financial statement of the status of funds advanced by UNDP, as described in paragraph 13 (a), above, will be made available by the Government to the resident representative within 120 days after the end of the calendar year.

16. The financial statement will be audited and attested to by the entity specified in paragraph 4, above.

F. Government final financial statements

17. Upon financial completion of UNDP assistance to a project, the Government will provide final financial statements to cover the period 1 January to the date of either financial completion or refund of the unspent balance of UNDP funds, if any (see paragraph 18, below). The financial statements will be audited so as to conform to the requirements set out in section E above. The format given in attachments 2 and 3 of this annex should be used. The statements will be provided within 120 days from the date of financial completion to the Director, DOF, with copies to the UNDP resident representative.

18. If there is an unspent cash balance of UNDP funds held by the Government, that balance will be refunded by the Government in the currency of the advance not later than 30 days after the date of financial completion.

G. Audit by UNDP

19. All accounts maintained by the Government for UNDP resources may be audited by the UNDP internal auditors and/or the United Nations Board of Auditors or by public accountants designated by the United Nations Board of Auditors.

Attachment 1

GOVERNMENT OF _____

REQUEST FOR ADVANCE OF FUNDS FROM UNDP

FOR PROJECT _____ NO: __/ __

For the period from _____ 19 __ to _____ 19 __

Currency	Cash in hand at the beginning of period	Estimated disbursements to end of period	Net advance required	Payment details		
				Bank	Account title Name and address	Number

Certified by:

Name (typed)

Title

Government agency (department)

Attachment 2

GOVERNMENT OF _____

STATUS OF FUNDS ADVANCED BY UNDP^a

FOR PROJECT _____ NO. ____ / ____ / ____

For the period 1 January to _____ 19__
(In _____ [currency] _____)

A. Summary of funds received and expended Amount
(In currency of advance)

Balance at 1 January 19__ XXX XXX

Add: Advances received from UNDP XXX XXX

Total funds available for project purposes XXX XXX

Deduct: Total expenditure for year-to-date YYY YYY^b

Balance at 19__ XXX XXX

=====

Represented by:

Cash in bank XXX XXX

Cash on hand XXX XXX

Balance at 19__ XXX XXX

^a A separate statement is required for each currency advanced by UNDP.

^b This amount should be the same as the total expenditure (in currency of advance) in table B.

B. Summary of expenditure by month

	Expenditure (In currency of advance)	UN operational rate of exchange	Expenditure (In US \$ equivalent)
January	XX XXX	X.XX	XX XXX
February	XX XXX	X.XX	XX XXX
March	XX XXX	X.XX	XX XXX
April	XX XXX	X.XX	XX XXX
May	XX XXX	X.XX	XX XXX
June	XX XXX	X.XX	XX XXX
July	XX XXX	X.XX	XX XXX
August	XX XXX	X.XX	XX XXX
September	XX XXX	X.XX	XX XXX
October	XX XXX	X.XX	XX XXX
November	XX XXX	X.XX	XX XXX
December	<u>XX XXX</u>	X.XX	<u>XX XXX</u>
Total	YYY YYY ^a =====		XXX XXX =====

Certified correct by:

 Name (typed)
 Chief Accountant
 Government agency (department)

Approved by:

 Name (typed)
 Title
 Government agency (department)

AUDIT CERTIFICATE
 (As issued and signed by the Auditors)
REQUIRED ONLY FOR ANNUAL AUDITED
AND FINAL AUDITED FINANCIAL STATEMENTS

^a This amount should be the same as the total expenditure for year-to-date in table A.

Attachment 3

GOVERNMENT OF _____

PROJECT TITLE _____ UNDP Project no. (____ / ____ / ____)

Project delivery report
for funds provided by United Nations Development Programme (UNDP)
for the period 1 January to _____ 19____

(Prepared in US dollars)

Budget line	Description	EXPENDITURE				Total
		Budget for year	Government	UNDP direct payments	Co-operating agency	
(1)	(2)	(3)	(4)	(5)	(6)	(7)
99.00	Total		a			

Certified correct by:

Approved by:

Name (typed)

Chief Accountant

Government agency (department)

Name (typed)

Title

Government agency (department)

AUDIT CERTIFICATE
(As issued and signed by the Auditors)
REQUIRED ONLY FOR ANNUAL AUDITED
AND FINAL AUDITED FINANCIAL STATEMENTS

^a Total of US dollars equivalent shown in each attachment 2.

Attachment 4

GOVERNMENT OF _____
Annual report of UNDP-financed non-expendable equipment^a

For project no: _____

For year ended 31 December 19__

	Description		Government identification number	Marker's serial or registration number	Cost in US dollars ^b
Total					

Certified by:

Name (typed)
Title
Government agency (department)

^a Includes those items of equipment valued at \$400 or more, and with a serviceable life of at least five years and those items of equipment although valued at less than \$400, which are office furniture, filing cabinets office machines, attractive items (such as cameras, projectors, stop watches, briefcases) or other similar items as determined by the Government.

^b US dollar equivalent at time of purchase calculated at the United Nations operational rate of exchange.

Attachment 5

[PROJECT NUMBER AND TITLE]

SCHEDULE OF ADVANCES ^a

US \$

A. Funds advanced to date

XXX XXX

B. Funds to be advanced in forthcoming 12 months ^b

i. To Government

<u>Date</u>	<u>Amount</u>
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
	Total

XXX XXX

ii. To co-operating agency

XX XXX

C. Funds to be advanced in subsequent periods

XXX XXX

TOTAL ALLOCATION PER PROJECT BUDGET (LINE 99)

=====

X XXX XXX

=====

^a To be included in the project document immediately following the budget for UNDP's contribution (part IV). Advances should only cover anticipated cash requirements for a maximum of three months.

^b The period to be covered should be the 12 months following the date of approval of the project revision.

1. It is very important that an experienced project manager is in charge of this project

This is very important indeed, and it has been reflected in the Terms of Reference of the CTA as well as in the section F of the Project Document: “Project Risks”

2. The proposal to allocate the overall management to the ARCE (Romanian Energy Agency) should be reconsidered, suggested is an external project manager and a decentralized approach giving responsibilities to regional entities

A separate Project Management Team with two regional antennae offices in Ploiesti and Craiova will be established, headed by an internationally recruited Chief Technical Adviser.

3. The size and number of project components are overly ambitious and should be reduced to a more realistic basis.

The co-operation arrangements with other donors have been clarified, thereby giving the main responsibility of some project components (especially the ones dealing with the municipalities) to EU/PHARE and FFEM.

4. Emphasis should be placed on the job training

Emphasis has been placed on the job training, as reflected in the section “Project Strategy” and in project activities.



ROMANIA
MINISTRY OF INDUSTRY AND TRADE

Office of the Minister

Date: 19.06.1998

Dear Mrs. Miller,

We acknowledge with thanks receipt of the final draft Project Document for the Global Environmental Facility funded project *"Green House Gas Emission Reduction through Energy Efficiency"*.

We fully agree with the contents of the document. Therefore, please note that you can now take the appropriate steps to have it cleared by the UNDP Project Appraisal Committee and sent it to the GEF council for final approval.

As agreed during the last day of the workshop the Ministry of Industry and Trade conforms its readiness to commit one million US dollars (in lei equivalent) from the special Energy fund for the implementation of this project. Please note that this money will be spent in accordance with the Romanian rules and regulations governing the special Energy funds.

Starting with 1999 (the first year of the project implementation) the Ministry of Industry and Trade will plan the expenditures under this contribution for the entire duration of the Project.

Thank you very much for your continuous support.



ADU BERCEANU

Minister

Ministry of Industry and Trade

M699

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Mrs. Leueen Miller
Resident Representative
UNDP BUCHAREST



**PREFECTURA JUDEȚULUI
PRAHOVA**

B-dul Republicii nr.2, Ploiești, 2000 Tel: 044-14.61.51 Fax: 044-14.60.67 / 11.99.40

PRAHOVA COUNTY GOVERNMENT

Nr.4073 / D1/A 5

Ploiești, 23.06.1998

TO: UNDP BUCHAREST

**IN ATTN: MRS. LEUREEN MILLER,
RESIDENT REPRESENTATIVE**

Dear Mrs. Miller,

We acknowledge with thanks receipt of the final draft Project Document for the Global Environmental Facility funded Project " Green House Gas Emmission Reduction through Energy Efficiency" .

As indicated during the third day of the workshop, the Municipality of Ploiesti will contribute "in -kind" to the Project activities undertaken in Ploiesti City.

The exact "in-kind" contribution will be determined jointly by Ploiesti Local Authority and the Project Steering Committee.


We avall ourselves of this opportunity to thank you again for selecting Ploiesti City as a Pilot Project Area.

Sincerely Yours,

GOVERNOR,

Romeo Octavian Hanganu





B-dul Republicii nr. 2
Ploiești, 2000,
Romania
Phone: 0040/44/ 115982
FAX: 0040/44/ 113829

NR. 18811/22.06.1998

U N D P B U C H A R E S T
IN THE ATTENTION OF MRS. LEUREEN MILLER,
RESIDENT REPRESENTATIVE

Dear Mrs. Miller,

We acknowledge with thanks receipt of the final draft Project Document for the Global Environmental Facility funded Project "Green House Gas Emission Reduction through Energy Efficiency".

As indicated during the second day of the workshop, the Municipality of Ploiesti will contribute "in-kind" to the Project activities undertaken in our city.

As communicated to all the participants in the Workshop, the exact "in-kind" contribution will be determined jointly by Ploiesti Local Authority and the Project Steering Committee.

We avail ourselves of this opportunity to thank you again for selecting our city as a Pilot Project Area.

Sincerely Yours,

ATORIA TOMA
MAYOR OF PLOIESTI CITY



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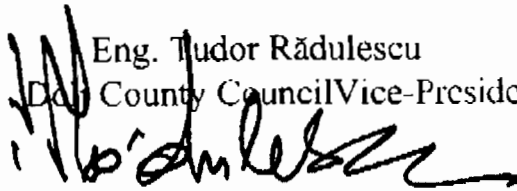
Mrs. Leueen Miller
Resident Representative
UNDP BUCHAREST

Dear Mrs. Miller

Thank you very much for the opportunity to attend the implementation of the GEF Workshop on Energy Efficiency.

Our city is very proud that it has been selected as a pilot area for the implementation of the GEF Project activities and we want to reaffirm our earlier commitment to supporting the local Pilot Projects with an in-kind contribution, which will be determined jointly with the National Steering Committee.

Thank you very much for your co-operation.

Eng. Tudor Rădulescu
Dol County Council Vice-President




Romanian Electricity Authority

Date: June 17, 1998

Dear Mrs. Miller,

Thank you very much for the Final Project Document forwarded to us. Through this letter I would like to once again reiterate the full support of RENEL in respect to its previous commitments, e.g. the participation with US\$ 200,000 (in lei equivalent) for the component "Energy Efficient Municipal Lighting".

Please note that as previously agreed, this component will be defined by RENEL's Ploiesti subsidiary branch together with its ARCE counterpart.

The technical documentation will be submitted for the clearance of the GEF Project Steering Committee and then officially submitted to RENEL for implementation. Once the project is completed, an official Report will be submitted to the Project Steering Committee, ARCE and UNDP.

Thank you very much for your continuous support.

Sincerely yours,

Aureliu Leca
President of RENEL

17
06 98

Mrs. Leueen Miller,
Resident Representative
United Nations Development Programme
Country Office Romanian
16 Aurel Vlaicu Str., Bucharest

H658

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UNDP			
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Romanian Electricity Authority
RENEL

33 Gen. Magheru Blvd., 70164 Bucharest, Romania
Phone /Fax: +(401) 312 31 63



Romanian Energy Policy Association
 Casa Academiei, Calea 13 Septembrie 13, Camere 6.223-6.225, Bucuresti Sector 5
 Tel: +401 4103200/ext. 2524; Tel/Fax: +401 781 7775; E-mail: aper@bx.logicnet.ro

Mr. Valentin Alexandrescu
 UNDP Resident Mission
 Bucharest, Romania
 Fax: 211 34 94

June 22, 1998

Reference: Capacity Building for GHG Emission Reduction Through Energy Efficiency Improvement in Romania

Dear Mr. Alexandrescu,

I would like to thank you for inviting the Romanian Energy Policy Association to attend the workshop "GEF Project on Energy Efficiency" on 11th June.

We consider the project to be a good opportunity to involve more areas of activity in a project which represents an innovative approach to the lack of investment in the field of energy efficiency in Romania. APER is happy to be involved in this project and will bring the experience gained during the advocacy campaign for the energy efficiency law which will be soon finished through introducing the law in the Parliament.

To bring in the attention of the decision makers the importance of the GEF project, in March 1998, APER organised a round table on the theme: "The Impact of Climate Change on Industry and Business. GEF Projects in Hungary and Romania". The GEF project for Romania was presented jointly by Messrs. Cornel Rotaru, Director General of ARCE and David Forbes, Senior Consultant with BCEOM. The first focused on the framework issues related to the project, while the second presented the technical approach and the two areas selected for the project.

APER supports the GEF Project on Energy Efficiency and considers that APER's capabilities and interest in energy efficiency field would be of benefit in the implementation phase of the project for Romania.

Looking forward to a future collaboration, I remain.

Yours sincerely,

Doma Calvianu
 Doma Calvianu



DATE 22-06-1998			
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APER gratefully acknowledges the continuing support of the European Commission and the SYNERGY programme



Soseaua Nordului 7-9, 71512, Sector 1, Bucharest, Romania

tel: 40 (0)1 2307480, fax: 40 (0)1 2307470

Date: 17 June 1998

To: Mrs. Leueen Miller, UNDP Resident Representative

From: Bogdan Parinici, President, The Ecologist Youth of Romania - TER

Subject: GEF Project on Energy Efficiency

Dear Mrs. Miller,

Thank you very much for the opportunity offered to our organization to participate in the GEF National Workshop on Energy Efficiency. I think that in the actual context of Romania's transition the aspects related to the energy efficiency issues especially on the burden that energy production and use are putting on the environment are essential. The fact that the civil society is supported through this project to be a part of the energy efficiency policy development at local and national level is also essential.

Therefore please be assured of our organization full support to this initiative.

Yours sincerely,

