GEF

Global Environment Facility

1818 H Street, NW
Washington, DC 20433 USA
Tel: 202.473.0508
Fax: 202.522.3240/3245
Internet: www.gefweb.org

August 21, 2001

Dear Council Member:

I am writing to notify you that we have today posted in the GEF's website at www.gefweb.org, a medium-sized project proposal from World Bank entitled *Hungary: Energy Efficiency Co-Financing Program 2 (HEECP2).* The GEF will contribute $700,000 towards a total cost of $93,900,000.

This medium-sized project builds upon the first IFC/GEF Energy Efficiency Co-Financing Project in Hungary, which achieved early results and demonstrated the effectiveness of the contingent financing model (commercial loan guarantees). IFC is now requesting additional funds for administration and technical assistance to support a significant expansion of the Program. The IFC will invest up to $12 million, and local financial institutions up to $76.55 million, based on $4.25 million in GEF contingent finance (guarantees) still available from the first project. This medium-sized project thus facilitates substantial scale up and mainstreaming from the success of the first project.

The project proposal is being posted for your information. We would welcome any comments you may wish to provide by September 12, 2001, in accordance with the procedures approved by the Council.

If you do not have access to the Web, you may request the local field office of UNDP or the World Bank to download the document for you. Alternatively, you may request a copy of the document from the Secretariat. If you make such a request, please confirm for us your current mailing address.

Sincerely,

Mohamed. T. El-Ashry
Chief Executive Officer and Chairman

cc: Alternates, Implementing Agencies, STAP

THE WORLD BANK/IFC/M.I.G.A.

OFFICE MEMORANDUM

DATE: July 27, 2001

TO: Ken King, Assistant CEO, GEFSEC
Att.: GEF PROGRAM COORDINATION

FROM: Lars Vidaeus, GEF Executive Coordinator

EXTENSION: 3-4188

SUBJECT: ***Hungary: Hungary Energy Efficiency Co-financing Program 2 [HEECP2]***
GEF Medium Size Project (MSP) for CEO Endorsement

1. Please find attached the electronic file for the revised MSP Brief for the above mentioned project which is ready for circulation from the GEF CEO to Council. In accordance with GEF Operational guidance for approval of MSPs, we look forward to receiving CEO decision/approval by August 17, 2001. The revised project brief incorporates GEFSEC and bilateral comments as follows:

   a. UNDP comment: *"From a technical point of view, we have no comments on this proposal. However, we ask that the WB make an effort to coordinate this project with the UNDP-GEF program, as the WB can lend to ESCOs but not municipalities while we can cost-share audits and feasibility studies for municipalities but not ESCOs."*

   Response/Modification: Based on the operational experience of HEECP such coordination is best achieved by cooperation at the country management level and through the HEECP2 Advisory Committee. This will be pursued during implementation of the project (see page 9 of MSP Brief).

   b. Incremental Costs Analysis (in response to comments from GEF Secretariat): A scenario approach is presented to reflect the incremental costs incurred to the GEF under three cases (best, medium, worst), which cover the spectrum of possible outcomes of the energy efficiency guarantee investments (see incremental cost matrix, page 23, and narrative analysis, pages 20-22).

2. In accordance with the nature of this project as an extension of a full-scale GEF pilot project, coupled with the leveraged IFC investment, plus the expanded TA and project implementation program to be funded by this MSP, the *World Bank's requested implementation fee for this project will be $240,000*. Because the full $4.25 million of guarantee funds provided in the original HEECP GEF grant

remain uncalled due to the excellent performance of the HEECP loan portfolio, the scope of the proposed MSP project requires the continued management of these GEF guarantee funds as well. It should be noted that IFC has leveraged its own management support for implementing both the additional $12 million guarantee facility investment as well as the $400,000 of IFC trust fund support for the TA programs.

3. Please send us a copy of your out-going letter to Council for our records.

Many thanks.

cc: Messrs./Mmes. L. Boorstin, D. Younger, G. Schramm, D. Papathanasiou, A. Roszsa, S. Sullivan, S. Balasubramanian, R. Khanna, R. Laukkanen, R. Hosier (UNDP), ENVGC ISC, Regional Files

HEECP2 Supervisory Budget

Definitions

The HEECP2 Supervisory Budget reflects the costs associated with IFC fulfilling its role as the executing agent on behalf of the World Bank Group in the supervision of the HEECP2 project implementation. This role consists of:

1. oversight and management of the local implementation team in Hungary, whose work in implementing the project on the ground is supported by the GEF grant;
2. coordination of the GEF project implementation with the IFC investment department in its execution of the IFC's $12 million investment in the pooled HEECP2 guarantee facility of $16 million;
3. coordination of the combined technical assistance funds leveraged from the IFC Trust Funds; and
4. supervision of the $4.95 million in GEF funds expended and put at risk in this program over the next four years, consistent with IFC's fiduciary responsibilities as executing agent for the GEF.

By contrast, the local implementation team and technical assistance consultants (who together directly implement the project as described in the MSP proposal) are supported directly through a combination of the GEF MSP grant, IFC Trust Funds, and fees generated by the IFC investment department through the guarantee product marketed on commercial terms to private sector Hungarian financial institutions.

1. SUPERVISION PLAN

The supervisory budget is based on a four year program implementation period plus a final year transition period during which residual project approvals will be executed under the Guarantee Facility Agreements with Hungarian financial institutions, and the program evaluation will be completed. The supervisory activities are scaled to reflect the complexity of the activity, involving the implementation of:

- a technical assistance program
- the marketing, oversight, due diligence and appraisal of the portfolio of projects administered by the (up to) ten participating financial intermediaries
- supervision of a monitoring and evaluation program

2. SUPERVISION BUDGET

Year 1:		
Project Supervision*	12 staff weeks	$51,300
Travel	3 trips	$20,700
Year 2:		
Project Supervision	8 staff weeks	$36,500
Travel	2 trips	$13,000
Year 3:		
Project Supervision	7 staff weeks	$34,200
Travel	1 trip	$7,000
Year 4:		
Project Supervision	7 staff weeks	$36,600
Travel	1 trip	$7,000
Year 5:		
Project Supervision	4.75 staff weeks	$26.700
Travel	1 trip	$7,000

3. TOTAL PROJECT SUPERVISION COSTS: $240,000

* Project Supervision costs assume 8% annual cost increase

Global Environment Facility (GEF)

H U N G A R Y

Energy Efficiency Co-Financing Program 2 (HEECP2)

GEF Medium-Sized Project

PROJECT BRIEF

July 2001

TABLE OF CONTENTS

CURRENCY

All figures are listed in US dollars

(1 $US=0.0038 HUF)

LIST OF ABBREVIATIONS AND ACRONYMS

BAU	Business As Usual
CAS	World Bank Country Assistance Strategy
EBRD	European Bank for Reconstruction and Development
EC PHARE	European Commission's Poland and Hungary Assistance for the Restructuring of the Economy
EE	Energy Efficiency
EPU	Environmental Projects Unit
ES	Energy Savings
ESCO	Energy Services Company
EU	European Union
FI	Financial Institution
GDP	Gross Domestic Product
GEF	Global Environment Facility
GFA	Guarantee Facility Agreement
GHG	Green-House Gases
HEECP	Hungary Energy Efficiency Co-financing Program
HEECP2	Hungary Energy Efficiency Co-financing Program 2
HUF	Hungarian Forint
IEA	International Energy Agency
IBRD	International Bank for Reconstruction and Development
MERP	Ministry for Environment and Regional Policy
NGO	Non Governmental Organization
OECD	Organization of Economic Cooperation and Development
SME	Small and Medium Size Enterprise
TA	Technical Assistance

PROJECT SUMMARY

PROJECT IDENTIFIERS	
1. *Project name:* Hungary Energy Efficiency Co-Financing Program 2	2. *GEF Implementing Agency:* International Finance Corporation / World Bank
3. *Country in which the project is being implemented:* Hungary	4. *Country eligibility:* Hungary ratified the United Nations Framework Convention on Climate Change on February 24, 1994
5. *GEF focal area:* Climate Change	6. *Operational program/short-term measure:* Operational Program 5 Removal of Barriers to Energy Efficiency and Energy Conservation
7. *Project linkage to national priorities, action plans, and programs:* The Program is expected to generate a range of environmental and economic benefits in Hungary related to the development of a new EE industry and a stream of subsequent EE project investments. Specifically, HEECP2 would: (i) build new and strengthen existing capacity in the EE and SME finance sectors; (ii) support the development of energy service companies ("ESCOs"); (iii) develop EE investment projects across all sectors; (iv) improve the competitiveness of the Hungarian economy by increasing the energy efficiency of its operations; and (v) improve the local, as well as the global, environment through reduced emissions of greenhouse gases and other conventional pollutants. As a result of the energy savings to be realized through HEECP2, the program is expected to contribute to: (i) reduction in capital costs for new power and transmission and distribution capacity; (ii) a decrease in the country's reliance on imported energy sources through the energy savings achieved; (iii) improvement in the residents' living standards; (iv) enhancement of some municipalities' ability to reallocate resources; (v) improved competitiveness of the SME sector; and (vi) an acceleration of Hungary's transition to EU standards in line with the country's planned accession to the EU.	
8. *GEF national operational focal point and date of country endorsement:* Ministry for Environment – May 2001	

PROJECT OBJECTIVES AND ACTIVITIES	
9. *Project rationale and objectives:* (i) Reduce Hungary's emissions of greenhouse gases (short-term measure) by improving energy efficiency for end-user applications (ii) Create local capacity to fund further energy efficiency projects and applications. (iii) Encourage the replication of the project elsewhere and raise public awareness about energy efficiency, as part of the country's climate change response strategy.	*Indicators:* (i) Reduction in greenhouse gas emissions relative to the "without project" scenario. (ii) Increase in projects financed through private financial institutions with a clear focus on energy efficiency improvements (iii) Increase in number of expressions of interest by clients and financial institutions for energy efficiency financing arrangements.
10. *Expected outcomes:* (i) Improvements in energy efficiency end-user applications	*Indicators:* (i) Increase in installments of energy efficient devices and adoption of energy efficient processes
11. *Project activities to achieve outcome:* (i) Provision of training to FIs for EE related deal structuring and financing (ii) Provision of training to ESCOs and EE related SME businesses (iii) Provision of guarantee facilities to FIs	*Indicators:* (i) Increased lending in number of projects, value per project (ii) Increased equity investment in ESCOs and EE businesses; higher number of EE applications for funding (iii) Increased volume and value of EE lending by Hungarian FIs.

12. *Estimated budget (in US$):*	
GEF	
Requested Financing (this proposal)	*700,000*
Existing financing (from HEECP guarantee funds)	4,250,000
International Co-financing	
IFC Trust Funds and other IFC	400,000
IFC Investment (in guarantees) up to	12,000,000
Local Co-financing (debt financing up to)	
Financial Institutions	76,550,000
*not including equity financing of individual projects estimated at 20%	**93,900,000**
Total (up to)	

INFORMATION ON INSTITUTION SUBMITTING PROJECT BRIEF

13. *Information on project proponent:*

The International Finance Corporation is the private sector lending arm of the World Bank Group. IFC is the largest source of multilateral finance for private investment projects in eligible GEF recipient countries.

The mission of IFC is to promote sustainable private sector investment as a way to reduce poverty and improve people's lives.

Address:

International Finance Corporation
2121 Pennsylvania Avenue
Washington, DC 20433
USA

14. *Information on proposed executing agency (if different from above):*

15. *Date of initial submission of project concept:*

Concept was approved and proposal was invited by the GEF Secretariat in February 2001.

INFORMATION TO BE COMPLETED BY IMPLEMENTING AGENCY

16. *Project identification number:* **505970**

17. *Implementing Agency contact person:*

Mr. Russell Sturm
Senior Projects Officer
Environmental Projects Unit
IFC
Rsturm@ifc.org
Tel: 1 202 458 9668
Fax: 1 202 974 4349

18. *Project linkage to Implementing Agency program(s):*

The World Bank Country Strategy: In October 1992, the World Bank's Executive Board adopted a new energy policy addressing energy efficiency and electric power. EE investments are considered by the Bank to be at the heart of its energy policy, with Bank activities being geared toward lending, advice and technical assistance to promote an enabling environment for EE projects. This emphasis was recently strengthened with the adoption of the Bank Group's environmental strategy for the energy sector.

The World Bank Country Assistance Strategy ("CAS") is to support Hungary's accession to the EU, in particular by helping to complete public sector reforms, strengthening institutions and markets in key EU-related sectors, enhance social cohesion and protect the environment. The Project directly supports the Bank's CAS, focusing on IFC's strength in building capacity in the commercial financial market and in the SME sector to enable commercial investment in energy efficiency across the Hungarian economy. Of note is the impact of the HEECP2 Project in enabling the energy efficiency upgrade of municipal facilities, including district heating and public buildings, exclusively through private third party investments made by ESCOs using financing from private FIs.

IFC's Country Strategy: IFC's strategy in Hungary is highly selective and focuses on projects that will foster the country's transition to a fully functioning market economy for eventual EU accession. IFC would consider supporting new technologies such as e-finance to strengthen the banks' position particularly in the SME sector. IFC would also be prepared to strengthen lesser developed areas of the financial sector, such as securitizations.

The proposed project is consistent with the IBRD and IFC strategies, as HEECP2 is needed to help overcome a number of market barriers to EE investments and is likely to provide important local, regional, national and global environmental benefits. Furthermore, the Project plays an important role in improving the competitiveness of Hungarian SMEs, supporting the viability of those enterprises and building the private sector's capacity to transform the Hungarian economy to a level of energy intensity consistent with the EU.

I. PROJECT DESCRIPTION

The project ("HEECP2") is a proposed co-financing facility that combines US$12 million from the IFC and US$4 million from previously committed funds from the GEF to provide partial guarantees for energy-efficiency investment related loans, initiated by participating Hungarian financial institutions ("FIs"). HEECP2 will expand an existing Global Environment Facility ("GEF")-funded and IFC-executed project known as the Hungary Energy-Efficiency Co-Finance Program ("HEECP"). HEECP was a US$5 million pilot project providing guarantees and technical assistance to support the financing of energy-efficiency ("EE") related projects. EE projects include, but are not limited to, investments in efficient lighting (in all sectors), building and district heating, boiler and building control systems, motors and industrial process improvements. HEECP2 involves a combined GEF-IFC guarantee facility pool of $16,000,000. In addition $250,000 in original HEECP pilot stage guarantee resources will remain in place as guarantees dedicated to higher-risk, small-scale “retail” financing for individual residential facilities.

Expansion of the GEF funded HEECP with IFC funds has been envisaged from the Program's inception, subject to the pilot's success. The conclusions from the recent GEF mid-term evaluation of HEECP indicate that the project is successful and that there would be an important role for the program to play through continued and expanded operations.

HEECP2 will build on the success of the HEECP pilot. The expansion of the guarantee program is expected to facilitate up to US$76 million in new EE financing. In addition, technical assistance ("TA") will be provided to FIs to assist them in evaluating EE projects, and to EE companies (Energy Services Companies, "ESCOs") and end-users to assist them in preparing their investment plans. This is expected to result in further secondary benefits, not directly related to capital financing, by enhancing the local capacity for EE project financing and technical competence.

A total of US$1.1 million in funds for program administration and TA will be provided by the IFC Trust Funds (US$0.4 million) and GEF (US$0.7 million). This latter financing component for administrative and TA funds is the object of this proposed Medium Sized Project.

A. Project rationale and objectives

HEECP2 builds on the accomplishments of the pilot project HEECP. Its aim is to replicate the basic components of HEECP, and to significantly expand co-financing activities based on the experience and success of the initial program. Remaining funds from HEECP will be combined with IFC's new funding commitment to provide guarantee facilities to local financial institutions. This arrangement will further leverage GEF's already committed funds and will result in a significantly wider and far-reaching pool of funds to finance energy efficiency projects in the country.

The project is eligible for GEF financing under Operational Program 5: Removal of Barriers to Energy Efficiency and Energy Conservation. Funds for this medium-sized project will be combined with additional grant-financing from IFC's Trust Funds to provide technical assistance in support of the co-financing program.

The technical assistance program is designed to support both FIs and EE/ESCO businesses and borrowers. This feature has made the program very attractive to FIs, particularly since most of them have not had extensive experience in the area of EE financing. The TA assignment's objective is to support the implementation of EE projects on several levels: (i) by supporting end-users in evaluating different technical alternatives for EE improvements and their implications; (ii) by supporting energy efficiency service companies and EE businesses in managing and expanding their operations, including assistance in obtaining funding and structuring projects; (iii) by supporting FIs in becoming active in EE financing, through training on EE finance techniques, credit analysis and marketing; and (iv) by general market promotion, such as conferences and workshops.

The Program is expected to generate a range of environmental and economic benefits in Hungary related to the development of the EE industry and a stream of subsequent EE project investments. Specifically, HEECP2 would: (i) build new capacity in the EE and SME finance sectors; (ii) support the development of energy service companies ("ESCOs"); (iii) develop EE investment projects across all sectors; (iv) improve the competitiveness of the Hungarian economy by increasing the energy efficiency of its operations; and (v) improve the local, as well as the global, environment through reduced emissions of greenhouse gases and other conventional pollutants.

As a result of the energy savings to be realized through HEECP2, the program is expected to contribute to: (i) reduction in capital costs for new power and transmission and distribution capacity; (ii) decrease in the country's reliance on imported energy sources through the energy savings achieved; (iii) improvement in the residents' living standards; (iv) enhancement of some municipalities' ability to reallocate resources; (v) improved competitiveness of the SME sector with the country's upcoming accession to the EU; (vi) reduction in national deficits from direct and indirect energy costs.

B. Current Situation - Project Background

Hungary is a particularly appropriate market for developing this energy efficiency financing model. The financial sector operates in a liberalized environment and institutions are relatively mature. Competitive forces provide a healthy environment for developing financial products responsive to the long-neglected business niche of energy efficiency project finance, particularly in the small and medium size enterprise ("SME") sector. HEECP has generated considerable interest among Hungarian FIs in this market. In addition to generating a range of developmental and social benefits, the global environmental benefits which attracted the original GEF funding for the pilot project as well as local environmental benefits would be also considerably enhanced by the expanded Program.

Two complementary GEF programs are also currently underway in Hungary. The UNDP Public Sector Energy Efficiency Program that targets EE investments in the public sector and the IFC/GEF Efficient Lighting Initiative (ELI). ELI is a three-year, US$15 million program designed by IFC and funded by GEF to accelerate the penetration of energy efficient lighting technologies into emerging markets in developing countries. ELI will lower market barriers to efficient lighting in Argentina, the Czech Republic, Hungary, Latvia, Peru, the Philippines and South Africa through a set of multi-country initiatives, local and global partnerships, and interventions tailored to individual country conditions. The TA program developed for HEECP2 is designed to leverage complementary activities planned jointly with both ELI and the UNDP project. These projects generate deal flow for the HEECP2 guarantee facility partners. In addition representatives from both of these GEF projects will be invited to take part in the HEECP2 advisory committee meetings, to further ensure coordination and optimal resource use for EE investments.

ELI has allocated US$1.25 million for Hungary to lower market barriers to efficient lighting. EGI-Energiagazdalkodasi Intezet administers the two year program in Hungary, which was initiated during the summer of 2000 with a comprehensive lighting market assessment. This assessment was used both to refine the strategy and workplan for the ELI market interventions and to create a baseline against which ELI's market acceleration impact will be measured. ELI's implementation team coordinates directly with HEECP management. The resulting collaboration on project and ESCO development, project financing, as well as TA delivery in the market yields substantial leverage for both activities. ELI's technology-market focus and HEECP's project focus have proven to be highly complementary.

Country Background

Energy Sector and Energy Efficiency issues

Hungary's energy consumption has been increasing, with an approx. 0.4% increase estimated in 1999. Reliance on energy imports is also increasing, with over 60% of energy sources imported in 1999 compared to 46% in 1993, representing a significant burden on the balance of payments. Total primary energy use in 1999 was estimated to have been supplied 41% by natural gas, 32% by oil, and 27% by coal and other solid fuels.

Households and municipalities represent approx. 56% of the domestic energy consumption while 22% of the consumption is represented by small and medium size enterprises, with the remaining 22% used by large corporates.

Of these main user groups, large corporates have been the only ones able to carry out significant energy efficiency related investments, generally funded from their own resources. Nonetheless, users representing over 75% of the country's energy consumption (households, municipalities and SMEs) made very limited investments in

energy efficiency, mainly due to funding constraints. The exception to this has been the SME transactions developed during the pilot stage of HEECP.

Hungary's patterns of energy use are very inefficient due to historically low, subsidized energy prices and industrial structure inherited from the formerly centrally planned economic system. As a result of growing efforts and awareness in the area of energy efficiency, as well as recent movements toward energy price rate mobilization, energy intensity (energy consumption per unit of GDP) in Hungary has improved considerably, but it still represents 1.8 times that of the average International Energy Agency ("IEA") European member state. (Please see Table 1 below for more details.)

Table 1:

COMPARATIVE ENERGY EFFICIENCY INDICATORS

(Regional data shown represent averages)

	Energy consumption per capita	Energy consumption per unit of GDP
HUNGARY	2.5	0.39
European Union	4.29	0.25
Central and Southern Europe	2.12	0.40
OECD	4.6	0.27
World	1.68	0.31

Source: IEA, 1999

Late last year the Hungarian Government announced its commitment to take steps to liberalize the currently still highly regulated Hungarian energy sector, starting this year. It was also stated that the sector will be fully liberalized by the time the country joins the EU (expected sometime between 2002 and 2005). The liberalization will likely lead to increased energy prices and therefore further improve the economic viability of EE projects. (Various estimates and the HEECP experience indicate a technical and economic potential to save 20-30% of total energy consumption at current prices through EE projects having simple payback periods of six years or less.)

Since 1996, an average annual US$30-40 million has been invested in energy efficiency in Hungary. In 1996 the Hungarian Government recently launched a ten year program with the objective of increasing energy conservation and efficiency in the country. The Government estimated that on average US$78 million per year should be spent over the 10 years, which is expected to generate savings of approx. 7% of Hungary's total energy consumption at the end of the ten year period. The State will contribute approx. US$6 million, which is estimated to support three times that amount in EE investments, with the remainder to be financed from companies' own resources and commercial funding.

The Organization of Economic Cooperation and Development (OECD) estimates, however, that an average annual US$200 million will have to be invested in energy efficiency in Hungary for the next 15-20 years, in order for the country to reach OECD levels of energy consumption per capita and per unit of GDP.

There are existing special programs (sponsored by the Hungarian Government, EC PHARE, EBRD) which are targeted at making it more attractive for FIs to finance EE investments, through various grant, co-financing and guarantee arrangements. However, these programs represent very limited resources; currently approximately US$50 million is available to be used over the next several years. Thus, there exists a serious EE investment gap, which GEF's continued support of EE investments in Hungary through HEECP2 can help to fill.

Financing Barriers to EE.

Hungary is significantly under-investing in EE. Financing is the principal barrier for EE project implementation. Financing barriers include: (i) weak credit and unfamiliar risk profiles of energy users which prevents financing from being extended; (ii) extremely cautious bank lending practices towards non blue chip clients; (iii) lack of collateral value of EE project equipment; (iv) lack of relevant expertise and capacity within domestic FIs; and (v) relatively high transaction costs associated with EE project development and financing.

HEECP's experience indicates that domestic FIs can be induced to enter and expand their activities in this market if these barriers can be addressed as the Program has successfully done in the case of the three participating FIs in the HEECP pilot stage.

Banking Sector

The Hungarian banking sector has undergone wide-ranging restructuring in recent years. Features of this include the state's nearly total withdrawal from ownership of the banking sector, the foreign control of over 60% of banking-sector assets, progress in legislative and regulatory frameworks, and improved operating policies and procedures. In 1999, there were 43 banks in Hungary. Until recently, the main efforts of Hungarian banks have been focused on large corporate clients and the upper middle class customer segments, while the mass market remained relatively underdeveloped. However, as a result of the increased competition in the sector, Hungarian banks have recently started to show interest in developing new products and to target sectors that were earlier regarded as unattractive, such as SMEs.

Leasing Sector

The Hungarian leasing sector has been growing steadily since the early 1990s, with an average annual growth rate of nearly 30% during the past five years. The share of capital expenditures financed by leasing (15%) still lags behind the 25% rate in industrialized countries. The majority of leasing companies are bank-affiliated and specialize in car leasing with only a few independent leasing companies which have traditionally been more active in equipment leasing. Nonetheless, due to the intensifying competition in the banking sector, banks have been showing increasing willingness to finance smaller companies. Under these conditions, bank-owned leasing companies are also becoming more active in equipment leasing and SME finance in general, even though productive equipment leases continue to represent only a fraction of the sector. Of the major groups in need of EE related financing, SME end-users have generated the least interest from

banks. Therefore the leasing sector (especially independent leasing companies) can play an important role in filling that gap, given their existing SME client base.

Project Background

This project builds on the success of the pilot stage of the Hungary Energy Efficiency Co-financing Program (HEECP). Its aim is to replicate the basic components of HEECP and to moreover significantly expand co-financing activities based on the experience and success of the initial pilot program. Thus it will further extensively leverage GEF's funds to promote energy efficiency in Hungary.

Existing HEECP Pilot Program.
The pilot program, HEECP, has been a US$5 million EE project development and finance commercialization program. Initiated in 1997, it was fully funded by GEF and executed by IFC on behalf of GEF. US$4.25 million of these funds was allocated for guarantees while US$750,000 was allocated to cover administrative and TA costs. Following a slow start-up, during which potential participants were educated on the merits and mechanisms of the pilot Program, HEECP has generated significant interest from domestic financial institutions and energy service companies alike, resulting in a pipeline of potential project financing of greater than US$20 million.

Currently the pilot has guarantee facility agreements in place with three FIs. Given the education and long project preparation period necessary for financing EE projects, the ten projects (in the total amount of US$2.1 million) that have been to date financed under the HEECP pilot have all been generated by the first FI participant in the pilot. Four of these projects are targeted at residential (multi-family) heating EE investments, with the remainder targeted at industrial SME and municipal EE improvements (each representing multiple retrofit projects). The loans supported by the HEECP guarantees range between US$20,000 and US$800,000. The other two FI participants are now ready to finance EE projects. In addition, seven other FIs have registered interest in joining the program. IFC is presently negotiating Guarantee Facility Agreements with three of these new FIs, based on IFC's US$12 million commitment to an expanded guarantee facility. The project proposals currently under review by the Program represent total proposed EE financing of US$5.2 million. The high probability pipeline of these FIs for the second quarter of 2001 amount to an additional approximately US$7.5 million.

The education of FIs on EE finance and the preparations of projects have been the main focus of the pilot's TA function. To date, nearly 70% of the pilot's TA budget has been committed or spent on EE project audits and the preparation of EE investments. The remainder represents support of EE studies, conferences, training and other EE related activities.

To date the HEECP pilot has not incurred any loan losses. As a result, no guarantee claim has been made under HEECP to date, as each of the end-users has been servicing their obligations on time[1]. The conclusions from a recent evaluation of the pilot project by an independent external expert[2] indicate that the pilot HEECP project has been successful and that there is an important role the Project can play through continued and expanded operations. The expansion of the HEECP pilot would implement many of the evaluation's recommendations on the operations of the Program.

C. Expected Project Outcomes

HEECP2 responds directly to GEF's objective of seeking cost-effective means to reduce GHG emissions consistent with the mandates of the GEF Operational Strategy 5. Improving EE is a primary method for cost-effective control of GHG emissions and lack of adequate financing is one of the primary barriers to EE project implementation.

HEECP2 also represents a significant manifestation of GEF's directive to "mainstream" the application of GEF resources within the core business of the GEF executing agencies. As a result of the HEECP model, several IFC investment departments have expressed interest in pursuing similar energy efficiency sector investments in partnership with the GEF.

In the context of Hungary's implementation of its commitments pursuant to the FCCC, Hungary's Ministry for Environment and Regional Policy ("MERP") has prepared, and its Parliament adopted in 1995, a National Energy Efficiency Improvement and Energy Conservation Plan (or Plan). This Plan and a related document prepared in 1994 by MERP provide estimates of future energy use and their associated GHG emissions in Hungary based on two scenarios, a "business-as-usual" ("BAU") or baseline scenario and an energy savings ("ES") scenario.

The BAU scenario is based on projections of economic growth and past patterns of energy use adjusted for the transition from a centrally planned to a modern market economy, including restructuring of the energy sector and reform of energy prices, which are well underway in Hungary.

The ES scenario contains the same basic economic growth and transition assumptions of the BAU scenario but with additional increases in energy prices and implementation of the Plan. MERP estimates that achieving the ES scenario will require investment of US$422 million over five years and will result in energy savings of 60 PJ and CO_2 emission reductions of 4710 Gg per year (1 Gg = 1000 metric tons). The energy consumption, energy savings and investment values for these two scenarios developed by MERP in its Plan, and the proportional share of the Plan's assumed EE investment program which the HEECP2 will facilitate, have been used for guidance purposes in

[1] Other than through a small and specialized retail guarantee program with Raiffeisen Bank, which, however, would not be part of the expanded HEECP2 guarantee facility.
[2] "Hungary Energy Efficiency Co-Financing Program: Mid-Term Evaluation", Report submitted to IFC/GEF, October 2000, by CJ Aron Associates, Inc.

preparation of this incremental cost analysis. Therefore the baseline for Hungary is assumed to be represented by the BAU scenario whereby in 2000 a maximum of US$50 million per year is invested in EE investments. There is no readily available source data to prepare updated energy and emissions scenarios, therefore the BAU scenario incorporates projections based on the best currently available information and extrapolations of past trends.

Global Environmental Objectives

The HEECP2 is estimated to facilitate a maximum amount of EE investment of US$93.9 million over five years from projects directly supported by the expanded HEECP2. Total CO_2 emissions for the year 2000 in the baseline BAU scenario are projected to be 73.5 tons in Hungary for all sectors. Based on the experience of HEECP this project is expected to achieve a total direct reduction of about 2.6 million metric tonnes of CO_2 over the project's life.

Alternative

The proposed GEF alternative, an extended implementation of the HEECP, will assist Hungary in achieving the energy savings objectives defined in MERP's Plan. MERP has prominently cited financing as a major barrier to EE project implementation. Various estimates indicate a technical and economic potential to save 20-30% of total energy consumption through EE projects having simple pay back periods of six years and less. MERP estimated in 1994 that EE investments of a minimum US$422 million and up to US$ 1.25 billion are needed over the next five years. Recently, nationwide investments in EE have been made at rate of less than US$60 million annually, which, implies that there exists a serious EE investment gap.

The Program's main objective is to build the EE financing capacity of domestic Hungarian financial institutions (FIs). Through its activities, the Program will directly support implementation of cost-effective EE projects and indirectly promote a commercially sustainable EE project development and finance market.

HEECP2 can make possible financing for EE projects which would not otherwise be available from commercial sources under current conditions. In this Program, the IFC will combine already committed GEF resources with its own financing to expand the pilot grant financing modality (HEECP), to attract, facilitate and further leverage commercial private sector financing for this environmentally valuable and developmentally beneficial energy subsector. The lessons learned from the Program are likely to have application in other eligible GEF recipient countries and for future GEF projects. The IFC's recent commitment of its funds to HEECP2 has provided a successful demonstration effort already within IFC. This mainstreaming of a GEF pilot activity has resulted in expressions of interest to expand the HEECP2 co-finance model to several other countries in which IFC operates i.e. Europe, the Middle East, Latin America, Africa and Asia.

HEECP2 represents an innovative model of cooperation between IFC and the GEF. For the first time, GEF funds would be used as a guarantee instrument to leverage IFC and commercial FI capital. The project also provides an important new model for IFC investment in the energy efficiency sector[3]. IFC's involvement significantly leverages the impact of concessional funding resources. IFC's participation would support new EE financing of up to US$67 million, in addition to the up to US$24 million which would be made possible with the original GEF pilot stage support alone. If this model proves successful, it would have significant replication potential not only for EE finance in other countries but also in other highly developmental areas, such as microfinance, or the financing of SMEs. The implementation strategy for HEECP2 is geared to develop increasingly streamlined administrative functions to enable future adaptation of the model by IFC in multiple markets.

D. Activities and financial inputs needed

Projects Supported by the Proposed HEECP2 Program.

Targeted EE projects include a range of technology upgrades to energy-using facilities across the residential, commercial, industrial, and institutional sectors. These can include lighting, motors, space conditioning (heating and cooling), and automated control systems, as well as cogeneration systems that produce electricity from waste heat generated for industrial uses.

The considerable pipeline (about US$22 million) of the interested FIs divides up approximately equally among residential, municipal (supported through private energy service companies or ESCOs[4]), and SME end-users, reflecting the major sources of demand for EE financing in the market.

Structure of the HEECP2 Program.

Similarly to the pilot HEECP, the Program would continue to have two components: the guarantee program to address the credit risk barriers to EE finance and a technical assistance program to address high transaction costs and marketing barriers to EE project development.

Guarantee Component. The Project uses GEF and IFC funds as part of an innovative structure which puts GEF resources in a first loss position as well as using a leveraging mechanism in order to substantially increase lending activity. The Program would

[3] HEECP2 is the fourth project co-financed by IFC and GEF. The other three are Terra Capital Fund (IFC/R97-130), Renewable Energy and Energy Efficiency Fund (IFC/R97-159/1) and Solar Development Group (IFC/R99-66).

[4] ESCOs specialize in providing performance contracting, one of the most important EE business models. ESCOs enter into multi-year performance contracts whereby a portion of the value of the energy savings generated by their capital investment, engineering and maintenance services are paid to them by the building owners over time. In this manner, EE upgrades are undertaken in facilities where the owners themselves lack the interest, knowledge, or capacity to realize the economic benefits represented by EE investments.

provide partial credit guarantees on an average of 35% on a subordinated recovery basis, with the flexibility of issuing individual guarantees of up to 50% as individual transaction circumstances warrant. This represents greater leverage than was sought during the pilot phase, a benefit both of IFC's additional investment and the impact HEECP has had in establishing competition among FIs for the EE lending market. (The term "subordinated recovery" refers to the feature of the guarantee facility whereby in case of default, the FI is entitled to recover its portion of the loan principal [but not interest] before any recovery may apply to IFC).

Within the HEECP2 structure, GEF's US$4 million[5] would be in a first loss position with respect to IFC's guarantee liability. Therefore GEF resources would have to be fully exhausted before IFC would have to pay any guarantee claims under the Program. This translates into a worst case scenario critical default rate of 12.5% for IFC. In other words, if the default rate of 12.5% would be reached on the portfolio of supported transactions, IFC would have to satisfy all the subsequent guarantee claims made under the Program.

One of the most important features of this project is the leverage of the guarantee funds to promote EE investments by using partial credit guarantees provided to participating FIs. Under this agreement FIs lend to corporate entities, municipalities, or other clients with substantial balance sheets. On average, the IFC-GEF guarantees would apply to 35% of such loans. Furthermore, the project allows, at the partner FIs' discretion and risk, for the total of the individual transaction guarantee liabilities to exceed the facility liability limit. Thus more transactions can be supported by, and benefit from the guarantee, promoting a portfolio approach to risk assessment and credit structure. "Gearing ratio" is the ratio resulting from dividing: (i) the sum of the individual transaction guarantee liabilities by (ii) the facility liability limit. This gearing ratio is expected to reach 200% with increasing project experience. In effect, guarantee funds can be leveraged almost six times for the final EE financing[6].

In addition to the above guarantee arrangement, US$250,000 of GEF's funds will be used for a retail portfolio which is considered to be more risky. Thus a lower percentage for guaranteed loans is applicable and is expected to be on average 10%. Under this procedure GEF's funds are leveraged ten times for a total of about US$2,500,000.

Technical Assistance Component. The Program, unlike most other guarantee schemes targeted at supporting EE projects, has a technical assistance component which has been designed based on the pilot experience. The technical assistance program is designed to support both FIs and EE/ESCO businesses and borrowers. This feature has made the program very attractive to FIs, particularly since most of them have not had extensive

[5] GEF's proposed commitment of US$4 million to HEECP2 is derived from the original US$4.25 million GEF allocation for Program guarantees, after setting aside US$250,000 to support a specialized EE retail portfolio program which would not be part of HEECP2.

[6] For instance, US$1 million of funds at 35% guarantees US$2.86 million of available funds for loans [1*(100/35)]. Applying the gearing ratio of 200% a total of US$5.72 million (2*2.86) can become available for EE financing.

experience in the area of EE financing. The TA assignment's objective is to support the implementation of EE projects on several levels: (i) by supporting end-users in evaluating different technical alternatives for EE improvements and their implications; (ii) by supporting energy efficiency service companies and EE businesses in managing and expanding their operations, including assistance in obtaining funding and structuring projects; (iii) by supporting FIs in becoming active in EE financing, through training on EE finance techniques, credit analysis and marketing; and (iv) by general market promotion, such as conferences and workshops.

While the pilot's TA activities have been financed entirely by GEF, HEECP2's proposed TA funding structure includes both GEF as well as trust fund donor financing. GEF will provide US$700,000 and IFC's Trust Funds US$ 400,000. The Program's TA activities are contracted out to specialized engineering and advisory firms highly experienced in EE project development. The local Program Manager remains very involved in the overall management of the TA activities as well as in some specific aspects of the TA, such as training.

Management of the Program. Similarly to HEECP, the management and implementation of the Program will be led by the local Program Manager based in Budapest, with oversight and support from both IFC's Investment Department and the Environmental Projects Unit. Decisions regarding the allocation of Program resources and on individual transaction guarantees to be issued are made by a Supervisory Committee, consisting of staff from both IFC's Investment Department and Environmental Projects Unit. The Program is also supported by an Advisory Committee, which provides the forum for liaison, advice and communication with key Program stakeholders from concerned government agencies, NGOs, EE businesses and end-user groups. It is IFC's intention to refine the program implementation processes over time in order to streamline oversight and subproject approval processes in an effort to build an investment model which would be easily replicable in other markets, even, eventually, in cases where grant funding for TA and program management might not be readily available.

FI Partners

FI Partners. HEECP has three FI partners to date. Dates of execution of GFAs and amounts of Facility Liability Limits for each GFA are indicated below.

Financial Institution:	GFA Execution:	Facility Liability Limit:
Raiffeisen Bank & Raiffeisen Lizing	May, 1997	US$ 2,000,000
MKB Bank	April, 1999	US$ 500,000
OTP Bank	September, 1999	US$ 750,000

IFC is currently in negotiations with the following FIs regarding their potential participation in HEECP2:

?? Budapest Bank and Lizing
?? BankAustria Creditanstalt

?? Kereskedelmi és Hitelbank
?? Axon Lizing
?? Innotrade Lizing

Including all of the FIs that have expressed interest in joining the program, HEECP2 would include as participants. FIs representing over 80% of the capital resources of the entire Hungarian commercial banking sector.

E. Sustainability analysis and risk assessment

The HEECP2 investment with its complementary capacity-building TA activities is expected to make an important contribution towards realizing energy efficiency investments in a sustainable manner. The Program will not only help to develop the local EE industry, but, by creating incentives for local FIs to enter the EE financing market, it also increases the local financial sector's experience and capacity to provide EE project finance on an ongoing, and eventually, on an independent basis. In parallel, the Program's technical assistance to fledgling ESCOs focuses both on assisting in the preparation of bankable projects as well as helping these companies to build equity through effective fundraising and business planning. Through these means, the impact of HEECP2 is likely to be sustained by market forces after its conclusion.

Primary risks associated with HEECP operations include: (i) credit risks of the specific EE financing transactions; (ii) mobilizing participation from domestic FIs; (iii) generating an adequate flow of sufficiently creditworthy EE financing projects; and (iv) adverse changes in policy, energy price, macroeconomic and capital market conditions in Hungary.

Of these, the credit risks of specific transactions are by far the most important and will be evaluated on a case-by-case basis. Participating FIs must identify, evaluate and structure transactions which have credit risk profiles that are appropriate for FI financing and call for levels of financial support acceptable to the Program. Once transactions are funded, risk of default by participating borrowers will remain as an on-going operational risk which is addressed through transaction monitoring.

Mobilization and deal flow risks are viewed as manageable at present. Preliminary negotiations have been held with a number of excellent FI candidates (see Annex 1). Several initial transactions have been identified and the general pool of transactions is growing through the development activities of local EE firms. The market situation, as well as the attractiveness of the Program's unique combination of a guarantee product and technical support, has resulted in increasing interest from domestic FIs. Recent experience in Hungary, including the direct experience of the HEECP, indicates that a sufficient flow of transactions can be generated.

The risk of significant changes in economic conditions is uncontrollable but is seen as diminishing as energy price and macroeconomic reforms and trends move towards Hungary's programmatic target to join the EU.

It should be noted that a guarantee instrument, although it is a contingent financing approach, is still essentially a grant-based financing modality. In the event IFC-GEF funded guarantee authority is called by a participating FI against a particular non-performing transaction, IFC is liable to use the GEF funds to pay the participating FI the guaranteed loss amount in full. In such event the GEF funds are expended in a manner consistent with normal GEF grant financing modalities. The Program has been specifically designed as a tailored intervention to mobilize a portion of the available liquidity held by private FIs in local financial markets by overcoming risk perceptions and to the use of such market funds in EE financing which is consistent with GEF's objectives. The incremental risks to be funded by the guarantee mechanism will be met through a range of possible incremental costs as indicated in the incremental cost analysis.

<table>
<tr><th>Main Risks</th><th>Mitigating Measures and Factors</th></tr>
<tr><td>(i) credit risks of the specific EE financing transactions</td><td>Participating FIs must identify, evaluate and structure transactions which have credit risk profiles that are appropriate for FI financing and call for levels of financial support acceptable to the Program. Once transactions are funded, risk of default by participating borrowers will remain as an on-going operational risk which is addressed through transaction monitoring.</td></tr>
<tr><td>(ii) participation from domestic FIs</td><td rowspan="2">Mobilization and deal flow risks are viewed as manageable at present. Preliminary negotiations have been held with a number of excellent FI candidates. Several initial transactions have been identified and the general pool of transactions is growing through the development activities of local EE firms. Recent experience in Hungary, including the direct experience of HEECP, indicates that a sufficient flow of transactions can be generated.</td></tr>
<tr><td>(iii) adequate flow of sufficiently creditworthy EE financing projects</td></tr>
<tr><td>(iv) adverse changes in policy, energy price, macroeconomic and capital market conditions in Hungary</td><td>The risk of significant changes in economic conditions is uncontrollable but is seen as diminishing as energy price and macroeconomic reforms and trends move towards Hungary's programmatic target to join the EU.</td></tr>
</table>

F. Stakeholder involvement in project formulation

Stakeholders for this project are relevant government agencies, financial institutions, NGOs, academic institutions, the EE industry, utilities and end-user associations with interests in EE project development and finance. The Advisory Committee of HEECP involves representatives from all these groups. This management structure enabled

HEECP2 to enjoy extensive stakeholder participation in its development; this project's formulation accommodates views and proposals from all interested parties.

Continuing support and stakeholder involvement during the actual implementation phase of the project is also ensured by maintaining the Advisory Committee's role in the management of HEECP2.

II. INCREMENTAL COST ASSESSMENT

The incremental cost assessment compares the costs of a baseline scenario to the costs of the proposed HEECP2 program, the alternative scenario. The baseline scenario is the projected likely course of energy efficiency investments pursued by the Hungarian government, other agencies and donors absent the HEECP2 project. It also assumes that the HEECP activity will have ceased its direct market influence. The alternative scenario is expected to enhance and expand these investments in two ways. Firstly, it will provide direct financing utilizing: (i) unexercised guarantees available from the previous project HEECP, which will be extended as a part of HEECP2; (ii) IFC's additional guarantee investment; and (iii) the lending gearing-ratio of the local financial institutions that will be providing the retail financing. Secondly, it will indirectly improve energy efficiency investments, since it will maintain the momentum of such financing practices initialized through HEECP, and will create additional local capacity to assess and implement energy conservation investments.

HEECP2 will finance activities to overcome barriers to energy efficiency investments utilizing a contingent finance method, therefore the final assessment of the actual level of incremental costs incurred by the GEF can only be determined after completion of the project. Such contingent financing activities are subject to uncertainties related to the credit risk evaluations, the eventual exposure undertaken by the participating FIs and the actual default rates of the loans against the guarantees put in place by HEECP2. These uncertainties develop over time and in relation to other overall economic factors; consequently accurate a priori predictions of the level of actual incremental cost are not possible. For these reasons the GEF guarantee funds are deemed to be addressing the incremental risks associated with EE investments and a scenario analysis based on a range of best to worst outcomes is appropriate.

Based on the operational experience of the pilot project HEECP and taking into account the possible scenarios that may develop-- depending on the amount of the guarantee financing exercised-- a range of possible incremental costs is presented in this analysis. It should be noted that to date there has been no need to exercise any of the guarantees provided in the pilot project HEECP, and the total amount of guarantee financing of that project is being rolled over into this follow-up project HEECP2.

An additional uncertainty in analyzing the cost-effectiveness of the GEF funding being supplied, in terms of the cost per ton of carbon being abated, arises from the fact that energy efficiency investments can provide for various degrees of carbon abatement,

depending on the exact type of project and the particular energy efficiency technology that the financing supports. Although the final effects in terms of carbon abatement can only be calculated after the program's completion, the mid-term evaluation of the pilot project provides for an average value to be used for such calculations.

Baseline

Based on a recent study by the Technical University of Hungary[7], annual investments for EE in Hungary were about US$40 million in 1996 and approximately US$60 million in 2000. These figures include contributions and projects resulting from EU PHARE, German Coal Aid Fund, Hungarian Government subsidies, and direct private investment. The government is aiming to reach EU standards in EE investments, but that would require annual investments of about US$200 million over the next 15 years. There is therefore a gap of EE financing that HEECP2 will help to partially fill. It is estimated that the HEECP2 project will induce direct financing of over and above the baseline scenario between US$5 million to US$15 million on an annual basis, up to a total of US$91 million over the life of the program.

Alternative

HEECP2 funding from the GEF consists of two parts: (i) this proposal to provide operations and technical assistance to the project through an MSP for an amount of US$700,000; and (ii) remaining funds from the pilot project HEECP of $4.25 million which is already committed to guarantees with FIs that will be extended. The total of the final amount to be contributed to the program by the GEF represents the final incremental cost of the project. This actual amount will only be known at the end of HEECP2. However the GEF funds from this MSP will be combined with an additional technical assistance component from IFC's trust funds. To the existing GEF amount from HEECP which is available for guarantees a further IFC investment will be added.

In all scenarios the funds of this GEF MSP proposal are used to provide technical assistance to the project and as a result are all classified as incremental cost financing as they will all be expended during HEECP2. However, their availability helps to leverage guarantee funds of the GEF through a guarantee mechanism to provide consumer financing for EE investment. Through the program's financing mechanism a total of US$16 million of GEF's and IFC's guarantee funds are set aside as a partial credit guarantee for an average of 35% participation in individual FI Guarantee Facilities. Counterpart local FIs enter into the project's Guarantee Facility Agreements to provide end-user EE financing, and apply a lending gearing-ratio of two to one, thereby further leveraging GEF's funds. Due to this system GEF funds can be leveraged on average six times. A smaller guarantee amount of $250,000 will be available for retail EE financing which will be leveraged about ten times (see page 15, Structure of the HEECP2 program).

[7] Urge-Vorsatz D. and Fule M. (Editors): "Economics of Greenhouse Gas Mitigation – Hungary Country Study," Budapest 1999

The incremental costs to GEF for the alternative scenarios range between the best case (no guarantees will be called and the maximum leverage of funds is achieved) to the worst case (all of the guarantees are exercised and there is a minimum level of fund leverage). In the best-case alternative scenario the incremental cost level corresponds to the full use of the technical assistance funds only. In the worst-case scenario the incremental costs to GEF include in addition all of the existing guarantees being called.

Based on the pilot project's activities (HEECP), six investments which were evaluated during the project's mid-term evaluation resulted in 4,434 tons/year of avoided CO_2 emissions for a total capital cost of US$1.6 Million. This implies an average of about 750 tons of carbon avoided annually for every US$1 million spent on EE investments.

The alternative scenario with the range of possible incremental costs under best/medium/worst case developments is presented in the incremental cost matrix found in Table 2. In terms of $/ton of carbon abated these costs range from US$1 to US$14.40. In comparison the pilot project's estimates were spread between US$1 to US$59. The reduced level of worst-case scenario incremental costs are due to the reduced percentage of loans that will be guaranteed by HEECP2 and the addition of the IFC funds that result in greater leveraging of GEF's committed funds through a higher level of overall EE investments and cost-sharing of the TA component.

It should be noted that the structure of the Guarantee Facility Agreements governing the disbursement of funds to local FIs (which provide the end user loans) include incentives and provisions that will most likely result in an outcome that closely resembles the best-case scenario presented in the table below. TA will be provided to the FIs to enhance their ability to evaluate energy efficiency related investments. Moreover, TA will also be provided to borrowers and project developers to support preparation of quality, well-structured projects. It is expected that the technical assistance component of this proposal will also contribute to strong portfolio quality in EE investments and consequently a bias towards the best-case scenario.

It should be emphasized that in the pilot project there were no guarantees called and the project followed the best-case course. Therefore, had the GEF Support been discontinued at the end of the pilot project the total level of incremental costs incurred by the GEF would have been US$ 750,000, as a total of US$ 4.25 million in uncalled guarantees remained available to be potentially returned to the GEF.

Alternative Scenario Analysis

IFC/GEF HUNGARY ENERGY EFFICIENCY CO-FINANCING PROGRAM 2 (HEECP2)
INDICATIVE RANGE OF PROGRAM PERFORMANCE, LEVERAGING, AND COST-EFFECTIVENESS

Scenario	Incremental Costs (Net Program Costs - GEF) [1]	Leverage [2]	Total Capital Cost of EE Projects Supported [3]	Average Annual Carbon Emissions Reduction Tons Per $1 Million EE Investment [4]	10 Year Cumulative Carbon Emissions Reductions (Average Estimate Tons of C)	Program Costs Per Ton Carbon Emissions Reduction
Best Case	**US$700,000**	**6:1**	**US$93,900,000**	**750**	**704,250**	**US$1**
Medium Case	**US$2,825,000**	**4:1**	**US$68,500,000**		**513,750**	**US$11.3**
Worst Case	**US$4,950,000**	**3:1**	**US$45,700,000**		**342,750**	**US$14.4**

Notes:

1. GEF funding involves both the US$ 4.25 million in remaining HEECP funds taken together with the US$ 700,000 GEF MSP being applied for. Net Program Costs reflect performance of guaranteed transactions. Best case assumes no guarantees are called and guarantee capital is preserved; medium case assumes 50% of the guarantees are called; and worst case assumes all guarantees are called and all guarantee reserves are expended. In all cases the GEF funds available through this MSP grant are fully used for operations and technical assistance to the project.
2. Leverage reflects the ratio of *total* capital cost of EE projects supported by the program, to GEF and IFC provided guarantee funds.
3. The total capital cost for EE investments results from the partial guarantees provided by GEF and IFC funds leveraged by the lending gearing ratio of participating FIs. It also includes the partially guaranteed loans at the retail level leveraged ten times (US$2.5 million). In the best case scenario the full 200% gearing ratio is used, in the medium case 150% is assumed and in the worst case it is at 100%.
4. Average carbon emissions reduction achieved will vary by type and performance of EE projects. This estimate is based on the analysis and evaluation of the pilot project HEECP .

III. BUDGET

Total GEF support for the proposed Medium Size Project would amount to US$700,00 0. This amount combined with US$400,000 from IFC's Trust Funds will be used to provide TA and administrative support to the overall program.

A. Budget

The initial pilot program HEECP had a budget allocation of US$5 million in GEF resources distributed as follows:
US$4.25 million for guarantees
US$0.3 million for technical assistance
US$0.45 million for program operations

This allocation was budgeted for four years, ending in 2000. HEECP2 is expected to have a Program life of between nine to eleven years, based on the maximum loan maturity of seven years and an availability period of two to four years (during which the FIs could access the guarantee facility), depending on the prevailing demand in the market. IFC's investment exposure would initially be for a guarantee of up to US$8 million, increasing to US$12 million one year later.

The Program budget is estimated to be the highest during the initial two year availability period, given the amount of work involved by local management to work with FIs in generating an adequate deal flow. Furthermore, due to the limited EE experience of most FIs, the need for TA is expected to be the highest during this initial period. Program operations are also expected to be very active during the third year, as realistically, some FIs will likely start their participationa few months after the program's initiation. Nonetheless, the budgetary needs are expected to start declining during the third year of operations.

During the fourth year of the Program, budgetary needs are expected to be lower, with the FIs needing less assistance in generating and structuring transactions. During the remaining life of the Program, the management activities will involve principally supervision and monitoring, with reviews and processing of guarantee payment requests, if any. At that point the Program's local management support can be diminished with monitoring to be carried out by IFC local staff or under an out-sourcing arrangement, as seems practicable at that time and based on the performance of the guaranteed transactions.

As a result, of an overall program administration budget of approximately US$1.1 million is anticipated, including expected TA related spending of US$0.6 million and an operating budget of approx. US$0.5 million. As indicated earlier, these amounts are expected to be largely spent over the first four years of the Program. Please see Table 3 for detailed information on the projected budget.

B. Staffing

The Program will operate with three full time employees: the Local Program Manager, a financial credit analyst and a support staff. Taking into consideration the increase in the volume of work related to the expansion of the Program, as well as the recommendations of the HEECP mid-term evaluation that the Program should offer more special assistance to FIs with no previous EE experience (such as Magyar Kulkereskedelmi Bank), IFC will add a financial analyst position, which did not exist during the pilot project.

The IFC investment is up to US$12 million in guarantee authority for IFC's own account. IFC's investment would be implemented in two tranches. First, US$8 million would be allocated for guarantee facilities to be issued by the Program (along with the US$4 million in GEF funds, most of which has already been allocated.) Second, following a review of the Program experience a year after the allocation of the first tranche, the second IFC tranche of US$4 million would be available for allocation to Program guarantees, subject to satisfactory findings by the review, focused on market demand and the Program's operating and credit experience.

Table 3- Program Administration Budget

(US$ 000's)	1997	1998	1999	2000 (est)	TOTAL ('97-2000)	TOTAL (as %)	2001	2002	2003	2004	TOTAL (2001-2004)
DIRECT TECHNICAL ASSIST.											
TA for en. audits & project devt.	1.0	13.0	47.1	162.8	224.0	19.2%	60.0	65.0	60.0	0.0	185.0
TA to support FI EE mrktg & training	0.0	5.6	7.5	38.0	51.0	4.4%	25.0	50.	25.	0.0	100.0
EE/ESCO bus. training & advisory	0.0	0.0	0.0	0.0	0.0	0.0%	75.0	50.0	50.0	0.0	175.0
Eval. & Monitoring	0.0	0.0	0.0	15.0	15.0	1.3%	15.0	15.0	15.0	45.0	90.0
General and other activities	1.4	0.4	6.5	24.2	32.5	2.8%	20.0	20.0	10.0	0.0	50.0
	2.4	19.0	61.1	240.0	322.5	27.6%	195.0	200.0	160.0	45.0	600.0
OPERATING COSTS											
Travel	4.3	10.4	16.0	19.2	49.9	4.3%	23.0	23.0	18.6	16.9	81.5
Communic.	8.6	8.7	10.1	12.1	39.5	3.4%	10.0	10.0	11.0	10.0	41.0
Local staff	20.7	28.0	30.0	30.0	108.7	9.3%	45.0	65.0	75.0	60.0	245.0
Office rent & related	51.7	46.0	41.5	41.5	180.7	15.5%	22.0	22.0	30.0	30.0	104.0
Other	13.1	5.0	8.5	8.5	35.1	3.0%	8.5	8.6	5.7	5.7	28.5
	98.3	98.1	106.1	111.3	413.9	35.4%	108.5	128.6	140.3	122.6	500.0
TOTAL FINANCED FROM TA FUND	100.7	117.1	167.2	351.3	736.4	63.0%	303.5	328.6	300.3	167.6	1,100
DIRECT IFC COST (incl.appraisal)	153.2	82.4	47.2	150.0	432.7	37.0%	150.0	150.0	100.0	100.0	500.0
OVERALL PROGRAM BUDGET	253.9	199.5	214.4	501.3	1,169.1	100.0%	453.5	478.6	400.3	267.6	1,600

IV. IMPLEMENTATION ARRANGEMENTS AND IMPLEMENTATION PLAN

A. Implementation Arrangements

Management Structure

The HEECP2 Program is implemented by IFC as a joint venture between IFC's Central and Eastern Europe Financial Markets Department (CEUFM, the investment department responsible for the IFC investment of US$12 million) and the Environment Department (which has responsibility for administering GEF projects within IFC, and which has managed the HEECP Pilot Project). This joint venture draws upon the credit and oversight experience of CEUFM, matched with the energy efficiency market experience and project finance expertise of the Environment Department. The Program will be primarily is implemented by a core team of three Hungarian nationals, based in Budapest, who work out of the IFC office. This team works under the direction of the IFC Environmental Projects Unit, with specific credit analysis support from CEUFM. A team of consultants supports this work. These experts are drawn both from Hungary, and internationally.

A Supervisory Committee, with representatives from CEUFM and the Environment Department, approve the commitment of guarantee facility resources to specific banks under Guarantee Facility Agreements. The Committee also approves individual projects to which the guarantee will be applied. These are provided in response to proposals submitted by the participating banks. A Program Manager from the Environment Department supervises the Hungarian Program Manager in administering the guarantee program, and in developing and implementing the TA program. An Advisory Committee, comprised of Hungarian stakeholders, provides on-going advice on policy issues related to the program, as well as providing technical advice and political support within Hungary.

The allocation of responsibilities and roles under the program are detailed below. Modifications to the structure used during the pilot stage HEECP are highlighted in *italics.* These changes are the result of the need to streamline procedures and expand capability in the program commensurate with the expanded scope of the HEECP2. The changes also reflect lessons learned during the pilot stage, as documented in the HEECP mid-term evaluation.

Responsibilities

Supervisory Committee: (officially 4 members, but decisions can be made with one representative of each of the Regional and Environment Department present.)

?? Approve financial intermediaries (FIs) for program participation
?? Approve guarantee facility agreements (GFAs) with participating FIs
?? Approve transactions undertaken pursuant to the GFAs
?? Address matters of policy and FI compliance as they arise

Advisory Committee:

?? Provide a forum for liaison, advice and communication with key Program stakeholders from concerned government agencies, financial institutions, NGOs, EE business and end-user groups, fulfilling GEF requirements.

Investment Dept. (CEUFM)

Director:
?? Member of the Supervisory Committee
?? Execute Program related legal documents (based on the recommendation of the Supervisory Committee)
?? Authorize disbursement of guarantee funds with Regional Dept. Director

Manager:
?? Execute Program related legal documents (based on the recommendation of the Supervisory Committee)
?? Authorize disbursement of operating funds with EPU Manager
?? Approve annual program operating budget with EPU Manager

Senior Investment Staff:
?? Member of the Supervisory Committee
?? Fulfill a credit advisory role to Local Program Manager, in reviewing the FIs' guarantee proposals and in preparing proposals to the Supervisory Committee

Environment Department

Director:
?? Member of the Supervisory Committee
?? Authorize disbursement of guarantee funds with Investment Dept. Director

EPU Manager:
?? Member of the Supervisory Committee (will be delegated to HEECP Program Manager as soon as practicable.)
?? Execute transaction guarantees (based on the recommendation of the Supervisory Committee)
?? Authorize disbursement of operating funds with Investment Dept. FM Manager
?? Authorize disbursement of technical assistance funds
?? Approve annual program operating budget with Investment Dept. FM Manager

HEECP2 Project Manager:
?? Supervises and provides guidance to Local Program Manager and EE Finance Specialist
?? Manages TA program, with Local Program Manager and support of EE Finance Specialist
?? As soon as practicable, replace EPU Manager on Supervisory Committee
?? With other EPU staff, manages GEF relationship and reporting responsibilities
?? Leads initiative to develops guarantee program replication in other countries

Local Program Manager:

?? Manage the Program's day to day operations / contacts with FIs
?? Marketing
?? Serve as the first level of credit review, with help from Investment Dept. Senior Staff
?? Develop strong credit skills to meet IFC credit expectations in making proposals to the Supervisory Committee
?? Prepare proposals to the Supervisory Committee together with EE Finance Specialist
?? Coordinate and manage TA activities, together with EE Finance Specialist
?? Other GEF related responsibilities

EE Finance Specialist:

?? Assist HEECP2 Program Manager and Local Program Manager in development and implementation of the TA program
?? Help Local Program Manager in the preparation of proposals to the Supervisory Committee (to be phased out over time and replaced by the involvement of HEECP2 Program Manager and Investment Dept. Senior Staff)
?? Assist in meeting GEF reporting responsibilities; support EPU in evaluating opportunities for new guarantee programs and transferring experience of HEECP2 to other countries

B. Project Implementation plan

Technical Assistance and Training

Under the Technical Assistance and Training Program we identified the following areas where HEECP2 would support different market segments of the energy efficiency market:

1. FI Training and Marketing Program

a) Training. An FI training program will be prepared to instruct FI staff in EE finance structuring and marketing. Training will include introduction of EE technologies, economics, and end-user savings benefits. Special features of EE transaction structuring, including ESCO lending and project finance techniques relevant for EE projects, will be covered. These techniques will vary and must be applied to specific end-user sectors. Specific cases for use of project finance techniques applied to EE, thermal plant and small cogeneration projects are under development with FIs. This training program will be delivered in a workshop format with multiple FIs attending; sections of it will also be delivered on request to groups assembled from single specific FIs. The FI training will also includeone-on-one consultations to FIs and specialized deal structuring assistance. This is already being done in the context of preparing deals for the guarantee program.

b) Marketing. IFC will assist FIs to develop their own EE finance marketing plan. The plan will include: finance structures the FI will offer; staffing; use of branch network; relationships with EE companies; special programs (e.g., use of HEECP2 TA program) to stimulate and develop projects for their pipeline; use of the guarantee. HEECP2 staff, including the financial advisor, can assist the FI in preparation of this plan.

2. ESCO and EE Business Support Programs and Energy Audit Program

a) Audit Program. By supporting energy audit, the Program will assist in building a pipeline of projects for financing. Prospective customers will be identified by participating FIs and EE businesses. Preliminary "walk-through" level audits can be performed for relatively low cost, between US$1500-2500 per facility.

b) Energy audits will also be done on projects proposed for guarantee support in order to encourage more comprehensive EE measures to be evaluated and implemented. Training programs will include education of ESCOs and end-users on the benefits of and methods for developing comprehensive EE solutions.

c) Project Development Program. Post-audit, HEECP2 will share on a co-financing basis in the further costs of project development, for detailed engineering and preparation of project contracts. Guidelines as currently formulated for project development support. These funds will be provided on a partially reimbursable basis: if the project proceeds to implementation, a portion (50%) of these monies must be returned to the Program. Assistance will also be provided (through the FI and ESCO support programs) in project finance structuring. A maximum of US$15,000 per project in post-audit development assistance will be budgeted.

3. General and Target Market Development

The TA work scope will include the following items:

?? Identifying target markets, hard to reach niches. These markets will be (i) district heating plant and end use level retrofit, (ii) budgetary institutions especially hospitals, (iii) co-generation for district heating, hospitals and industrial SMEs.
?? Designing special assistance for these market segments.
?? Preparing case studies for each target market and organizing promotion actions for similar potential clients.

4. Program Evaluation and Project Monitoring

An engineering consultant company (EGI) is hired to undertake project monitoring of HEECP2 sub-projects. Under the contract, the consultant company:

1. Reviewed project files and calculations of GHG emissions reductions estimates for the projects.
2. Proposed a methodology to confirm actual GHG emissions reductions achieved by projects already implemented.
3. Implemented this post-implementation methodology, as approved by IFC, to existing projects.
4. Made recommendations for improving the system of (i) pre-implementation estimations of GHG emissions reductions, and (ii) post-implementation verification for new projects.

This consultant company will continue performing these tasks, both pre-implementation and post-implementation, on future projects in the expanded program.

Post-implementation Methodology. The methodology for post-implementation verifications generally follows, i.e., confirms actual values of key variables in, the calculations made pre-installation for the project. Pre-installation calculations of the baseline, i.e., energy use of the existing system prior to the

project, can be used. Key variables include, for example: combustion efficiency of new boiler systems, customer energy loads, generation output of boiler systems, efficiency of end-use equipment, etc. IFC will assist in obtaining and assuring the cooperation of the participants in the projects. These parties include: the applicable FI, the implementing contractor, and the energy end-user.
5. Guarantee Facility Administration and Procedures

1. IFC Board Approval for the parallel IFC investment of up to US$ 12 million established the list of eligible FIs to participate in the Program and their individual liability limits (with room left for future allocation to new interested FIs, to be approved by the Supervisory Committee under delegated authority).
2. Guarantee Facility Agreement ("GFA") signed with participating FIs to establish the conditions of cooperation.
3. Once the GFA is signed, FIs can submit project proposals for the Program's consideration, which, among others, has to include a detailed appraisal report on both the technical and credit aspects of the proposed project (details determined by GFA).
4. Project proposals are first submitted to the Program's local manager. *With the help of Senior Investment Staff*, local program manager reviews the documents and prepares a proposal to the Supervisory Committee, which has the authority to approve or reject the proposal.
5. Following the decision of the Supervisory Committee, the FI receives a written notification about the decision.
6. FI and borrower enter into loan agreement.
7. IFC issues transaction guarantee (subject to a number of conditions as listed in GFA).
8. Disbursements: (in case the guarantee is called): Disbursement recommendation to come from EPU Manager *and Investment Department CEU FM Manager*; (ii) clearance to be provided by IFC's Legal Department; and (iii) the disbursement authorization to come from the Environmental Department Director *and Investment Dept. Director.*
9. Matters of FI compliance under the GFA will be brought to the Supervisory Committee for decision.

Note: Subsequent to an initial two approvals for any participating FI, IFC in its discretion may decide to simplify this process by switching to a non-objection based approval mechanism. The Supervisory Committee should have the authority to make such decision.

V. PUBLIC INVOLVEMENT PLAN

HEECP2 will follow the approach used by HEECP for the public involvement component of the program. The advisory committee of HEECP is a forum for liaison, advice and communication with key program stakeholders from concerned government agencies, financial institutions, NGOs, EE business and end-user groups. The advisory committee co-operates directly with the supervisory committee of the program, thereby ensuring constant, long-term involvement of stakeholders in the program.

The Program has been reviewed by and received the endorsement of Hungary's Ministry for Environment and Regional Policy; the Ministry of Industry and Trade and its Hungarian Energy Office; the National Bank of Hungary; the Hungary-EC Energy Centre; and the Energy Club, a leading energy efficiency and environmental NGO. HEECP2 has been designed to complement and build on the experience of other previous, existing and proposed EE initiatives in Hungary. Consistent with GEF's objectives, HEECP2 will maintain the Advisory Committee established

during the Pilot Stage HEECP which consists of representatives from relevant government agencies, financial institutions, NGOs, the EE industry, utilities and end-user associations with interests in EE project development and finance. The Advisory Committee will continue to be convened approximately semi-annually to advise the Program on operational issues and promote its coordination with other national initiatives and policies. The Advisory Committee is also a forum for the advancement of EE finance as many of its participants play important roles in promoting and sustaining a favorable policy environment for EE investments.

The participant member list of the Advisory Committee and their affiliations are provided in Annex 2.

VI. MONITORING AND EVALUATION PLAN

IFC will undertake an evaluation and assessment of the Guarantee Facility and TA program under IFC's standard investment monitoring and evaluation procedure. This process addresses both the investment component of the project as well as its developmental impact. The Hungarian firm EGI provides real-time monitoring of project implementation. This ensures confirmation of effective investment project, implementation, establishment of a valid baseline, detailed GHG reduction measurement, as well as real-time data to assist the implementation team in adjusting program management procedures to ensure continuous improvement. The Pilot Stage Program mid-term evaluation provides the basis for HEECP2 ‘s monitoring and evaluation plan. An additional final evaluation will provide an expanded set of measures and recommendations to guide future Program replication.

ANNEX 1.

Information on Local Financial Institutions (slated to participate in HEECP2)

Raiffeisen Bank ("RB"): Mid-size bank established in 1986, majority owned by the Raiffeisen Group of Austria. Municipalities, SMEs and retail clients represent the bank's target clients. RB was the first and most active participant in HEECP and is considered to be the most advanced in the area of EE finance in Hungary. RB currently has a guarantee facility of US$2 million with the Program. RB to date has completed ten ESCO financing projects and a retail gas portfolio project (in the overall amount of close to US$4 million). Seven of the ESCO projects and the retail gas portfolio product have been supported by HEECP guarantee. RB has a current pipeline of EE projects of approximately US$5.5 million. The specific areas RB intends to target in the future with the Program's help are street lighting modernization for small cities, implementation of end use efficiency improvements for district heating customers, expansion of retail portfolio lending for homeowners, and co-generation for district heating, hospitals and universities.

Orszagos Takarekpenztar Bank ("OTP"): Established in 1949, OTP is Hungary's largest bank. The Bank is majority owned by domestic private and institutional investors. The bank traditionally has been very active in the retail and municipal finance segments of the banking market. OTP currently has a guarantee facility of US$750,000 with the Program which the bank has not yet utilized. Nonetheless, the Bank has a strong pipeline of 22 projects representing approximately US$2 million. OTP and the Program have been working closely together in the development of these projects, and the first two guarantee proposals were submitted to the Program at the end of the 2000. OTP's intention is to focus on street lighting and district heating projects in its EE financing activities.

Magyar Kulkereskedelmi Bank ("MKB"): Established in 1950 to finance foreign trade, MKB is currently the third largest bank in the country and is majority owned by Bayerische Landesbank Girozentrale of Germany since its privatization. The bank traditionally has been servicing large corporate clients, with a recent shift in strategy towards smaller enterprises. MKB currently has a guarantee facility of US$500,000 with the Program which the bank has not yet utilized. The Program is working closely with the bank in building an EE project pipeline, focusing on SMEs and industrial end-users.

Bank Austria Creditanstalt Hungary ("BAC") / Hypovereinsbank Hungary ("HPV"): BAC and HPV had both expressed strong interest in participating in the Program. Since the initial discussions, however, the parent institutions have decided to merge, and BAC is expected to dominate the strategy of the merged entity in Hungary. The bank already has some experience in the area of EE finance and is planning to become more active in financing street lighting projects if it is accepted into the Program.

Budapest Bank ("BB"): Established in 1987 and controlled by General Electric Capital since its privatization, the bank's activities are focused on retail banking and serving SME customers. BB has some experience in the area of EE finance partly through a special environmental program of the European Commission's Poland and Hungary Assistance for the Restructuring of the Economy ("EC PHARE"), managed by the bank. EE finance has been identified by the bank as one of the key areas

necessary to develop to better serve its SME clients, and BB has developed a pipeline of US$1.7 million which it plans to develop further once it participates in the Program.

Axon Leasing ("AL"): AL is a medium size leasing company established in 1991, with its operations focused on equipment leasing in the eastern part of Hungary. In 1999, IFC invested US$0.9 million in AL for a 23% stake. The remainder of the company is owned by Inter-Europa Bank of Hungary (23%) and the two co-founders of the company (54%). AL has very limited experience in the EE area. Nonetheless, it has very good existing relationships with suppliers and manufacturers of EE equipments and it is part of the company's strategy to become more active in EE financing. The company estimates that with the support of the Program, approximately US$0.33 million a year in EE financing could be extended by AL. Furthermore, AL is uniquely positioned with its 1,200 small and micro clients to service a customer group not targeted by the other interested FIs.

Innotrade Leasing ("IL"): IL is a small leasing company established in 1989, owned by private Hungarian individuals. IL is very active in the area of equipment finance and has got some experience in the area of EE finance, having financed approximately 15 EE projects in the past. IL expressed strong interest to further develop its EE related activities with the help of the Program. The company estimates that with the Program's support, approximately US$0.33 million a year in EE financing could be extended by IL.

Kereskedelmi es Hitelbank ("KHB") / ABN Amro (Magyar) Bank ("ABN"): KHB and ABN have expressed strong interest in participating in the Program. Since the initial discussions, however, a decision has been reached for KHB to take over ABN later this year. KHB was established in 1987 and will become the second largest bank in the country following the merger with ABN. KHB has been majority owned by KBC Bank of Belgium since its privatization. KHB is a universal bank, recently becoming more active in the areas of retail banking and SMEs. KHB has gained some experience in EE finance through managing an EE targeted EC PHARE program which is now fully utilized. Through that experience the bank has built up strong relationships in the EE area and estimates to be able to extend EE financing of approximately US$6.5 million with the Program's support.

ANNEX 2.

Advisory Committee Participants

	Name	Company	Title
1.	Ámon, Adrienn	Energy Club	Executive Director
2.	Beliczay, Erzsébet	Clear Air Action Group	Vice President
3.	Bella, Klára	OTP Bank	Deputy General Manager
4.	Bonifert, Márta	Vivendi	HR Director
5.	Elod, György	EGI	Chief Engineer
6.	Dr. Faragó, Tibor	Ministry of Environment Protection	
7.	Roger W. Grawe	Country Director	World Bank
8.	Halász, Ferenc	Energy Office	Head of Department
9.	Dr. Hegedus, Ágnes	National Bank of Hungary	Deputy General Manager
10.	Kovács, Zoltán	Kipcalor	General Manager
11.	Dr. Medgyesy, Balázs	Energy Center Kht	General Manager
12.	Pásztor, István	Honeywell	CEO
13.	Dr. Pásztor, Zsolt	Deloitte&Touche	Manager
14.	Pfeningberger, András	Raiffeisen Lizing	Director
15.	Tarján, Éva	National Bank of Hungary	General Manager
16.	Tatár, Tibor	KPMG	Managing Director
17.	Török, Ádám	IMC	Head of Institution
18.	Turák, Richárd	ELMO Holding	Director
19.	Ürge-Vorsatz Diana	CEU	Professor