



Mid-term Evaluation
of the UNDP-GEF project
“Public Sector Energy Efficiency Programme”
(HUN/00/004 and HUN/00/G31)

An evaluation carried out on behalf of the
United Nations Development Programme

by
Eco Ltd

and

GOND-OLD consulting

8 February 2004

This evaluation of the UNDP-GEF project “Public Sector Energy Efficiency Programme” (Project numbers HUN/00/004 and HUN/00/G31) was carried out between 19 and 24 January 2004.

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Contents

Contents	1
Introduction	3
Executive Summary	4
I. The Development Context	7
Background.....	7
Project outcomes and objectives.....	7
Key stakeholders and beneficiaries	8
II. Findings and Conclusions	9
A. Relevance and status of the outcomes	9
B. Factors affecting the outcomes	10
C. UNDP contributions to the outcome through outputs.....	11
Project design and relevance	11
Performance	12
Management arrangements	16
Overall success.....	17
Financial instrument.....	17
D. UNDP partnership strategy.....	20
Partnership with key stakeholders.....	20
Synergy with other activities.....	20
E. UNDP common rating system.....	20
III. Recommendations	22
IV. Lessons Learned	23
Appendix 1: Terms of Reference.....	25
Appendix 2: List of interviews	31
Appendix 3: List of Main Documentation Reviewed.....	32

Introduction

This evaluation report contains a mid-term evaluation of the UNDP-GEF Medium Scale project “Public Sector Energy Efficiency Programme” project numbers HUN/00/004 (TRAC) and HUN/00/G31 (GEF).

The evaluation team included one international and one national reviewer. A visit was made to Hungary by the international consultant 19 and 24 January 2004 and interviews with all relevant project stakeholders, including governmental representatives, municipal representatives, individual project beneficiaries, implementing agency, project executing agency, project staff and others were made.

The approach used for the evaluation was based on the results-oriented ‘outcome evaluation’ approach within the framework of Results Based Management. This approach generally covers a set of related projects, programmes and strategies intended to bring about outcomes¹. In this case, the focus of the review was a single project. The evaluation thus focuses more on the UNDP contribution to the outcome through the project outputs, and possible improvements that could be made to increase the performance of delivery of outputs and ultimately the desired outcomes.

Details of the people interviewed and the documents reviewed are given in the lists in annex 2 and 3. The national implementing agency “The Energy Centre”, the UNDP-GEF project manager and staff in Budapest gave excellent support during the evaluation.

¹ An outcome evaluation focuses on the ‘developmental changes between the completion of outputs and the achievement of impact’ (the outcomes), and encompasses efforts of partners working on the same issues. The evaluation assesses how and why outcomes are or are not achieved within a given context, and the role that UNDP has played in bringing these about. Outcome evaluations also help to clarify underlying factors affecting the situation, highlight unintended consequences, recommend actions to improve performance in future programming, and generate lessons learned.

Executive Summary

The “Public Sector Energy Efficiency Programme”, supported by UNDP TRAC (USD 400 000) and the Global Environment Facility – GEF (USD 4.2 million), runs from the beginning of 2001 until the end of 2005. Parallel financing of USD 2.8 million and USD 250 thousand ‘in kind’ from government sources, and between 9 and 13 million USD from private investors is envisioned. The programme aims to overcome institutional, financial, technical and capacity barriers to energy efficiency in the Public Sector, contributing to the creation of a sustainable market for energy efficiency in this sector. As a result of energy efficiency investments the project should result in carbon emission reductions of at least 300 000 tonnes of carbon over the 20-year lifetime of the projects, and the planned parallel financing (for the envisioned 40 investment projects realized by the end of the project, this means co-financing on a project by project basis of between 225 000 and 325 000 USD). Key project elements contributing to these targets include:

- The establishment of a fund for supporting energy audits and feasibility studies in the public sector,
- The development the energy audit standard and certification system.
- Information dissemination on energy efficiency technologies and energy management.
- Training at the municipal and regional levels for municipal energy managers.
- Development of national monitoring and evaluation systems for energy efficiency programmes.

The project execution agency is the Hungarian Ministry of Economy and Transport (the Department of Energy), and the implementing agency is the Energy Centre, a non-profit company owned jointly by the Ministry of Economy and Transport and the Ministry of Environment and Water (and originally established in 1992 with assistance of the European Commission).

This mid-term evaluation aims to contribute to effective project implementation and ensuring proper documentation of lessons learned by assessing the relevance of the project, project performance (progress in terms of effectiveness, efficiency and timeliness), management arrangements focused on project implementation, and overall success of the project with regard to impact, sustainability, and contribution to capacity development. The evaluation assessed project synergies with other similar projects, evaluated the efficiency, relevance and sustainability of the financial instrument set up within the project, including its potential impact on leveraging co-financing, and makes recommendations for further development of the project.

Project relevance

Analysis of national policies and priorities, and discussions with public and private sector stakeholders shows that the UNDP/GEF project is fully consistent with national priorities and measures, and reflects the high priority put on public sector energy efficiency within Hungarian energy policy. The project is generally well designed, the objectives are in line with the needs of Hungary and fully harmonised with the energy policy of the country and also with the EU energy policy priorities. In the period between the design of the project (2000) and this mid-term evaluation, the relevance of the project appears to have increased. The original design and project strategy is good, and generally does not need to be changed. The various elements of the project have been well designed taking into account the needs of the target groups. This is reflected in the opinions of those interviewed: the representatives of the municipalities interviewed are satisfied with the objectives, approach, and the outcomes of the project.

Performance

Management, decision-making and institutional factors caused significant delays during the first two years of project execution. However, following changes made early in 2003 the project is now moving forward rapidly. The early delays however have meant that the achievement of the project outcomes (particularly in realized and Comparing the outputs with the original work plan in the first two years of the project some delays has been observed. In the second half of 2003 excellent progress is visible on all the main lines (training courses, awareness raising actions, information dissemination, developing monitoring methods, operating financial tools for supporting audits and preparing feasibility studies). The delay in the project implementation has been reduced, and the project team is to be commended for their efforts.

Mid-term Evaluation – UNDP-GEF Energy Efficiency project Hungary

In spite of the visible progress in the second half of 2003, a number of tasks of the work programme are being implemented later than originally planned: capacity building training courses, awareness rising actions, the one-stop-shop, fund applications and evaluations, the national standard for audits etc. In order to achieve the project outcome before the end of the project will now be very challenging.

Management arrangements

The project is currently well managed following project management difficulties in the first two years of the project. Communication between the different teams of the project is well organised, and the level of cooperation between teams members in the implementation of the tasks also appears to be good. The communication with the Steering Committee, the Project Board, the management of the Energy Centre and UNDP/GEF is operating without any problems. The recommendations and suggestions of the stakeholders are regularly built in the development of the project.

Financial instrument

In order to increase the number of energy audits and feasibility studies undertaken in the municipality sector a support fund has been established by the project. With 102 applications for funding support received during the second half of 2003 (following only 2 applications received in 2002), the fund finally started to operate as originally planned. The delay of about 2 years means that investments based on audits / feasibility studies is significantly behind schedule, and target co-financing targets are unlikely to be met unless measures are taken to accelerate realisation of investments before the end of the project.

UNDP partnership strategy

The UNDP is principally working with the Hungarian Energy Centre which is the implementing agency. The Energy Centre is very well placed to influence the achievement of the project outcomes. In project implementation the approach of working through regional advice centres appears to be excellent, and is an effective way for the Energy Centre to reach the smaller and remote municipalities. Through the Energy Centre the project has strong connections to the other national level energy efficiency programmes and projects. The synergy of the different programmes is good and the financial instrument set up in the frame of the project seems to be a useful tool for generating new Energy Efficiency projects which are fit for the requirements to the national level investment programmes.

Main recommendations

- a) Achieving the greenhouse gas, energy efficiency and investment targets described in the project document is a significant challenge. Realizing investment projects needs to be the primary focus of all activities in the coming two years if the project team is to stand any chance of achieving audited projects leading to investments and 9-13 million USD in co-financing. The following specific recommendations are made:
 - i. Fast-tracking selected audit applications through auditing and provide follow-up technical and financial engineering support aimed at the preparation and realisation of investments. This may include help to identify funding structures, prepare funding applications and bankable proposals, and assist in preparation of tender documents.
 - ii. Shifting some funding focus to larger municipalities,
 - iii. Delinking audits from feasibility studies,
 - iv. Energy audits for small projects to include sections on project development and realistic financing scenarios, and
 - v. Increasing incentives for project realisation through the funding scheme, with a greater proportion of funding given only on successful realisation of investment projects.
- b) Project indicators, which can more easily be tracked and measured than those defined in the project document should be developed.
- c) The ongoing monitoring of the project implementation and progress to achieving the overall outcomes and the sustainability of the implementation mechanisms, should be strengthened, and communicated regularly with the project team.
- d) Stronger links between the monitoring, training and funding tasks could be developed if a municipal benchmarking system were developed. This could then form an important part of the training for energy managers, the selected benchmark could be useful for assessment of funding support, and would naturally form part of the monitoring tasks.

Mid-term Evaluation – UNDP-GEF Energy Efficiency project Hungary

- e) It is the opinion of the reviewers that renewable energy, while perhaps indirectly relevant, is a distraction from the task of this project, and could easily (particularly regarding the ‘feasibility studies’ supported by the funding scheme, but also in, for example, the training course) distract attention from the task of this project. Activities supporting renewable energy should be very carefully reviewed, and not pursued, unless justified from an energy efficiency perspective.
- f) If demand for the audit and feasibility study funding continues to grow as indicated by the interest at the end of 2003, then additional capacity will be needed to process applications swiftly.

I. The Development Context

Background

1. UNDP has been providing technical assistance to Hungary for more than 30 years. Due to the neutral and commercial and political nature of its assistance, UNDP is perceived by the Government to be an important partner in technical cooperation.
2. The “Public Sector Energy Efficiency Programme” is supported by funding from UNDP TRAC as well as from the Global Environment Facility (GEF). The Project Document HUN/00/004 was signed on December 15, 2000 (for UNDP TRAC funding) and GEF Project Document HUN/00/G41 was signed on March 30, 2001. The project execution agency is the Ministry of Economy and Transport (Department of Energy), and the project’s implementing agency is the Energy Centre, a non-profit company owned jointly by the Ministry of Economy and Transport and the Ministry of Environment and Water (and originally established in 1992 with assistance of the European Commission).

Project outcomes and objectives

3. The overall development goal of the project (the project outcome for GEF) is “to reduce Hungary’s greenhouse gas emissions by improving the efficiency of energy use in the public sector”. The project contributes to the UNDP SRF Goal “G3 Environment”, Sub-goal “G3-SGN1 Sustainable environmental management and energy development to improve the livelihood and security of the poor”, and Strategic Area of Support “G3-SGN1-SASN2 Institutional framework for sustainable environmental management and energy development”. The intended UNDP outcome is “Improved capacity of national and local authorities, public institutions and private sector to plan and implement integrated approaches to energy development”.
4. This is to be achieved by addressing institutional, financial, technical and capacity barriers for energy efficiency, thus contributing to the creation of a sustainable market for energy efficiency services in the public sector in Hungary. Investments in energy efficiency directly related to the project could reduce carbon emissions by at least 300 000 tonnes of carbon over the 20-year lifetime of the investment projects.
5. The problems being addressed by this project include:
 - High greenhouse gas emissions and low energy efficiency in the municipal sector, principally in district heating, institutional buildings, and street lighting.
 - District heating covers about 16% of total households in Hungary, and suffers generally from inefficiencies in heat generation, heat transmission, and in end use. There are about 140 district heating companies in Hungary, which operate 280 systems in about 100 towns and cities. These companies supply approximately 644 000 apartments. Individual heat metering at the apartment level is minimal, and considerable investment is required in the modernisation of district heating systems.
 - Many municipalities do not have energy managers, and lack awareness of potential improvements, as well as the technical and financial capacity to identify and implement energy efficiency improvements. Since municipalities have many other pressing needs, energy efficiency is frequently overlooked.
 - As well as the lack of demand for energy efficiency services from municipalities there is a lack of supply of such services. In addition barriers make it difficult for smaller municipalities to make use of commercial services (including ESCO services), and have difficulties identifying qualified auditors and ESCOs since no certifying and quality control mechanism exists for energy auditors and energy audits.
 - There is an unwillingness to pay for energy audits and feasibility studies since they do not in themselves provide any savings.
 - There is a lack of a centralized information point relating to the terms and conditions of the different credit facilities, and there is insufficient co-ordination between the different funds.
6. To overcome these problems the UNDP/GEF project has three main objectives:
 - Improved development of energy efficiency policy, increased awareness, and improved co-ordination of energy efficiency programmes.

Mid-term Evaluation – UNDP-GEF Energy Efficiency project Hungary

- Identification, development, and financing of energy efficiency projects in Hungarian municipalities.
 - An improved knowledge base for municipal decision makers and municipal energy users concerning energy management and energy efficiency technologies.
7. From those objectives, there are several project elements:
- Establishing a fund for supporting energy audits and feasibility studies in the public sector,
 - Development of an energy audit standard and certification system.
 - Information dissemination on energy efficiency technologies and management.
 - Training at the municipal and regional levels as well as for the staff of the Energy Centre.
 - Monitoring and evaluation system development and implementation for energy efficiency programmes.

Key stakeholders and beneficiaries

8. The most important direct beneficiary of the project are Hungarian municipalities who will have access to the training, documentation and the special fund. As a result of the outreach and training activities of the project, the elected officials of the municipalities will be much more aware of the importance, and benefits (and meaning) of energy efficiency, and whose energy managers will participate in the training and education programmes. Within municipalities are the operators/managers of municipally-operated institutions and facilities including schools, hospitals, district heating systems etc.
9. The second direct beneficiary will be the energy services companies (ESCOs and other service providers working in the Energy Sector) who undertake energy audits (and those who gain employment in the growing energy efficiency services sector) and who participate in the certification scheme for energy auditors/ energy audits. The fund and the awareness of the importance of audits should provide a growing market for their services.
10. The third set of beneficiaries of the project are the new Energy Centre and the regional/local energy advice centres, who will benefit in several ways. Firstly, the Energy Centre and the regional/local energy advice centres will benefit directly through the training for their staff which will be undertaken through the project. Secondly these institutions will benefit from the expansion of their knowledge and skills base through the implementation of this project. This should increase the need for their own services by municipalities.
11. The Energy Centre and Government benefit because the long-term capacity of the Energy Centre will be expanded through the development of the M&E system, training modules, the database development and a well-trained and experienced and motivated staff.
12. There are many stakeholders that benefit from this project more indirectly. These include relevant Ministries of the Government that have their own priorities reflected within the project. In particular, this includes the Ministry of Environment since the project is to effect important GHG emissions reductions and be part of the Government's climate change strategy. Other Government stakeholders include the Ministry of Interior, since it works directly with municipalities. The project will bring direct benefits to the Hungarian population. GHG emissions and air pollution will be reduced as a result of the improvement in energy efficiency in Hungarian municipalities and public sector institutions.

II. Findings and Conclusions

13. The discussion that follows covers the current status of the project outcomes, and reviews key factors which affect the achievement of the project outcomes. However, since this evaluation focuses on possible mid-term adjustments to the project outputs and implementation the main findings address the UNDP project contributions to achieving the outcomes through outputs. These are discussed in section C below.

A. Relevance and status of the outcomes

14. The intended outcomes on which this project focuses are:
- Reduced greenhouse gas emissions in Hungary by improvements in the efficiency of energy use in the public sector (GEF Development Goal)
 - Improved capacity of national and local authorities, public institutions and private sector to plan and implement integrated approaches to energy development (UNDP SRF)

Relevance

15. The UNDP Country Cooperation Framework emphasises governance, regional development, economic planning, public sector management, and environmental management. This project supports capacity development in several of those focal areas. This project is fully consistent with the priorities identified by the UNDP, as well as Government programmes aimed at improving energy efficiency in the public sector in Hungary.
16. Since 1999 the Hungarian Government has entered a new phase in policies aimed at improving energy efficiency. Based on the principles of the “Business Model of the Energy Sector” (Parliamentary Resolution of July 1999) and related policy decisions, the government adopted a new “Energy Conservation and Energy Efficiency Improvement Action Programme” that began in 2000 and is to run until 2010. This Action Programme is part of the Széchenyi Plan, a broad effort to fund modernisation of the Hungarian Economy launched in 2000. The Action Programme lists 15 areas of conservation for financial support. It targets 3.5% per year reduction of energy intensity as a main goal. The Action Programme includes a large number of measures relevant to or targeted at the public sector, namely:
- Energy saving attitude, ongoing education (measure 2)
 - To improve the energy management of local governments (measure 5)
 - Support for population and public energy saving (measure 11)
 - To increase the application of alternative heating systems (measure 12)
 - Modernisation of energy consumption used for public lighting for local governments (measure 13)
 - Renewal of district heating systems, making the district heating supply competitive (measure 15)
17. Municipalities represent an important policy area for energy efficiency policy. There are approximately 3200 municipalities in Hungary. The main energy use / efficiency issues for municipalities include district heating (about 100 municipalities have district heating systems), energy efficiency in institutional buildings, and public lighting. Energy can comprise a significant part of a municipality’s budgets, typically 5%, but in exceptional cases as much as 25%. There are, however, many constraints – severe lack of finances and other important priorities, restructuring that has affected municipal revenues, and a lack of capability – primarily technical – in many municipalities, particularly small to medium-sized ones. These combine with the need to reduce costs of the municipal budgets and to address local environmental concerns.
18. Policy efforts relevant to energy efficiency include the recent work to develop the Environment and Infrastructure Operational Programme (KIOP), part of the National Development Plan for using European Community structural funds that become available on accession this year to the European Union.
19. Hungary has fully participated in the global climate change deliberations and is a signatory to the Kyoto Protocol. Hungary is an Annex 1 country, meaning that it has to achieve a GHG emissions target by 2008-2012 of 6 per cent from its base period. Improved energy efficiency is seen as one important element in the climate change strategy as reflected in the second national communication to the UNFCCC.

Mid-term Evaluation – UNDP-GEF Energy Efficiency project Hungary

20. All of these aspects demonstrate that energy efficiency and greenhouse gas reductions are high priorities for Hungary and that this project is highly relevant to Hungary, and municipalities. The UNDP is one of the few external organisations that works on increasing capacity in energy efficiency in the public sector (the World Bank / IFC in contrast focus on the private sector). The UNDP through this project is well suited to tackle the public sector capacity issues.
21. The UNDP/GEF project is fully consistent with national measures, and reflects the high priority put on public sector energy efficiency within Hungarian energy policy. This was also reflected in discussions held with all stakeholders, where the unanimous consensus was that the project is ‘highly relevant’ and ‘becoming more relevant each year’.

Status of outcomes

22. The evaluators consulted a wide range of sources to try to identify the quantitative and qualitative baseline and current status of energy efficiency improvements and greenhouse gas emission reductions. These sources included the original project document, Hungary’s Second National Communication to the UNFCCC, and national statistical sources. Discussions with senior Energy Centre and Government officials confirmed that qualitative data on the (changes in the) energy efficiency and emissions of the municipal sector is not currently available. The project itself has, as yet, had only a limited impact on this GEF outcome.
23. On the other hand, discussions indicated that there have been real improvements in awareness of the potential for energy efficiency in municipalities, and a growing interest in improving energy efficiency in the public sector. There appear to be improvements in capacities of national and local authorities, public institutions and the private sector to plan and implement integrated approaches to energy development directly attributable to the UNDP/GEF activities.

B. Factors affecting the outcomes

24. The outcomes are affected by the following factors:

General

25. The *price of energy* (gas, oil, and electricity) strongly affects the interest of municipalities in energy saving. In Hungary ongoing price reforms, and removal of (cross) subsidies means that most of the consumers are currently paying close to the true costs of energy, but in the household sector the state subsidy system is still in operation. Rising energy costs, including a recent substantial hike in VAT, means that there is growing interest in energy saving within municipalities. This positively impacts on the project outcomes.
26. Supportive Hungarian energy policies mean that incentives exist for municipalities to consider energy saving, and make energy saving investments. This has a positive impact on the project outcomes and has facilitated progress towards achievement of these outcomes.
27. *Availability of financing* in the municipalities (own resources, access to credit, access to third party financing) for energy saving measures strongly affects the project outcomes. While a number of support mechanisms are in place, the financial situation in Hungarian municipalities (in particular the small and medium sized municipalities) appears to be getting worse. This means that municipalities use scarce resources in other sectors. This has a negative impact on achievement of the project outcomes, and impedes project progress.
28. *Growing demand for energy services* (more and improved services) in municipalities and end-users (for example increased levels of public lighting), means that, even if energy efficient investments are made, overall greenhouse gas emissions may continue to increase. This factor has a negative impact on greenhouse gas emission aspects of the project outcome.

Project specific

29. *Greater awareness* of energy saving potential and possibilities in the municipality and general public increases the demand for energy efficiency in the public sector. Where awareness of the benefits of energy saving

Mid-term Evaluation – UNDP-GEF Energy Efficiency project Hungary

increases this has a positive impact on achievement of the project outcomes. Trends in the Hungarian municipal sector are encouraging, largely as a result of the awareness and training activities of the UNDP/GEF project.

30. *Skill and capacity levels* in municipalities for the monitoring of energy consumption, and the ability to identify, develop and implement energy saving investments are important factors in the achievement of the project outcomes. This is particularly acute in small and medium sized municipalities where dedicated energy managers seldom exist, and general technical or accounting staff handles energy matters.
31. When municipalities do not trust energy specialists giving them advice, and banks do not value the audits and feasibility studies, then energy saving studies and investments are unlikely to take place. Lack of *energy audit standards and certification systems* is a factor in the acceptance of energy saving in municipalities.
32. *Available funds for supporting energy audits and feasibility studies* in the public sector, being a key component of the intervention strategy for this project, is clearly a key factor in the achievement of the project outcomes. If municipalities know the energy saving possibilities, potential and implementation costs they are far more likely to make energy saving investments than if energy saving potentials and costs are unknown. Following the experiences of the Energy Saving Credit Programme, grants were provided under the Széchenyi-Plan for local governments to elaborate local energy saving concepts, energy plans and perform energy audits. These grants operated in 2001 (75% grant, 110 applications), and 2002 (50% grant, 5 applications, provisionally stopped in August 2002), but no government budget was allocated to support this work in 2003.
33. The '*Conversion rate*' from audit / feasibility study to investment is a major factor in whether projected energy efficiency and greenhouse gas emission reductions are achieved in reality. This factor itself depends on more general factors including the interest of the municipality, the capacity to develop bankable proposals, and the availability of sufficient financial resources.

C. UNDP contributions to the outcome through outputs

Project design and relevance

34. The project is generally well designed, the objectives are in line with the needs of Hungary and fully harmonised with the energy policy of the country and also with the EU energy policy priorities.
35. In the period between design of the project (2000) and this mid-term evaluation, the relevance of the project appears to have increased. The original design and project strategy is good, and generally does not need to be changed. The various elements of the project have been designed taking into account the needs of the target groups. This is reflected in the opinions of those interviewed: the representatives of the municipalities interviewed are satisfied with the objectives, approach, and the outcomes of the project.
36. The project design from a project management point of view could have been better defined. In particular the project planning matrix (Annex IV) does not appear to have been written to facilitate project monitoring and evaluation – the project strategy is broken down into indicators which appear neither objective nor verifiable. In addition the relationship between objectives, outputs and activities described in the body of the document are not reflected in the project planning matrix.

Based on the experience concerning the monitoring and evaluation methods developed in the EU countries the monitoring team has started to develop an indicator system which is suitable to the monitoring and evaluation of energy efficiency projects in Hungary in general. This appears to offer a good opportunity to develop special tailor-made indicators for the monitoring and evaluation of the UNDP/GEF project itself. Clarification of the calculation method of the main success indicators (e.g. quantity of carbon emission reductions, involvement of private investors in the investment project financing) also appears to be necessary.

Mid-term Evaluation – UNDP-GEF Energy Efficiency project Hungary

The lack of indicators has meant that the project managers have had little guidance as to progress, and have had to construct indicators during project implementation, and in some cases retrospectively. Project management may be facilitated if the monitoring and evaluation team gives simple verifiable indicators to each element of the project strategy, and a new project planning matrix developed, allowing all project team members to work towards a set of well known indicators. This will also help in the final project evaluation.

37. The project is expected to bring direct benefits to the Hungarian municipalities as the main beneficiaries, but also to the energy service companies (ESCOs), other energy specialists, the national policy makers, and in general the Hungarian population. The Energy Centre will also benefit in several ways: increased training for their staff, expansion of knowledge and skills, new and effective methods which may be applied to existing and future work. The focus on municipalities and the regions reflect the priorities of the Government and fits well into the needs of the Energy Centre in order to strengthen the quality of services it provides to the public sector.
38. The beneficiaries are clearly identified in the project document and the project manager and steering committee have taken changing needs into consideration during project implementation. This flexibility has been important for the success of the project.
39. The project has carried out some awareness raising on the topic of renewable energy (biomass energy, wind energy). While it is clear that this is directly in response to demand from the municipalities (who are requesting information on these topics), the project team should think carefully about this issue. It is the opinion of the reviewers that renewable energy, while indirectly relevant, is a distraction from the task of this project, and could easily (particularly with reference to the 'feasibility studies' supported by the funding scheme, but also in, for example, the training course) distract attention from the task of this project. While the evaluators do not wish to be dogmatic, activities supporting renewable energy should be very carefully reviewed, and not pursued, unless there is a convincing argument to the contrary. This point is also discussed briefly under 'financial instrument' below.

Performance

40. Management, decision-making and institutional factors caused significant delays during the first two years of project execution. However, following changes made early in 2003 the project is now moving forward rapidly. The early delays however have meant that the achievement of the project outcomes (particularly in realized investment projects) are in serious jeopardy. Comparing the outputs with the original work plan in the first two years of the project some delays have been observed. In the second half of 2003 very spectacular progress is visible on all the main lines (training courses, awareness raising actions, information dissemination, developing monitoring methods, operating financial tools for supporting audits and preparing feasibility studies). The delay in the project implementation has been reduced, and the project team is to be commended for their efforts.
41. As mentioned in the preceding section the project document contains only rough indicators for the evaluation of achieving the project objectives. These indicators are perhaps suitable for the evaluation of the overall, long-term achievements of the project (on a 20 year horizon) but a more sophisticated indicator system should be used for the analysis of the cost effectiveness, the success rate of transforming inputs and outputs, the efficiency of the implementation and the achievement of the detailed goals. The evaluators have therefore been unable to assess progress through a consistent analysis of the originally planned impacts. Connected to this task, the monitoring of the project implementation and progress to achieving the overall outcomes and the sustainability of the effects and mechanisms developed should also be strengthened.
42. In spite of the visible progress in the second half of 2003, a number of tasks of the work programme are being implemented later than originally planned: capacity building training courses, awareness raising actions, the one-stop-shop, fund applications and evaluations, the national standard for audits etc. In order to achieve the project outcome before the end of the project will now be very challenging. Special attention will need to be

Mid-term Evaluation – UNDP-GEF Energy Efficiency project Hungary

given to this, as will be described in later sections (in particular see the section under the heading ‘financial instrument’).

43. Progress in project implementation against objectives, outputs, and activities is shown in the following table:

Objectives and Outputs	Status
Objective 1. Improve the development of energy efficiency policy, increase awareness, and improve coordination of energy efficiency programmes	
Output 1.1 Preparation for effective project implementation	Complete, on time according to workplan, although management issues, which were addressed through this output caused difficulties for the first two years of project implementation. The database, fund management support from the project is used as an integral part of all Energy Centre funding activities.
Output 1.2 Improved coordination of energy efficiency policy	Complete and on time, with a second review planned for the second half of 2004 (this was not specified in original workplan). Discussions with stakeholders indicated that the project was having a positive effect on the development of energy efficiency policy
Output 1.3 Strengthened outreach to municipalities and municipal energy supply companies, and strengthened local networks.	Ongoing, and on time according to workplan. The provision of information now forms part of the work of the training team. A large number of best practice brochures have been developed and disseminated. Evaluation of readership and impact appears to be warranted.
Output 1.4 Increase in the number of municipal energy managers	This output was revised by the Steering Committee in June 2003 since it was felt that this issue lay outside the control of the project.
Output 1.4 (new) Monitor the efficiency of training activities	Underway. To date, only basic evaluation data is available from the training courses.
Output 1.5 Development and operation of monitoring, evaluation and feedback mechanisms.	<p>Largely complete and on time: an inventory of EU monitoring and evaluation approaches has been developed, and systems put in place to monitor all fund support systems operated by the Energy Centre (including about 5000 applications per year under the National Energy Plan, 90% of which are approved, with government support of about 30%). The (ongoing) analysis and dissemination of feedback appears to be somewhat lacking to date (the evaluators were not supplied with any results from this analysis).</p> <p>Based on the inventory of EU experiences a methodology of monitoring and evaluation of national/regional/local energy efficiency programmes in Hungary is under development which will be soon published.</p>
Output 1.6 Sustainable development of the project	Activities under this output are planned for this year. This is consistent with the schedule given in the original workplan

Mid-term Evaluation – UNDP-GEF Energy Efficiency project Hungary

Objective 2. The identification, development, and financing of energy efficiency projects in Hungarian municipalities/ municipal district heating systems.	
Output 2.1 Increase in the number of energy audits and feasibility studies undertaken in municipalities/ district heating companies through a fund for energy audits/ feasibility studies	The fund operated effectively for the first time during the second half of 2003 – this is substantially behind the time schedule given in the original workplan. Over 100 applications for support were received during 2003. According to the project document “a minimum of 40 of the projects where an audit or feasibility study was supported should lead to concrete investment projects over the lifetime of the project”. This remains a significant challenge for the project team since the project outcome depends on this ‘conversion rate’.
Output 2.2 Establishment of a national standard for energy audits and programme of certification of energy auditors	A recommendation for certification of energy auditors has been sent to the Ministry of Economy and Transport, and indications are that some certification process will be implemented. Progress on developing national standards for the energy audits does not appear to have taken place to date – this reflects the fact that there were no activities described in the project document dealing with this issue. Relevance should be reassessed There are plans to develop building labelling standards during 2004. These activities are well behind the schedule proposed in the original workplan.
Output 2.3 Establishment of a ‘one-stop shop’ common database for applications for financing of energy efficiency projects	This has been partly completed and is undergoing continuous development and improvement. At present the structure of the one-stop-shop database has been prepared but the real content is largely incomplete: most of the information is not yet available on the home page of the Energy Centre. This output is somewhat behind schedule.
Objective 3 Improve the knowledge base of municipal decision makers and municipal energy users concerning energy management and energy efficiency technologies.	
Output 3.1 Improved knowledge base for the Energy Centre and local energy efficiency advice centres/ local networks	Ongoing training of Energy Centre staff is taking place. Conferences and training for the Regional Advice Centres has taken place (as part of 3.3 below), and is planned for 2004. These activities are significantly behind schedule according to the original workplan.
Output 3.2 Improved knowledge base for decision makers in municipalities	A training course – in the form of awareness raising for decision-makers (1/2 day training session) and a longer training course for people responsible for energy in municipalities – has been developed, and has been implemented with good success since mid-2003. To date over 300 people have participated in the project’s training activities. Analysis of evaluation forms appears to show a positive reception. The contribution of the training given to the project objectives is analysed below. The capacity building activities are significantly behind the schedule proposed in the original workplan.
Output 3.3 Increased capacity to identify, design, implement and manage energy efficiency projects at the local level.	

Mid-term Evaluation – UNDP-GEF Energy Efficiency project Hungary

44. On the basis of the experience of the training courses the training material is under continual development. The written material provides a broad and wide-ranging scope, and appears relevant to the target audience. The quality of the information is also highly rated by the participants based on returned evaluation forms.
45. Two types of training courses are regularly organised: one for the municipal mayors and political decision makers (half a day long) and the other one for the energy managers (two days professional course). The training course is organised as a seminar: the audience listens to the presentations and they have the opportunity to add some remarks and additional information after the presentation. There are no exercises for individual or small team work so the development of practical abilities may be limited. While the training courses are certainly valued by the participants, and they do serve to increase interest in energy saving and build capacities to investigate and implement energy saving projects in municipalities, there is currently no direct evidence that the training will serve to meet the project objectives. On the other hand there is an excellent correlation between the attendance at the training course and applications to the audit fund.

The training material developed mainly for energy managers includes theoretical and practical knowledge for their daily work. The trainers of the course for the decision-makers use selected chapters of the training material developed for the professional course.

Taking into consideration these facts two important changes are suggested.

- a) The training course should better focus on the development of the ability to analyse and solve energy related problems at the municipalities. For this reason practical exercises might be beneficial.
- b) The decision-makers do not need the same deep professional knowledge as provided on the 2 day course. The training course organised for them would therefore best be held separately from that aimed at the energy experts and focused mainly on awareness raising at a practical policy level.

Finally, it is the experience of the evaluators that training courses that are offered without cost are generally undervalued. While charging the real costs for the course might have a negative impact on attendance, we believe that at least some nominal charge should be made. There is good precedence for this (admittedly for a slightly different target audience) since MTEZ charges (at least) cost price for regular energy efficiency conferences, which appear to be well attended and in demand.

46. The information brochures prepared by the project appear to be aimed at a very dedicated and mostly technical audience. While future publications would benefit from being easier to read and more practical, it is hard to assess the readership and reactions of the target audiences from the discussions held during this evaluation and a review of the brochures. An evaluation of the readership of the brochures carried out by the project team would provide useful insights for tailoring and improving future editions.
47. The one-stop-shop webpage appears to be useful, but no assessment of readership can be made since there is currently no evaluation mechanism for the system. While it seems that there is an intention to monitor 'website hits' in the future, a simple registration system for those requesting information (ie. register to download) from the site would provide a much more useful indication of users and their opinions.
48. Stronger links between the monitoring, training and funding tasks could be developed if a municipal benchmarking system were developed. This could then form an important part of the training for energy managers, the selected benchmark could be useful for assessment of funding support, and would naturally form part of the monitoring tasks. Benchmarking is well established in some countries (eg. the UK).
49. Good co-operation has been developed during the first three years of the project with the municipalities, ESCOs, energy experts, regional energy advice centres, financing institutions, NGOs and governmental representatives.

Management arrangements

50. The Project Steering Committee has been established at the start of the project. It represents the Government, the executing agency, the implementing agency and the UNDP. The Steering Committee has meetings at least annually and provides the strategic direction of the project implementation. Their input into the project appears to be valued by the project manager, and appears to be working well.
51. In December 2001 the Project Board was established by approval of the Steering Committee as an acting body of the project to oversee project implementation and to monitor project results. In effect it appears to be a smaller version of the Steering Committee, making decision-making quicker and easier. The Project Board consists of the managing director of the Energy Centre, representatives of the UNDP and the National Director.
52. As the project document states, the project team “is fully integrated within the context of the Hungarian government efforts” and is “not a stand-alone orphan.” The senior members of the project team are the overall project manager, a financial mechanism manager (a position currently unfilled after departure of the former financial manager in mid-2003, and initially working just with the financial assistant), a training manager, and a monitoring and evaluation (M&E) manager. The position of project information officer originally described in the project document has been integrated into the work of the training team manager. The project manager manages the project on a day-to-day basis, working under the responsibility of the Programme Director of the Energy Centre. According to the Project Document, the task managers (training manager, financing mechanism manager, M&E manager) under the project manager also report to the Programme Director, and this was a cause of some difficulty in the first two years of the project. This ambiguity has been resolved in recent ‘Organisational and Operational Regulations’ (September 2003). These regulations are detailed and should mean that any further project management difficulties are quickly resolved.
53. The technical evaluation of the applications for the audit fund is progressing smoothly although this should accelerate. At the moment nearly 40% of the applications from 2003 have been evaluated. If the number of applications will continue to grow as is expected for 2004 the capacities for the technical and financial evaluation will be stretched to do this work thoroughly in the remaining time available. The evaluation process and the capacities should be taken under consideration.
54. The financial assistant is at present responsible for the work of the financing manager and consequently she seems to be overloaded. In spite of this case she appears to manage to arrange most tasks of the two functions. In order to ensure the safety of the financial management activities the hiring of the new financial manager is urgent. In the case that the number of applications for the audit fund will increase and applications start to arrive to the fund for feasibility studies the lack of financial manager may cause a bottleneck in the efficient operation of the funds. An intensive hiring process for a new financial manager is currently underway, and is to be completed during February 2004. While the appointment of a new financial manager will certainly increase project efficiency and effectiveness, it is not believed that the current lack of financial manager seriously jeopardises the attainment of the project objectives.
55. The staff of the project is appropriately experienced and appears motivated to achieve the objectives of the project. This motivation appears to be attributable to the positive management approach of the project manager.
56. Encouragingly, the representation of women in the project team is over 50%, including the project manager.
57. The communication between the different teams of the project is well organised. The level of cooperation of the teams in the implementation of the tasks also appears to be good. The information dissemination within the project team is going partly on the basis of the staff meetings and partly directly between the partners who collaborates. Staff meetings are held in every two weeks in order to evaluate the activities done and to organise the next task implementation.

Mid-term Evaluation – UNDP-GEF Energy Efficiency project Hungary

58. The communication with the Steering Committee, the Project Board, the management of the Energy Centre and UNDP/GEF is operating without any problems. The recommendations and suggestions of the stakeholders are regularly built in the development of the project.

Overall success

59. The project consist of several objectives: improved development of energy efficiency policy, increased awareness and improved co-ordination of energy efficiency programmes, development of energy efficiency projects in the public sector through support of audits, improved knowledge base of municipal decision makers and municipal energy experts concerning energy efficient technologies and energy management methods. Based on the information gathered in the interviews and the results of the activities completed to date positive progress is visible in achieving most of these objectives.
60. Sustainability of the project benefits and activities appears reasonably good. Activities during 2004 focus on this, and prospects look hopeful, especially since the project activities are so well integrated with other activities of the Energy Centre. The Energy Centre will also be responsible for managing the energy component of the European Community structural funds for the Environment and Infrastructure Operation Programme (KIOP). It is not yet clear how the audit support fund will be continued after the end of this project. It is possible that the government support (which was available in 2001 and 2002, but was stopped in 2003) will return, once the UNDP is no longer supporting these activities.
61. One of the main components of the project approach is to increase the participation of private capital in energy saving investments in the public sector. The project document estimates parallel financing of the order of 9 to 13 million USD (represented by 40 implemented projects, this means co-financing on a project by project basis of between 225 000 and 325 000 USD). Achieving this target through realized investment projects needs to be the primary focus of all activities if the project team is to stand any chance of achieving it.

An option to increase the chances of meeting energy efficiency, climate and investment targets by the end of the project (or at least have promising indications that they will be met) identified by the evaluators is to establish a 'fasttrack' for promising projects (various sizes, but probably larger ones bearing in mind the scale of the task). Some resources may need to be allocated to assist the selected projects through the entire pre-investment project cycle. In this way the project staff will see first-hand the difficulties in 'converting' audits to investments, and be able to adjust project activities, if necessary, to encourage other audits to follow through with investments. At the same time the project will start to have tangibles contributions to achievement of indicators and outcomes. These issues are discussed in more detail in paragraphs 62 to 69 below.

Financial instrument

62. In order to increase the number of energy audits and feasibility studies undertaken in the municipality sector a support fund has been established. A two-phase approach was envisioned, starting with an audit, and followed by a feasibility study. The fund scheme uses an innovative approach in which part of the subsidy for the feasibility study is only given if a project is realized within 2 years. The fund started to work properly later than originally planned. In the first year of operation (2002) only 2 applications were received.
63. In 2002 the main audit / feasibility funding offered was for a 40% grant (repayment) for the audit, followed by a 30% grant for the feasibility study, and an additional 20% of feasibility study costs on realisation of the project within 2-years. Following changes to the funding scheme for 2003, in which, for small projects, a maximum repayment of 80% of audit costs, and 60% of feasibility study costs was available, and an additional 20% of feasibility study costs repaid if the project was realised in 2 years, many more applications were received – 102 applications between mid-2003 and December. This revision of the funding support scheme appears to have worked from the point of view of applications. It is notable that 40 of the 102 applications received came from one region – this appears to be the result of particular efforts by one of the regional advice centres, and shows the potential importance of working though the regional centres. Most applications

Mid-term Evaluation – UNDP-GEF Energy Efficiency project Hungary

received were requesting the maximum grant available. Further analysis of the applications may yield additional insights, and is recommended. Analysis of the 102 applications is clearly an ongoing project-monitoring task, and well outside the remit or scope of this mid-term evaluation.

64. The conditions of the application system to the fund are reviewed each year on the basis of the experiences in the previous year. The new conditions for the year 2004 are currently under development.
65. The policy to give special support to smaller municipalities (or projects) needs careful consideration. On the one hand the smaller municipalities may have most need to an audit of their energy use, and may stand most to gain from the no-cost / low-cost options that an audit may show. On the other hand the UNDP/GEF project has a huge challenge of realising a significant number of investment projects resulting from the audits – this may be easier with bigger projects.
66. The role of feasibility studies appears to need clarification. As currently envisioned feasibility studies are the second stage in the process of developing investment projects. However, feasibility studies are generally only relevant for some (generally larger) energy efficiency investments (eg. complex fuel switching projects, new generation capacity, creation of a new district heating network, etc.). It is recommended that the link between audit and feasibility is removed, and the some incentive is put in place to encourage realisation of projects directly following the audit. In addition feasibility studies may in exceptional cases be started without first carrying out an audit
67. As mentioned earlier, it is the opinion of the evaluators that the funding of renewable energy projects under the energy efficiency funding scheme should be avoided unless clearly justified on energy efficiency grounds.
68. In the opinion of the evaluators that the target co funding of USD 9-13 million will not be met by the end of the project unless special measures are put in place, and even then, this target will be difficult to achieve in the light of significant delays in establishing the audit fund, and the worsening financial situation of municipalities. This problem is partly one of time (there are only two years left, and investments frequently take a long time to arrange and finalise) and partly one of access to financial resources. The evaluators believe that the issue of time is the main obstacle, with the question of access to financial resources being a secondary issue. The following recommendations are proposed:
 - a) *Fast-tracking proposals*: the evaluators believe that this would have a significant impact on the chances of realizing funded projects by the end of the UNDP/GEF project for the following reasons:
 - i. Potential projects with a clear and high probability of being successfully implemented can be selected and rapidly developed, meaning that investment is more likely within the project time limits.
 - ii. The UNDP/GEF project resources (of a technical, financial and, perhaps, influential nature) can be used to identify and overcome existing barriers standing between the audit and the investment. Technical support could be provided, for example, to prepare bankable proposals, tender documents, and funding applications. These resources would be well spent since the project team will gain insights into these (currently largely undefined) barriers, which will benefit all projects through the information, training and capacity building activities.
 - iii. Together with EU accession come significant funding opportunities for the development of infrastructure projects (including energy) in deprived areas, and targeted in particular at municipalities. This, along with other funding local and international funding opportunities (including Third Party Financing supported by business interests as well as the IFC), appears to show that it is not a lack funding for investments that are the main barrier (although this issue is certainly contributory), but ability and willingness to make use of these sources. The ‘incubation’ of carefully selected projects will make a significant contribution to fast-track the realisation of investment projects and meet funding targets by the end of the project.
 - b) *Shifting funding focus to larger municipalities*: large or small projects developed in the larger municipalities are more likely to be funded because they generally have more qualified staff (including full-time energy managers), better access to credit, and an overall better financial position. In order to meet the funding targets for the UNDP/GEF a selected number of these projects should be preferentially

Mid-term Evaluation – UNDP-GEF Energy Efficiency project Hungary

supported. This however needs to be carefully balanced with ongoing support to smaller municipalities in more deprived areas, otherwise there is a real risk that, although the project's financing and greenhouse gas targets might be met, this is achieved in an unsustainable way (ie. without overcoming the barriers). In a very real sense it may be argued that these larger municipalities might assess and implement energy saving projects with or without the UNDP/GEF support.

- c) *Delinking audits from feasibility studies:* in particular for small projects, energy audits are frequently sufficient for investment planning to be made, and feasibility studies are not required in these cases. This would allow for projects to be developed through to investment more rapidly (otherwise the scenario of energy audits in 2004 and feasibility studies in 2005, leaving no time for preparation of the investment, is a real possibility).
 - d) *Energy audits for small municipalities to include bankable proposal / financing scheme:* If energy audits completed with UNDP/GEF support were required to include a bankable proposal or proposed financing scheme, this would help municipalities to make loan applications or initiate investments immediately following completion of the audits.
 - e) *Increasing incentives for project realisation:* The currently proposed audit funding scheme does not provided a very strong incentive for municipalities to take projects forward to investment and realisation – currently, for small projects a maximum repayment of 80% of audit costs, and 60% of feasibility study costs was available, and an additional 20% of feasibility study costs repaid if the project was realised in 2 years. For the audits, the following scheme (or something similar based on the more extensive local knowledge and experiences of the project team) might be more effective:
 - i. *Small projects:*
 - Audits: 20% payback of audit expenses, followed by 60% on realisation of the main audit recommendations
 - Feasibility studies: 20% payback of expenses, followed by 40% on successful realisation.
 - ii. *Larger projects:*
 - Audits: Payback of 10% of audit expenses, followed by 30% on successful realisation of the main recommendations
 - Feasibility studies: 10% payback of feasibility study expenses, followed by 30% on successful realisation of the project.
69. The interviewed municipality representatives expressed the need for the sustainability of the support system for the audits and the feasibility studies. There are not yet any mechanisms identified to support the system after the end of the project, although activities on business development planned for 2004 will attempt to answer these questions. It is interesting to note that the government support for audits came to an end at about the same time as the UNDP / GEF support got underway. It could not be ascertained whether there is a link (ie. that the local support has been withdrawn *because of* the existence of the UNDP / GEF support, but this does seem possible – in this case it can be expected to be reinstated once the project comes to an end. This however is speculation, but deserves attention during implementation of activities under Output 1.6 (Sustainable development of the project).

D. UNDP partnership strategy

Partnership with key stakeholders

70. The UNDP is principally working with the Energy Centre as the implementing agency. The Energy Centre is very well placed to influence the achievement of the project outcomes. The Ministry of Economy and the Ministry of Environment own the Energy Centre, and co-operation through the centre, as well as in the Steering Committee appears effective.
71. In project implementation the approach of working through regional advice centres appears to be excellent, and is an effective way for the Energy Centre to reach the smaller and remote municipalities.

Synergy with other activities

72. The project has strong connections to the other national level energy efficiency programmes and projects managed by the Energy Centre, including the National Energy Saving Programme (NEP), Phare Energy Efficiency Co-financing Scheme, and the Energy Efficiency Programme (former “German Coal Aid”). The synergy of the different programmes is good. The financial instrument set up in the frame of the project seems to be a useful tool for generating new Energy Efficiency projects which are fit for the requirements to the national level investment programmes, although, without any realised investments to date, this is largely untested.
73. The monitoring team is actively involved into the monitoring and evaluation of the NEP and the former Széchenyi Plan. Good collaboration has been developed between the two groups within the Energy Centre.
74. The World Bank and IFC activities on Energy Efficiency are entirely consistent with that of the UNDP. While close co-operation took place in early years, this has diminished somewhat recently. There does not appear to be a need to revive this co-operation since the two programmes fit together well in any case (the ESCOs supported through IFC activities are (potentially) key service providers to the municipal sector).

E. UNDP common rating system

75. The evaluators has attempted to make use of the UNDP common rating system. Evaluation of the status of objectives is based on subjective assessments, since quantifiable indicators were not given in the project document
76. Outcome 1: Reduced greenhouse gas emissions in Hungary by improvements in the efficiency of energy use in the public sector (GEF Development Goal)

- Positive Change
 Negative Change
 Unchanged

77. Outcome 2: Improved capacity of national and local authorities, public institutions and private sector to plan and implement integrated approaches to energy development (UNDP SRF)

- Positive Change
 Negative Change
 Unchanged

Mid-term Evaluation – UNDP-GEF Energy Efficiency project Hungary

78. Objective 1. Improve the development of energy efficiency policy, increase awareness, and improve coordination of energy efficiency programmes

- No (not achieved)
- Partial (only if two-thirds or more of a quantitative target is achieved)
- Yes (achieved)

79. Objective 2. The identification, development, and financing of energy efficiency projects in Hungarian municipalities/ municipal district heating systems.

- No (not achieved)
- Partial (only if two-thirds or more of a quantitative target is achieved)
- Yes (achieved)

80. Objective 3. Improve the knowledge base of municipal decision makers and municipal energy users concerning energy management and energy efficiency technologies.

- No (not achieved)
- Partial (only if two-thirds or more of a quantitative target is achieved)
- Yes (achieved)

81. Rating sustainability: The rating system assesses the degree to which progress towards achieving the outcome appears to the evaluator to be sustainable, as follows:

- Sustainable (determined by evidence of local ownership of outcome and systems/institutions in place to carry forward progress in the outcome or cement gains)
- Unsustainable (determined by lack of ownership of outcome and systems/institutions in place to carry forward progress or cement gains)
- Too soon to tell or cannot be determined

82. Rating relevance: The rating system assesses the degree to which an outcome is relevant given a country's development situation and needs. Essentially, it tests the development hypothesis. The rating system is as follows:

- Yes (relevant)
- Somewhat (evidence is found that the outcome is somewhat relevant but perhaps not the best one for addressing the development situation per se)
- No (not relevant)

83. Rating cost-effectiveness: The rating system assesses the degree to which the progress towards—or the achievement of—the outcome is cost-effective, given the financial resources and time invested in the outcome and the degree of change actually achieved, as follows:

- Yes (cost-effective)
- Somewhat (evidence is found that the outcome is somewhat cost-effective but could have been more so; evaluators should provide qualitative analysis of how)
- No (not cost-effective)

III. Recommendations

It is the opinion of the evaluators that this project is highly relevant, is currently being well executed, by a competent team. The project, if climate, efficiency and investment targets can be met promises to have a very positive impact in Hungary. Based on the analysis given in section II, the following recommendations can be made:

84. Project indicators, which can easily be tracked and measured should be developed, and placed within the project-planning matrix. The project team can then use these indicators to monitor progress towards achieving the desired project outcomes. Currently it is somewhat hard to assess whether the project is achieving what it needs to achieve. The indicator of 300 000 tonnes of carbon is rather abstract to be used as a project management tool.
85. The monitoring of the project implementation and progress to achieving the overall outcomes and the sustainability of the implementation mechanisms, should be strengthened. This is an ongoing task, best carried out by the monitoring team. Visual references such as a ‘thermometer’ showing progress to achieving technical, climate and financial targets, updated regularly, may serve to focus the attention of the entire project team on the challenge faced!
86. The information brochures prepared by the project appear to be aimed at a very dedicated and mostly technical audience. While future publications may benefit from being easier to read, and more practical, it is hard to know from initial impressions. An evaluation of the readership of the brochures would provide useful insights for tailoring future editions. See paragraph 45 for details of specific suggestions related to training, including increasing practical content, and nominal charging for the two-day training sessions.
87. The one-stop-shop webpage appears as if it will be useful (although most information is still currently lacking). The development of the content of the database should be strengthened. At the moment no assessment of use can be made since there is currently no mechanism for monitoring usage. A simple registration system for those requesting information (ie. register to download) from the site would provide a useful and cost effective indication of users and their opinions / interests.
88. Stronger links between the monitoring, training and funding tasks could be developed if a municipal benchmarking system were developed. This could then form an important part of the training for energy managers, the selected benchmark could be useful for assessment of funding support, and would naturally form part of the monitoring tasks. Benchmarking is well established in some countries (eg. the UK)
89. It is the opinion of the reviewers that renewable energy, while perhaps indirectly relevant, is a distraction from the task of this project, and could easily (particularly regarding the ‘feasibility studies’ supported by the funding scheme, but also in, for example, the training course) distract attention from the task of this project. While the evaluators do not wish to be dogmatic, activities supporting renewable energy should be very carefully reviewed, and not pursued, unless there is a convincing argument to the contrary.
90. If demand for the audit and feasibility study funding continues to grow as indicated by the interest at the end of 2003, then additional capacity will be needed to process applications swiftly.
91. Achieving the greenhouse gas, energy efficiency and investment targets described in the project document is a significant challenge. Realizing investment projects needs to be the primary focus of all activities in the coming two years if the project team is to stand any chance of achieving 40 audited projects leading to investments and 9-13 million USD in co-financing. The following specific recommendations are made (described in detail in paragraph 68, and below): a) Fast-tracking proposals, b) Shifting some funding focus to larger municipalities, c) Delinking audits from feasibility studies d) Energy audits for small municipalities to include bankable proposal / financing scheme, and e) Increasing incentives for project realisation through the funding scheme

Mid-term Evaluation – UNDP-GEF Energy Efficiency project Hungary

92. A ‘fasttrack’ / project incubator for promising projects should be established. Some resources may be needed to assist the selected projects through the entire pre-investment project cycle. In this way the project staff will see first-hand the difficulties in ‘converting’ audits to investments, and be able to adjust project activities, if necessary, to encourage other audits to follow through with investments. At the same time the project will start to have tangibles contributions to achievement of indicators and outcomes. See paragraph 68 for additional details.
93. The policy to give special support to smaller municipalities (or projects) needs careful consideration. On the one hand the smaller municipalities may have most need to an audit of their energy use, and may stand most to gain from the no-cost / low-cost options that an audit may show. On the other hand the UNDP/GEF project has a huge challenge of realising a significant number of investment projects resulting from the audits – this may be easier with bigger projects. It may be wiser to concentrate on quality not quantity in project applications.
94. The role of feasibility studies appears to need clarification. As currently envisioned feasibility studies are the second stage in the process of developing investment projects. However, feasibility studies are generally only relevant for some (generally larger) energy efficiency investments (eg. complex fuel switching projects, new generation capacity, creation of a new district heating network, etc.). It is recommended that the link between audit and feasibility is removed, and the some incentive is put in place to encourage realisation of projects directly following the audit.
95. The funding of renewable energy projects (projects in which renewable energy is the major part) under the energy efficiency funding scheme should be avoided unless clearly justified on energy efficiency grounds.

IV. Lessons Learned

96. Time and project experiences have shown that the project was initially well designed and highly relevant to the needs of Hungarian municipalities, and it has remained so. The approach being followed is one that, with some small contextual changes, could find application in other countries.
97. A project of this complexity is sure to encounter difficulties no-matter how well designed. Even the best design cannot avoid or anticipate all difficulties. The project management need to keep listening to those involved, stakeholders and beneficiaries and be prepared to adjust and adapt approaches as necessary. Keeping dialogue open, and putting in place feedback mechanisms, as has been demonstrated by the new project manager can serve to overcome difficulties and build teamwork and commitment. The project manager should be encouraged to keep these communication channels open even as the work to deliver of the climate, efficiency and investment targets becomes a race against time. The project needs to have the goals in sight but strive to maintain open lines of communication.
98. The project has strong connections to the other national level energy efficiency programmes and projects managed by the Energy Centre, including the National Energy Saving Programme (NEP), Phare Energy Efficiency Co-financing Scheme, and the Energy Efficiency Programme (former “German Coal Aid”). The synergy of the different programmes is good. The Energy Centre will also be responsible for managing the energy component of the European Community structural funds for the Environment and Infrastructure Operation Programme (KIOP). The synergy of the different programmes and projects is expected a strong contribution to the sustainability of the outcomes of the project.
99. Good co-operation has been developed during the first three years of the project with the municipalities, ESCOs, energy experts, regional energy advice centres, financing institutions, NGOs and governmental representatives. The partners of the project evaluated very positively the progress of the project implementation. On the other hand due to the not sophisticated enough indicator system the quantitative evaluation of the project seems to be difficult.

Mid-term Evaluation – UNDP-GEF Energy Efficiency project Hungary

100. The balance between the UNDP project being autonomous and being integrated part of the Energy Centre is nearly optimal, and a good basis for continues sustainability of the work after the end of the project. Many of the outputs of the UNDP project will expected to be integral part of the daily activities of the Energy Centre after the UNDP project is over. This is a good example for other countries and projects.

Appendix 1: Terms of Reference

TERMS OF REFERENCE FOR EXTERNAL EVALUATION OF CLIMATE CHANGE/ENERGY EFFICIENCY PROJECT

for Hungary: Public Sector Energy Efficiency Programme (HUN/00/004 and HUN/00/G31)

1. BACKGROUND

UNDP strives to promote sustainable human development. The sustainability of all development efforts depends on the preservation of the local and global environment. The UNDP support for environmental protection also focuses on energy efficiency.

The full fledged project titled Hungary: Public Sector Energy Efficiency Programme is to help the country to improve the energy efficiency of its public sector, thus mitigating the emissions of greenhouse gases, mainly their CO₂ component. The project seeks to remove the barriers for a sustained market of energy efficiency services and promote the implementation of energy efficiency projects in municipalities, hospitals, other public institutions and commercial sector buildings.

The development objective of the project is to overcome barriers to increased energy efficiency and to the associated reductions in GHG emissions. The major barriers include:

- The level of greenhouse-gas emissions associated with the generation and use of energy in Hungary, which is exacerbated by the low level of energy efficiency in the economy, and more specifically the low level of energy efficiency in municipalities.
- Municipalities face three acute problems relating to energy use: inefficient district heating systems; the poor energy efficiency of institutional buildings; and outdated and inefficient street lighting, for which municipalities pay the costs, but for which the responsibility for maintenance and the ownership lies with the electricity distribution companies. Concerning institutional buildings, the municipal sector is very heterogeneous, with many different levels of energy efficiency awareness among different communities.
- In addition to the lack of demand for energy efficiency services from the public sector in Hungary, there is also a barrier of lack of supply of such services.
- Currently there is neither a centralised information point relating to the terms and conditions of the different credit facilities, nor sufficient coordination between the different funds to allow for 'one-stop shopping' for municipalities (or indeed all energy users) who are searching for financing for an energy efficiency investment project.

The project is proposed to consist of three components:

- Improved development of energy efficiency policy, increased awareness, and improved coordination of energy efficiency programmes.
- The identification, development, and financing of energy efficiency projects in Hungarian municipalities/ municipal district heating systems.

Mid-term Evaluation – UNDP-GEF Energy Efficiency project Hungary

- Improved knowledge base of municipal decision makers and municipal energy users concerning energy management and energy efficiency technologies.

2. PURPOSE OF THE EVALUATION

Considering the importance of climate change issues and the high responsibility attached to the project as funded by the Global Environment Facility (GEF), UNDP has decided to conduct a mid-term evaluation in order to contribute to effective project implementation and ensuring proper documentation of lessons learned.

The evaluation should focus on the following issues:

- **Relevance** of the project to:
 - a) *Development priorities* at the local and national level;
 - b) *Target groups* - identification of their specific needs relative to their status and responsibilities;
 - c) *Direct beneficiaries* - Government, local authorities, public services, utilities, residents;
 - d) *UNDP mission to promote SHD* by assisting the country to build its capacities in the focal area of environmental protection and management.
- **Performance** - look at the progress that has been/is being made by the project relative to the achievement of its immediate objectives, outputs and activities
 - a) *Effectiveness* - extent to which the project achieves its immediate objectives and produces the desired outcomes; cost effectiveness and success rate of transforming inputs into outputs;
 - b) *Efficiency* - optimal transformation of inputs and outputs, including an assessment of the different implementation modalities;
 - c) *Timeliness* of inputs and results,
- **Management arrangements** focused on project implementation
 - a) *General implementation and management* - assess the project in terms of quality and timeliness of inputs and activities, with particular reference to financial and human resources management
 - b) *Management arrangements* - evaluate the adequacy of the project, including the effectiveness of the Project Steering Committee and the Project Board.
 - c) *Equal participation of men and women* – assess indicators developed under the project to measure this equal participation.
- **Overall success** of the project with regard to the following criteria:
 - a) *Impact* - assessment of the results with reference to the development objectives of the projects;
 - b) *Sustainability* - assessment of the prospects for potential replication of the project positive results after termination of UNDP support; *static sustainability* which refers to the continuous flow of the same benefits to the same target groups; *dynamic sustainability* use and/or adaptation of the projects' results by original target groups and/or other target groups;
 - c) *Contribution to capacity development* - extent to which the project has empowered target groups and have made possible for the government and local institutions (municipalities) to use the positive experiences; ownership of projects' results;

- **Synergy** with other similar projects, funded by the government or other donors.
- Evaluate the efficiency, relevance and sustainability of the **financial instrument** set up within the project, including its potential impact on leveraging further cofinancing
- **Recommendations** and lessons learned for further implementation for achieving project objectives including future support of UNDP and/or the Government.

3. COMPOSITION OF THE EVALUATION MISSION

The evaluation mission will be undertaken by External International Consultant and External National Consultant (See ANNEX I for terms of reference).

The consultants will be identified by UNDP in consultation with the Project. They will be responsible for preparing the evaluation report and its completion in accordance with UNDP guidelines.

4. METHOD AND EXPECTED OUTPUTS

The evaluation will take place mainly in the field. The evaluators should work closely with the government counterparts, the project management, the Energy Centre, the Regional Advice Centres, the sub-contractors and direct beneficiaries.

The evaluator should consult all relevant sources of information, such as the project document, project reports, project budgets, progress reports, project files, and any other material that they may consider useful.

The evaluator should also use interviews as a means of collecting data on the relevance, performance and success of the project.

Although the mission should feel free to discuss with the authorities concerned, all matters relevant to its assignment, it is not authorized to make any commitment on behalf of UNDP or GEF or the project management.

The output of the mission will be an **Evaluation Report**. The format and length will be determined by discussion between the Evaluation Team and UNDP Bratislava.

5. DURATION OF THE EVALUATION

The total duration of the evaluation will be 9 days. The start date of the evaluation mission will be **26th January 2004**, according to the following plan:

Prior to fielding of the mission (1 day):

Acquaintance with the project document and other relevant materials with information about the project;

Mid-term Evaluation – UNDP-GEF Energy Efficiency project Hungary

Familiarization with Hungarian energy efficiency legislation and overall policy on the decentralization and local self-governance;
Detailed mission programme preparation in cooperation with the Energy Centre. Energy Centre will organize the schedule of the mission and will provide transportation to the consultants, except for the transport to/from the airport;

During the mission:

- **2 days:**

- Briefing with UNDP;

- Visit to the office of the Executing Agency and Implementing Agency in Budapest and briefing with the project management and project staff;

- Joint review of all available materials

- Interviews with national policy makers at the Ministry of Economic Affairs, the Ministry for Environment, the Ministry of Interior and with management of the Energy Centre;

- **2 days**

- Interviews with key beneficiaries and stakeholders, including representatives of Hungarian municipalities, energy service companies who undertake the energy audits, NGOs (including local energy advice centers), members of Consultative Forum which in addition to above include the Hungarian Energy Office, the IFIs (World Bank, EBRD, IFC), European Commission Delegation (Phare Programme), etc.

- Visit to the Regional Advice Centres (RACs) selected.

- **2 days:**

- Additional information review

- Structuring and development of a draft report

- Debriefing with UNDP via teleconference

After the field mission (2 days):*

- Completing of the draft report

- Presentation of draft report for comments and suggestions

- Presentation of final evaluation report

6. INFORMATION PROVIDED TO THE MISSION BY

UNDP/Energy Centre - project document, project reports, progress report, draft of PIR report, annual project reports, TPR, Project Board and Steering Committee meetings minutes; revised budgets;

Energy Centre - national development priorities, national energy strategy, Energy and Energy Efficiency Act, Second National Communication on UNFCCC, National Climate Change Action Plan, etc.

* Evaluation Team should submit the final report within 1 week after evaluation mission will take place

ANNEX I

TERMS OF REFERENCE FOR THE EVALUATION TEAM

External International Consultant

Objective of the Consultancy

The overall objective of the consultancy consists in conducting an external evaluation of UNDP energy efficiency project, focusing on the following issues:

- Relevance
- Performance
- Management arrangements
- Overall success
- Synergy
- Financial instrument
- Recommendations

Scope of Work

The External International Consultant will be designated by UNDP in consultation with the Project Board members. Her/His main responsibility will be:

- To coordinate the work of the evaluation team
- To participate in the briefing meetings with UNDP
- To participate on the evaluation of the project HUN/00/004 and HUN/00/G31 “Public Sector Energy Efficiency Programme”;
- To contribute to the draft Evaluation Report
- To finalise the final Evaluation Report following debriefing with UNDP;

Expected Outputs

⇒ Evaluation Report

Qualifications Required

- MSc in energy/economics sciences
- Extensive experience in facilitation of negotiation process and team building
- At least 8 years experience in managing/developing energy efficiency/climate change projects in CEE and with developing financial schemes
- Extensive experience in the field of energy and climate change
- Experience with partnership strategies
- Conceptual thinking and analytical skills
- Experience in conducting evaluation missions would be an advantage
- Good knowledge of the Hungarian energy and energy efficiency legislation and policy would be an advantage
- Fluency in English
- Experience in managing/implementing donor supported projects will be an asset
- Knowledge of Hungarian will be an asset
- PC skills

Duration of the Evaluation

The total duration of the evaluation will be 9 days, starting the evaluation mission on 26th January, 2004.

External National Consultant

Principal responsibilities

Objective of the Consultancy

The overall objective of the consultancy consists in conducting an external evaluation of UNDP energy efficiency project, focusing on the following issues:

- Relevance
- Performance
- Management arrangements
- Overall success
- Synergy
- Financial instrument
- Recommendations

Scope of Work

The external national consultant will be identified by UNDP in consultation with the Project Board members. Her/His main responsibility will be:

- To participate in the briefing meetings with UNDP;
- To participate on the evaluation of the project HUN/00/004 and HUN/00/G31 “Public Sector Energy Efficiency Programme”;
- To contribute to the preparation of the draft Evaluation Report
- To support international consultant in preparation of the final Evaluation Report following a debriefing meeting with UNDP;

Expected Outputs

⇒ Evaluation Report

Qualifications Required

- MSc in social/economics sciences
- Extensive experience in facilitation of negotiation process and team building
- At least 8 years experience in managing/developing energy efficiency/climate change projects in CEE and with developing financial schemes
- Extensive experience in the field of energy and climate change
- Experience with partnership strategies
- Conceptual thinking and analytical skills
- Experience in conducting evaluation missions would be an advantage
- Fluency in English
- Experience in managing/implementing donor supported projects will be an asset
- PC skills

Duration of the Evaluation

The total duration of the evaluation will be 9 days, starting the evaluation mission on 26th January, 2004.

Appendix 2: List of interviews

Ms Antonia BERES	UNDP/GEF Project manager
Mr István TOKÉS	UNDP/GEF Regional representative
Ms Andrea CIMBOROVA	GEF Associate, Country Support Unit, UNDP Regional Support Centre
Dr. László ELEK	Project manager, energy policy analysis, Energy Centre
Mr. Kálmán KOSTENSZKY	Project manager, Energy Centre PHARE Co-financing EE Scheme
Mr. Tibor BERTÓK	M&E manager, UNDP/GEF project, Energy Centre
Mr. Károly MEZEI	Training manager, UNDP/GEF project, Energy Centre
Dr. Miklós POÓS	Head of Department, Ministry of Economy and Transport, member of the Steering Committee, National Project Director
Dr. Ágnes HEGEDŰS	Expert, member of the Steering Committee
Mr. László DELY	Municipal energy manager, Tata
Dr. Albin ZSEBIK	Head of Department, Budapest University of Technology and Economics
Mr. Lajos MAGASITZ	Mayor, Szigetbecse
Mr. Károly LENGYEL	Federation of Technical and Scientific Societies (MTESZ), Esztergom
Mr. István VONCZEM	Federation of Technical and Scientific Societies (MTESZ), Vác
Dr. Tibor FARAGÓ	Ministry of Environment, member of the Steering Committee
Mr. Imre KIRÁLY	Training assistant, UNDP/GEF project, Energy Centre
Ms. Éva WEÖRES	OTP Bank
Mr. István KOVACSICS	National consultant
Mr. Géza BAKOSS	National consultant
Mr. László BÁNHIDI	Hungarian Chamber of Engineers
Mr. Zoltán MAGYAR	Hungarian Chamber of Engineers
Mr. György SZ.TÓTH	Training assistant, UNDP/GEF project, Energy Centre
Mr. Péter NAGY	Municipal energy manager, Nyíregyháza
Mr. Csongor CZIPF	Cothec (ESCO company)
Mr. János PRUGBERGER	Cothec (ESCO company)
Mr. László HANGONYI	Mayor, Hangony
Mr. Barnabás VÉCSI	Federation of Technical and Scientific Societies (MTESZ), Veszprém
Mr. Tibor KLUDOVÁČZ	IFC Bank
Mr. Attila POPOVICS	Database manager, UNDP/GEF project, Energy Centre
Ms. Györgyi ARANYI	Financing assistant, UNDP/GEF project, Energy Centre
Dr. László MOLNÁR	Managing Director, Energy Centre

Appendix 3: List of Main Documentation Reviewed

Policy documents:

- Energy Saving Strategy and Action Programme
- HUNGARY EE strategies, Updated July 2000
- Second National Communication on the Implementation of UNFCCC

Project appraisal:

- Project document
- PROJECT APPRAISAL COMMITTEE MEETING, New York, 13 October 2000
- Local Project Appraisal Committee meeting, 19 September 2000

Minutes:

- Board meeting_presentation, 13 Sept 2001
- Board Meeting_Minutes, 13 September 2001
- Board Meeting_Minutes, 30th May 2002
- Board Meeting_MINUTES, 30th May 2002
- Steering Committee_Minutes, 4 December 2001
- Note for the File, March 21, 2001
- NOTE FOR THE FILE, 12 February 2001
- Minutes of meeting, 11 June 2001

Workplans & Reports:

- First work programme, Dec. 2000
- Workplan & Report 1 Q 2001
- Workplan & Report 2 Q 2001
- Workplan & Report 3 Q 2001
- Workplan & Report 4 Q 2001
- Workplan & Report 1 Q 2002
- Workplan & Report 2 Q 2002
- Workplan & Report 2 Q 2002 - missing
- Workplan & Report 4 Q 2002
- WP_1. Quarter, 2003
- APR_2002
- APR_2001
- PIR 2002
- PIR 2003

OTHER:

- Co-operation with the banks -audit fund - evaluation of tenders
- UNDP/GEF financial support fund, operational plan, draft
- External Review of the UNDP, August 2, 2002
- Audit fund needs analysis (QR 3Q 2001)
- Training needs analysis and draft training strategy (QR 3Q 2001)
- Information need analysis and draft strategy on information dissemination and outreach - Analysis of the present situation of municipal energy managers (QR 3Q 2001)
- Requirements for potential partners prepared in 2003
- RACs evaluation and 2004 agreement