

**GLOBAL  
ENVIRONMENT  
FACILITY**

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*Tony Salzman*

**MOHAMED T. EL-ASHRY**  
CHIEF EXECUTIVE OFFICER  
AND CHAIRMAN

January 13, 1997

Dear Council Member:

The World Bank, as Implementing Agency for the project entitled, *Hungary Energy Efficiency Co-Financing Program*, has submitted the attached proposed project document for CEO endorsement prior to final approval of the project document in accordance with World Bank procedures.

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

This project, together with the World Bank's proposed project document for the *Replenishment of the Small and Medium Scale Enterprise Program* also enclosed in this mailing, break new ground in applying the incremental cost approach to financial provisions for incremental risks of intermediaries engaged in private sector lending. The GEF Secretariat has discussed and clarified with the Implementing Agency the proposed modalities to enable private sector participation in GEF programs. GEF funding is being requested to remove barriers for private sector investment in activities that generate global environmental benefits. IFC has identified the additional risks associated with lending for these activities as constituting an incremental cost to the private financial institutions (intermediaries). Each of the two projects uses a different modality to cover these risks, in order to diversify the experience of IFC with innovative approaches to involving the private sector. The attached project proposal uses contingent grants to provide guarantees for incremental risks associated with global-benefit-focused lending. Necessary incentives for prudent commercial practices will be provided by requiring intermediaries to guarantee at least 50% of the loan amount.

ENVIRONMENTAL FACILITY

... has submitted the attached project document for CBO endorsement prior to four weeks, ...

... will be reviewing the project document ... the proposal included in the work program ... and with CEF policies and procedures ... will also ascertain whether the proposed level of CEF financing ... in light of the project objectives ...

... of the Small and Medium Scale Enterprise Program also enclosed in ... applying the incremental cost approach to financing ... intermediaries engaged in private sector lending ... discussed and clarified with the Implementing Agency ... enable private sector participation in CEF programs ... to remove barriers for private sector investment ... IFC has identified ... activities as constituting an ... Each of the two projects use ... in order to diversify the experience of IFC ... The attached project proposal ... for incremental risks associated with ... Necessary incentives for prudent commercial lending ... to guarantee ...

Council Member

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January 13, 1997

If by February 10, 1997, I have not received requests from at least four Council Members to have the project reviewed at a Council Meeting because in the Member's view the project is not consistent with the Instrument or GEF policies and procedures, I will complete the Secretariat's assessment with a view to endorsing the proposed project document.

Sincerely,

A handwritten signature in black ink, appearing to read "Mohamed T. H. ...". The signature is written in a cursive style and is located on a light-colored rectangular background.

cc: Alternates, Implementing Agencies, STAP

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... if by February 10, 1997, I have not received requests from at least four Council members to have the project reviewed at a Council Meeting because in the Member the project is not consistent with the treatment or CBF policies and procedures

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# OFFICE MEMORANDUM

*Mani  
For your files.*

**DATE:** January 10, 1996

**TO:** Mr. Mohamed T. El-Ashry, CEO/Chairman, GEFSEC

**FROM:** Lars O. Vidaeus, Executive Coordinator of GEF Operations, ENVGC

**EXTENSION:** 34188

**SUBJECT:** IFC/GEF Hungary Energy Efficiency Co-Financing Program (HEECP) - Council Review/CEO Endorsement

Please find attached 75 copies of the IFC/GEF Hungary Energy Efficiency Co-Financing Program (HEECP) Project Document for circulation to Council Members prior to your endorsement. The project's design, its global environmental objectives and proposed GEF funding are unchanged from those outlined in the project proposal in the work program approved by the Council on April 2, 1996.

It is worth noting that HEECP represents the first use of GEF funds as a guarantee mechanism, a new form of grant financing modality. As such it is a valuable pilot project to demonstrate new ways of using GEF's limited funds to achieve greater leveraging of private sector commercial funding from local financial markets into investments that produce global environmental benefits. It is also viewed as a high priority project by the Government of Hungary as reiterated by Secretary of State Dr. Katalin Szili in her meeting with World Bank Group and GEF Secretariat representatives on September 6, 1996.

The Program is also complementary to the proposed IFC/GEF Renewable Energy and Energy Efficiency Fund (REEF) in that it will be: locally based; focused exclusively on stimulating Hungarian energy efficiency investments; likely to support smaller transaction sizes on average than REEF; and capable of fostering broader outreach to indigenous private sector project developers than will be possible through a global fund. The Program has also been designed to complement other Hungarian energy efficiency policy and financing initiatives including activities planned or underway with support from the European Commission and the European Bank. The project document has also been revised and strengthened to address the questions and concerns raised by several Council members and the GEF Secretariat's issues raised at the GEFOP meeting and a meeting with your staff earlier this month.

Attachment

cc: Messrs./Mmes. A. Raczynski, M. Riddle, L. Boorstin, J. MacLean, C. Feinstein, J. Albert, D. Ahuja, F. Rittner



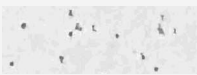
**HUNGARY**

**ENERGY EFFICIENCY  
CO-FINANCING PROGRAM**

**Project Document**

January 1997

International Finance Corporation  
Technical and Environment Department  
Environment Division



ENERGY EFFICIENCY  
ADVANCING PROGRAM



1997

Environmental Protection Agency  
and Environmental Department  
Energy Efficiency





**INTERNATIONAL FINANCE CORPORATION  
GLOBAL ENVIRONMENT FACILITY**

**HUNGARY ENERGY EFFICIENCY CO-FINANCING PROGRAM**

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**GLOSSARY OF ABBREVIATIONS**

DSM	demand side management
EC	European Commission
EE	energy efficiency
ESCO	energy service company
FCCC	U.N. Framework Convention on Climate Change
FI	financial intermediary
GCAF	German Coal Aid Fund
GDP	gross domestic product
GEF	Global Environment Facility
GW	gigawatt
HCB	Hungarian Credit Bank
HEECP	Hungary Energy Efficiency Co-Financing Program
HUF	Hungarian Forint
IFC	International Finance Corporation
MERP	Hungary Ministry for Environment and Regional Policy
MIT	Hungary Ministry of Industry and Trade
MW	megawatt
OECD	Organization for Economic Cooperation and Development

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HUNGARY  
ENERGY EFFICIENCY CO-FINANCING PROGRAM

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INTERNATIONAL ENVIRONMENTAL REPORT  
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INTERNATIONAL FINANCE CORPORATION  
GLOBAL ENVIRONMENT FACILITY

HUNGARY ENERGY EFFICIENCY CO-FINANCING PROGRAM

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**GRANT SUMMARY**

**Project Title:** Hungary Energy Efficiency Co-Financing Program (HEECP)

**GEF Focal Area:** Climate Change

**Recipient Country:** Hungary

**GEF Financing:** US\$ 5.0 million

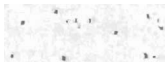
**Beneficiaries:** Hungarian private sector financial intermediaries; private sector energy efficiency businesses and energy end-users in all industrial, commercial and municipal sectors

**Terms:** Partial credit guarantees and technical assistance supporting eligible energy efficiency financing transactions

**Executing Agency:** International Finance Corporation (IFC)

**Estimated Starting Date:** February 1997

**Program Duration:** Four to Five years



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## **I. PROGRAM INTRODUCTION AND SUMMARY**

1. This Project Document summarizes the Hungary Energy Efficiency Co-Financing Program (HEECP or Program) to be implemented by the International Finance Corporation (IFC). The Program will utilize US\$5 million in funds from the Global Environment Facility (GEF). The Program's main objective is to build the energy efficiency (EE) financing capacity of domestic Hungarian financial intermediaries (FIs). EE projects include investments in efficient lighting (in all sectors), building and districting heating, boiler and control systems, motors and industrial process improvements. By promoting and supporting commercial financing of EE equipment and projects, the Program serves GEF's objectives to: (i) reduce greenhouse gas emissions, and (ii) create a self-sustaining EE project development and finance market, as mandated in the GEF's Operational Strategy climate change program on "Removing Barriers to Energy Conservation and Energy Efficiency".

2. The methods the Program will use are, first, the provision of partial credit guarantees to support EE financing transactions originated and funded by IFC's partner FIs themselves, and, second, provision of technical assistance. This will be the first use of GEF grant funds in a guarantee mechanism. IFC will use the GEF resources to facilitate and leverage private sector capital provided by the participating FIs, who in turn may use credit lines supplied by various domestic and international financial institutions (including as appropriate the US\$24 million in IFC's own credit lines or investments with Hungarian FIs as appropriate). IFC estimates that, under best case conditions using the US\$5 million in GEF funds, the HEECP will likely facilitate total EE investments of at least US\$25 million over its five year life. At the end of the five year period, under such a best case scenario, 85% of the GEF funds would be returned to the GEF Trust Fund. Leverage is achieved because the guarantees are partial and because each dollar in GEF resources may roll over to be applied to more than one transaction over the Program's life. The Program will also provide technical assistance support to participating FIs and private firms for marketing and delivery of EE financial services and preparation of specific EE investments. In these ways, the Program will promote development of a viable commercial EE market in Hungary. An analysis of the range of possible program performance parameters under market conditions is found in Schedule A. A further discussion of Program strategy to leverage GEF funds, and evidence that this leverage will be achieved, is provided in Appendix A.

3. The US\$5 million GEF funding is budgeted as follows: (i) guarantees for direct EE project financing support (85% or US\$4.25 million); (ii) technical assistance (6% or US\$300,000); and (iii) Program operations and administration (9% or US\$450,000). When a guarantee is made, Program monies will be reserved dollar-for-dollar to cover the guarantee liabilities. At the end of the Program's life, remaining funds will be returned by IFC to the GEF Trust Fund unless another approach is found to be warranted and approved by the GEF Secretariat.

4. The Program will be administered by IFC's Environment Division. Program operations are designed to gain experience with the EE financing market in Hungary, the particular FIs, and credit guarantee mechanisms. As the Program represents the first use of GEF grant funds for a guarantee mechanism, Program experience and successful use of the guarantee mechanism may eventually find effective application in Central and Eastern Europe and elsewhere.

5. IFC gave consideration to using competitive bidding procedures to allocate the available guarantee authority among eligible FIs. However, it was deemed that market conditions are not ready in Hungary at this time to introduce such procedures. However, following the program's pilot phase experience consideration will be given to such approaches in due course. In addition, following a successful pilot phase of Program operations, IFC is prepared to explore how a parallel IFC investment facility can be structured, allowing GEF funds to be further leveraged by IFC funds.

## **II. PROGRAM OBJECTIVES, BENEFITS AND RATIONALE FOR GEF FUNDING**

### **Specific Program Objectives and Benefits**

6. Specific objectives of the HEECP are to: (i) reduce credit risk on EE financing for eligible local FIs (making transactions possible and gaining credit approval for use of the FI's own funds); (ii) provide targeted technical assistance (in support of partner FI marketing and delivery of EE financing services and preparation of projects and programs for investment); (iii) reduce transaction costs borne by project participants; and (iv) provide or make possible longer term financing (to lower annual finance payments, finance longer payback "deep retrofit" projects and make EE projects more attractive to the end-user by allowing them to be self-financing from energy cost savings). The primary objectives of the HEECP will be reduction of credit risk and reduction of transaction costs.

7. Benefits from the HEECP activities include: (i) implementation of cost-effective EE projects; (ii) direct energy cost savings for energy users; (iii) entry and expansion of domestic FIs in the EE financing market; (iv) mobilization of domestic and international capital for EE; (v) documentation of the financial structure and environmental benefits of successful EE investments; and (vi) promotion of a sustainable, commercially viable EE financing market which can evolve to fully non-concessional finance methods. The Program is likely to provide pioneering experience of interest to the GEF. Anticipated lessons concern how to: (i) most effectively structure guarantee mechanisms; (ii) obtain maximum leverage in future uses of GEF funds; (iii) improve leverage over time as experience with EE financing is gained; and, (iv) expand and improve terms of commercial debt financing for EE by non-bank financing companies via the guarantee mechanism.

### **National and Global Environmental Objectives and Benefits**

8. Expanded investment in EE offers economic and environmental benefits including: (i) avoided capital costs for new power and transmission/distribution capacity; (ii) reduced foreign exchange costs for fossil fuel imports; (iii) reduced state deficits from direct and indirect energy costs; and (iv) cost-effective reductions of global greenhouse gas (GHG) emissions and local pollutants. The EE projects supported by the HEECP will generate global environmental benefits by reducing GHG emissions and assist Hungary in fulfilling its commitments under the U.N. Framework Convention on Climate Change (FCCC).

9. Analysis of initial EE projects indicates that Program support can be applied to gain carbon emissions reductions at costs ranging from US\$6-59 per ton of carbon. These

calculations assume that all Program resources are expended (i.e., that all reserves for credit guarantees are expended via exercise of the guarantees, an unlikely result). Assuming that all projects supported by the Program perform financially, the Program cost for carbon emissions reductions falls to US\$1-4 per ton of carbon. Total direct GHG emissions reductions achieved by the EE projects supported during the Program's GEF-funded pilot phase are estimated at 525,000 to 765,000 tons of carbon.

### **Rationale for GEF Funding**

10. HEECP responds directly to GEF's objective of seeking cost-effective means to reduce GHG emissions consistent with the mandates of the GEF Operational Strategy. Improving EE is a primary method for cost-effective control of GHG emissions and lack of adequate financing is the primary barrier to EE project implementation. HEECP can make possible financing for EE projects which would not otherwise be available from commercial sources under current conditions. In this Program, IFC will use GEF resources to demonstrate the viability of an innovative grant financing modality, the guarantee mechanism, to attract, facilitate and 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. GEF funds are being used via the guarantee mechanism to meet the incremental risks of commercial FIs associated with initiating EE investments.

11. It should be noted that a guarantee instrument, although it is a contingent financing approach, is still essentially a grant-based financing modality. This is as in the event IFC's 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 the range of possible incremental costs indicated in the incremental cost analysis provided as Appendix B. The incremental cost analysis has been prepared in a manner consistent with Council guidance on incremental costs.

## **III. BACKGROUND CONDITIONS AND PROGRAM CONTEXT**

### **Energy Economy and Policy**

12. Hungary's patterns of energy use are very inefficient due to historically low, subsidized energy prices and a centrally planned economy. Few incentives for efficiency existed in the former non-competitive economic environment. In 1992, energy intensity (total energy input to GDP value of output) in Hungary was over twice the average for western Europe. Annual total nationwide expenditures on energy approximated 600 billion Hungarian Forints or HUF (US\$4.2 billion) in 1994, representing almost 17% of GDP as compared with an average of 6-8% in OECD countries. Total primary energy use in 1995 was estimated to have been supplied 34% by natural gas, 31% by oil, and 21% by coal and other solid fuels. Total installed electric capacity



was 7.26 GW (1993). Sixty-two percent of electric capacity is provided by fossil-fuel based sources (with 29% by coal, 17% by oil and 16% by gas; 38% of capacity is provided by the Paks nuclear plant). Growth in electricity demand is expected to require net additions to capacity by the year 2000 to meet the needs of new light industry and residential consumers. Utility generation, transmission and distribution functions have recently been organized under separate companies and are being privatized. Hungary produces just over one-half of its primary energy requirements domestically (54% in 1993) from oil, gas, low calorific coal and lignite and nuclear power. Domestic production of oil and gas have peaked and are declining; oil and gas imports, generally from Russia which had provided these fuels at subsidized prices, represent a significant macroeconomic burden. In 1992, the public, commercial and residential sectors accounted for 46% of final energy consumption; industry for 31%; and transport for 16%. Heat, delivered as hot water or process steam to industry and district heating systems, represents 17% of final consumption, (compared to 2% average in OECD Europe and 14% in Denmark, the highest OECD country).

13. A national energy policy, prepared by the Ministry of Industry and Trade (MIT), was adopted by Parliament in 1993. Its priorities are: (i) diversification of supplies and reduced import reliance on Russia; (ii) emissions reductions and environmental protection; (iii) increased supply and demand side efficiency; (iv) mobilization of domestic and international capital for energy sector investment; and (v) increased awareness of efficiency and energy matters by the public and private firms. Energy price reforms were adopted in 1994 and require prices to rise to cover costs. Real energy prices have risen over 30% since 1995 will continue through 1997. National policy also requires implementation of peak load pricing beginning in 1997. Hungary is a ratified signatory to the FCCC and made its national communication under the FCCC in 1994. In December, 1995 the National Energy Efficiency Action Plan was formally adopted, which includes a requirement for utilities (electricity, gas, and district heating systems) to develop least cost planning and demand side management (DSM) programs. EE is a cornerstone of government energy and environmental policies.

#### **Capital Market Conditions and EE Financing Activities**

14. The Hungarian economy is emerging from a four year restructuring process and recession with the recovery being driven largely by private sector investment. The Hungarian Forint is now freely convertible though it has been subject to a steady devaluation of 1-1.5% per month over the last year. Hungary's capital markets have recently been dominated by Government borrowing to finance its fiscal deficit. Inflation accelerated in late 1994 and 1995 to 29%. Reducing the deficit has been the top priority for concerted Government policy. As a result, interest rates have been falling. Inflation for 1996 is projected to be 20%. Current short-term interest rates of the National Bank of Hungary are at 26% (having fallen from 30% since January 1, 1996). Rates for prime customers range from 28-30% and up to the 40% range for less creditworthy customers. As the government deficit falls, it appears Hungary has sufficient liquidity in its financial system to make domestic loans and medium-to-long term HUF-denominated financing will become more available. Hungary has a growing, sophisticated private financial sector which can use Program resources.

15. Since 1990, the state-owned Hungarian Credit Bank (HCB) has operated an EE financing program using monies granted from Germany and offering financing at well below (just over

50% of) commercial rates. This so-called German Coal Aid Fund (GCAF) has stimulated and demonstrated demand for EE financing far greater than its resources which are now fully committed. The European Commission (EC) PHARE program, in conjunction with the Hungary-EC Energy Centre, has proposed to establish an EE on-lending financing fund that will continue to offer below market rate financing on parity for up to 35% of a project's cost. The HEECP has been designed to complement the proposed EC-PHARE program and build on the experience of the GCAF by using a guarantee mechanism to encourage EE financing at commercial interest rate levels. IFC believes the proposed approach is a more appropriate path to the objective of achieving a sustainable commercial financing environment for EE transactions, than the reduced interest rate approach adopted by GCAF and the EC-PHARE program.

### **Energy Efficiency Potential**

16. Various estimates indicate a technical and economic potential to save 20-30% of total energy consumption through EE projects having simple payback periods of six years and less. Many projects have paybacks of two to three years at current price levels. The economic viability of EE projects will improve as real energy prices rise further to full cost-recovery levels in 1997. The economic potential for cost-effective EE investments has been estimated at 200-300 billion HUF (US\$1.4-2.1 billion). The Ministry of Environment 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. The MIT estimates indicate a need for up to US\$ 4 billion over the next ten years to raise Hungary's energy efficiency to OECD standards. Recently, nationwide investments in EE have been made at a rate of less than 2-3 billion HUF (US\$14-21 million) annually. Thus, there exists a serious EE investment gap. The most immediate and promising sectors for EE investment include district heating systems, municipal and institutional buildings including schools and hospitals, lighting in all sectors including industrial and commercial buildings and public outdoor lighting, and motors and process improvements in the industrial sector. Significant international donor effort has been expended to study and identify EE potential; the need and emphasis now in Hungary is on financing actual project implementation. Hence the priority in the Program's design is on stimulating commercial EE financing.

### **Financing Barriers to EE**

17. 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 at present; (iii) lack of collateral value of EE project equipment; (iv) lack of relevant expertise and capacity within domestic FIs; (v) relatively high transaction costs associated with EE project development and financing; (vi) lack of medium-to-long term financing which is needed to allow projects to be self-financing from energy cost savings; and, (vii) high interest rates which discourage borrowing even when EE projects are cost-effective.

18. Hungarian FIs have exercised extreme caution in their credit practices as economic restructuring affects weaker, uncompetitive and loss-making enterprises. FIs lend only to the best "blue-chip" credits and/or impose excess collateral requirements (up to 200% of loan amounts in liquid collateral) on their borrowers. This approach has reduced the availability of

credit to sound medium and small businesses and municipalities. Risk sharing and credit enhancement are good methods to apply to move the market in this context. Falling interest rates are reducing the cost of financing as a barrier; however, the credit and transaction cost barriers are severe and must be addressed to gain the economic and environmental benefits which EE investment offers. IFC's analysis indicates that domestic FIs can be induced to enter and expand their activities in this market if these barriers can be addressed. IFC's decision to focus on the credit risk and transaction cost barriers is designed to complement the EC-PHARE EE financing program which will offer below-market interest rate co-financing (IFC's guarantee agreements with participating FIs will prevent co-financing with the EC-PHARE program to avoid conningling GEF guarantees with a subsidized interest rate approach).

#### **IV. PROGRAM FINANCIAL SERVICES**

##### **Credit Support Mechanism**

19. The Program will provide credit support and technical assistance to participating Hungarian FIs. A minimum of two FI relationships are anticipated in the Program's pilot phase. The Program will leverage its resources by assuming incremental risk positions in support of EE financings undertaken by its FI partners. Over its life the Program would gradually modify its support, paralleling the developmental pathway to full commercialization. In providing credit support, the Program will be exposed to and share with the FI in the credit risk of the underlying EE financings. Guarantees will be provided on either a parity or a first loss basis and will cover either the proportional or first losses of the FI on the guaranteed transactions up to the percent of the transaction which is guaranteed. The credit guarantee participation percentage in any given project would typically range from 15-50% with a maximum of 50% and an average of 20-25% estimated. Participation percentages may be higher on initial transactions and can be lowered as experience is gained. Program credit support can be applied to portfolios of projects as portfolios are assembled. When credit risk is evaluated on a portfolio basis, and Program support is provided on a first loss basis, then lower guarantee percentages as low as 10-15% become meaningful creating greater leverage for GEF funds. Participating FIs will use the Program as a risk management tool to push their risk horizons and increase their EE financing activities.

##### **Guarantee Facility Agreement**

20. Credit support will be provided in the form of a Guarantee Facility Agreement between IFC and the participating FIs. Eligible EE projects will be proposed by the FIs. Following review and approval of the EE project, including its financial, credit and EE features, the project will be added to the Guarantee Agreement and made subject to the guarantee terms and conditions. Guarantee fees generally priced at 1% per annum of the guarantee limit of liability will be charged. The fee creates an incentive for FIs to allocate the guarantee resources where needed and allows the Program to earn income to be available to potentially offset some of its operational expenses or to supplement the technical assistance budget (see paragraph 26 on Program Budget). Under the Guarantee Facility Agreement, the FI will be responsible for managing all transactions post-closing and pursuing all collection remedies including repossession, liquidation of collateral and any legal action if necessary in event of default by their borrower. Because partial guarantees are used and the project financing derives from the FI's own capital, the FI has clear incentives to originate sound transactions and pursue all

collection remedies. This is a basic feature of Program operations. FIs will be required to comply with IFC environmental requirements and conduct appropriate environmental reviews of projects supported by the Program. Borrowers/lessees must also warrant and provide evidence demonstrating their compliance, or a plan to achieve compliance, with applicable Hungarian environmental laws.

### **Development of EE Transactions for Credit Support**

21. The FIs will have responsibility to originate, structure and perform due diligence and credit analysis on transactions. The typical transaction involves a loan or lease to the energy end-user or, in some cases, the project contractor or an energy services company (ESCO) may be the borrower, securing the financing with the payment obligation of the end-user under an energy services financing agreement. The primary method for the FI to market its financial services is through relationships with EE contractors, ESCOs, project developers and equipment manufacturing and sales companies. Once the contractor has identified cost-effective EE projects for an energy end-user, the contractor and/or the end-user would then seek project financing and approach the FI. The FI would conduct its analysis of the project including: (i) financial condition of the borrower/lessee; (ii) lending that can be supported on the borrower/lessee's general credit and for what term; and (iii) extra collateral which the borrower can offer. The financing requirements of the project -- total credit amount, term, cost of funds - will then be matched against what the FI can offer. The difference, in terms of needed extra credit support and any longer term financing, would constitute the incremental cost or financing "gap" which the FI would submit for Program credit support to IFC. IFC must concur or negotiate with the FI on the credit analysis, financing structure and terms of credit support. The ability of EE projects to be self-financing from energy cost savings strengthens, at the margin, the analysis of the end-user's ability to repay the financing. The Program guarantee can help the FI take this feature into consideration in its credit analysis which represents an aspect of Program additionality.

### **FI Appraisal and Selection**

22. To initiate a Guarantee Agreement, the Program will conduct an appraisal of the candidate FI, reviewing its financial condition, management, origination capacities, marketing capacities, credit procedures, commitment to and experience in the EE project and equipment sector, and other matters as reasonably required by IFC to assure prudent and successful use of Program credit support resources. Hungary's financial sector includes an active and growing leasing industry. Leasing offers a flexible, streamlined approach to equipment and small project finance and has been commonly used to finance EE projects in North America and Western Europe. The top two candidate FIs for the Program's pilot phase are both private leasing companies. Other candidate FIs have also been identified. IFC will select the participating FIs and negotiate a Guarantee Agreement with each one at the outset of the Program's operations.

### **Program Transactions**

23. The Program will support investments aimed at improving efficiency of energy use in buildings and industrial processes; where EE is not the sole or primary motivation for a project, support will be provided at a level that is justified by the EE benefits. Support will be for new

projects (not refinancing of existing projects), using proven technology and investments developed with appropriate energy studies and monitoring plans. Participants in all projects utilizing Program support will be required to cooperate in project monitoring concerning project performance, including energy savings, GHG emissions reductions and finance payment histories.

24. IFC's market research indicates that a sufficient flow of transactions can be generated for consideration by partner FIs and the Program. In general, participating FIs will market their EE financial services through relationships with EE companies including project developers, equipment manufacturers, engineers, contractors and ESCOs. The Program will seek a balanced mix of projects in the industrial, district heating and municipal sectors. Projects with public/municipal sector end-users generally will be undertaken with private sector ESCOs as the financing borrower/lessee to conform with IFC policies. Initial potential transactions include: (i) a large scale indoor EE lighting project in buildings operated by a major municipality (estimated to achieve 5 MW in load reduction); (ii) a series of EE streetlighting retrofits; (iii) a series of comprehensive EE retrofits for two district heating systems (which include meters, controls, heat recovery, boiler upgrades and insulation); and (iv) a three-phase US\$1.8 million process heating system upgrade for a manufacturing plant (which include controls, heat recovery, boiler upgrades and distribution system insulation). Project sponsors include domestic equipment, boiler and lighting manufacturers, domestic engineering and mechanical/electrical contracting companies, and international EE equipment manufacturers establishing local ESCOs. The interest of utilities to act as project sponsors will also be further explored.

### **Marketing and Technical Assistance Plan**

25. Program technical assistance monies will be used to support the marketing of EE financial services by partner FIs and prepare specific projects for investment. These efforts will help insure deployment of Program resources and avoid problems experienced by other funds, including prior World Bank energy sector credit facilities in Hungary, where resources have gone unused. Even prior to the formal launch of the Program, IFC is already having a positive influence in promoting the market. For example, in early 1996 the City of Budapest identified a cost-effective opportunity to replace its current indoor incandescent lighting with compact fluorescent lamps (CFLs). Due to limited capital funds, the City contemplated a phased implementation of this EE project over four years. IFC prepared an analysis of how lease financing can be used to accelerate project implementation, showing that a CFL retrofit project can be self-financing from energy cost savings and generate immediate positive cash savings. As a result, the City has issued a tender to procure the entire project using lease financing. Also, through its research, IFC has been effective in introducing EE contractors and equipment vendors to prospective financing sources and a number of potential transactions are now being proposed which can enter the Program's pipeline in due course. Once operational, the Program will accelerate these marketing activities. The Program will also undertake limited general EE market development work, for example, exploring development of utility EE financing programs and networking to help transfer to Hungary the best EE finance practices from international experience. Use of technical assistance funds for project monitoring and evaluation and GHG emissions reduction verification is also planned.

## V. PROGRAM MANAGEMENT PLAN

### Program Management and Supervisory Committee

26. Program management will be performed by IFC's Environment Division and a Supervisory Committee. The Supervisory Committee will convene to approve participating FIs and review transactions, FI reporting and policy questions as they arise. General management supervision and oversight of the Program will be provided by IFC's Environment Division. A local manager will be retained by IFC as a consultant to manage day-to-day Program operations in Hungary.

27. Management tasks include: (i) selection and development of Program/FI relationships; (ii) development of underwriting guidelines and review of EE project financing transactions; (iii) negotiation/documentation of Program/FI and project-specific agreements; (iv) fiduciary management of Program funds including asset/liability management, disbursements, collections, reinvestment, recordkeeping and reporting; (v) operation of the Supervisory Committee and Advisory Board (see below); (vi) provision of technical assistance, including for the development of EE projects and programs for financing; (vii) monitoring of Program transactions, including exercise of Program rights under the financing agreements and documentation of financial performance, energy savings and GHG emissions reductions; and (viii) evaluation activities. The central goal of the Program is building EE financing capacity of participating FIs.

### Program Budget

#### Budget Summary

A. Guarantees for Financial Intermediaries and Projects	\$4,250,000	85%
B. Administration	\$ 450,000	9%
C. Technical Assistance	\$ 300,000	6%
D. Total Program Budget	<u>\$5,000,000</u>	<u>100%</u>

#### Estimated Range of Program Income/Reflows

Guarantee Fees	\$ 70 - 120,000
Contingent repayment of technical assistance grants	<u>\$ 0 - 75,000</u>
Total Estimated Program Income/Reflows	\$ 70 - 195,000

28. GEF funds of US\$5 million will be used for three purposes: (i) direct EE project financing support via the guarantee mechanism; (ii) technical assistance; and (iii) Program establishment and administration. IFC believes that the level of administrative costs is appropriate and reasonable and economies have been sought in a number of areas. However, the administrative budget reflects the expectation that the Program will need to be actively managed over its five year expected life and that macroeconomic conditions in Hungary cannot be controlled (i.e., inflation remains quite high). Direct EE project financing support, channeled through domestic

FIs, will be provided in the form of credit guarantees discussed above. Technical assistance monies will be utilized by participating FIs for: (i) general support for staff and marketing EE project financing services; and (ii) project-specific support for preparation of EE financing transactions and programs. The FI will be required to match general support funds on a cost-sharing basis (generally at 50/50). Project-specific support will be applied for project investment preparation in the later stages of project development (not feasibility studies) and will be provided on a contingent loan basis (i.e., repaid upon closing of project financing).

29. Program income and reflows have been estimated above but are subject to significant uncertainty as to the amounts involved due to the timing of transaction guarantees and resulting fee income, performance of guaranteed transactions, and other factors. Fee income and other reflow amounts that accrue to IFC will be accounted for as a contingency reserve to be available to supplement the administrative and technical assistance budgets if required. Such an approach is deemed prudent by IFC management based on its operational experiences. In the event that such contingency reserves remain unexpended, they will be recredited to the GEF Trust Fund at the end of the Program unless another approach is found to be warranted and approved by the GEF Secretariat.

### **Program Reserves**

30. In its financial operations the Program will reserve monies dollar-for-dollar against all guarantee liabilities it assumes as reserves. If the transactions perform financially and the guarantees are never exercised, then these reserves would be available for use in supporting other investments in the Program. It is expected that the HEECP would have a minimum four year life for originating new transactions. After this time, any remaining funds would be returned by IFC to the GEF Trust Fund unless another approach is found to be warranted and agreed to by the GEF Secretariat. The Program will seek to maintain its principal value through its investment activities.

### **Risks**

31. 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 project financing prospects; and (iv) adverse changes in policy, energy price, macroeconomic and capital market conditions in Hungary. Of these, the credit risks 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. 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 the GCAF, 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 in an encouraging direction.



## **Advisory Board**

32. 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. HEECP 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, the Program will organize an Advisory Board consisting of representatives from relevant government agencies, NGOs, the EE industry, utilities and end-user associations with interests in EE project development and finance. The Advisory Board will be convened approximately semiannually to advise the Program on operational issues and promote its coordination with other national initiatives and policies. The Advisory Board is also a potential 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.

## **Implementation Schedule**

33. IFC will have its in-country Program manager hired and in place in early 1997. Preliminary negotiations are underway with potential partner FIs. Completion of the first Guarantee Facility Agreement is anticipated in early 1997. Appraisal of the second FI will be completed in the first quarter of 1997 and the second FI agreement concluded shortly thereafter. The first Advisory Board meeting will be convened early in 1997. Once operational, the Program will conduct its reviews of transactions proposed by the FIs and will commence its marketing and technical assistance activities. Initial transactions will be funded and guarantees issued starting in early 1997. A chronology of key Program milestones is provided in Appendix C.

## **VI. ACTIONS TO BE AGREED**

34. Following final GEF Council and CEO endorsement and IFC Management Approval, GEF funds will be transferred to IFC by the World Bank. Following disbursement of funds to IFC, Program implementation will proceed and FI agreements will be executed and EE transactions will be undertaken by the participating FIs as described previously. The Program will be managed so that guarantee liabilities never exceed the amount of funds reserved, net of all budgeted operating and technical assistance expenses.



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**VI. ACTIONS TO BE TAKEN**

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**IFC/GEF HUNGARY ENERGY EFFICIENCY CO-FINANCING PROGRAM (HEECP)**

**INDICATIVE RANGE OF PROGRAM PERFORMANCE, LEVERAGING, AND COST-EFFECTIVENESS: SCENARIO ANALYSIS**

**SCHEDULE A**

			Total Capital Cost of EE Projects	Average Annual Carbon Emissions Reduction Per \$1 Million EE Investment	10 Year Cumulative Carbon Emissions Reductions	Program Costs Per Ton Carbon Emissions Reduction
Scenario	Net Program Costs	Leverage	Supported			
Best Case	\$750,000	5:1	\$25,500,000	3,000	765,000	\$0.98
Medium Case	\$2,875,000	3:1	\$17,000,000	2,000	340,000	\$8.46
Worst Case	\$5,000,000	1:1	\$8,500,000	1,000	85,000	\$58.82

**NOTES: 1. Net Program Costs reflects performance of guaranteed transactions. Best case assumes no guarantees are called and guarantee capital is preserved; worst case assumes all guarantees are called and all guarantee reserves are expended.**

**2. Leverage reflects the ratio of total capital cost of EE projects supported by the Program to Program guarantee monies. See Appendix A, Program Leverage of GEF Funds.**

**3. Average carbon emissions reduction achieved will vary by type and performance of EE projects. These estimates are based on analysis of representative projects and estimates provided by Hungary Ministry for Environment and Regional Policy and the Hungary Ministry of Industry and Trade.**



## IFC/GEF HUNGARY ENERGY EFFICIENCY CO-FINANCING PROGRAM (HEECP)

### Appendix A Program Leverage of GEF Funds

IFC will use the GEF resources to facilitate and leverage private sector capital provided by the participating financial intermediaries. IFC estimates that, using the US\$5 million in GEF funds, the HEECP will facilitate total EE investments of US\$25 million or more over its five year life.<sup>1</sup> The Program will provide partial guarantees to support energy efficiency (EE) financing transactions originated and funded by IFC's partner financial intermediaries (FIs). The guarantee participation percentage in any given project would typically range from 15-50% with a maximum of 50% and an average of 20-25% estimated. (Participation percentages may be higher on initial transactions and can be lowered as experience is gained and portfolios of projects are assembled.)

Thus, the Program's primary leverage comes from financial participation of partner FIs. Of the US\$5 million in GEF funding, US\$750,000 is budgeted for Program operations and technical assistance, primarily for preparation of EE investments. Thus, US\$4.25 million is available for guarantee support of EE projects. Leverage is achieved because the guarantees are partial and because each dollar in GEF resources may roll over to be applied to more than one transaction over the Program's life. If all guarantees are provided at the 50% level, and the GEF funds are used only once and the guarantees are in fact called, then the program's minimum possible leverage effect would be 1:1 and an additional US\$4.25 million would be mobilized. This is however considered unlikely. In contrast, IFC expects the average level of guarantees to be closer to 25%, allowing for 4:1 to 5:1 leverage, and for at least a portion of the GEF funds to roll over and be used on more than project over the life of the Program. Additional leverage will also be achieved by capital contributions to EE projects provided from the energy end-users and EE business sponsors. Therefore, IFC now estimates that the Program will facilitate total EE investments of US\$25.5 million over its five year life.

IFC has identified several interested partner FIs and has conducted preliminary negotiations to establish an initial FI relationship. A letter from this candidate FI has been obtained which expresses their intent to proceed with negotiations of a Guarantee Facility Agreement when IFC secures the GEF funding. This communication represents specific evidence that the leveraging strategy underlying Program development is viable and will be implemented as intended.

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<sup>1</sup> It should be noted that GEF's funds may also leverage some of the funds which IFC has already invested in Hungary's capital markets (a total of \$24 million is already in place as lines of credit or investments with various Hungarian FIs -- however such funds are unlikely at present to be utilized for EE investment purposes for the reasons outlined in the earlier project document).



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# IFC/GEF HUNGARY ENERGY EFFICIENCY CO-FINANCING PROGRAM (HEECP)

## Appendix B Incremental Cost Analysis

### 1. Broad Development Goals and the Baseline

The relevant broad developmental goal of Hungary is the efficient provision of energy services. HEECP is designed to remove barriers to financing and implementation of EE projects and to reduce the incremental risks faced by FIs in undertaking such financings. The EE projects supported by the HEECP will generate global environmental benefits by reducing GHG emissions and assist Hungary in fulfilling its commitments under the FCCC.

Expanded investment in EE offers national economic and environmental benefits for Hungary including: (i) avoided capital costs for new power and transmission/distribution capacity; (ii) reduced foreign exchange costs for fossil fuel imports; (iii) reduced state deficits from direct and indirect energy costs; and (iv) cost-effective reductions of global GHG emissions and local pollutants.

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<sub>2</sub> emission reductions of 4710 Gg per year. (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 HEECP will facilitate, have been used for guidance purposes in preparation of this incremental cost analysis. Therefore the baseline for Hungary is assumed to be represented by the BAU scenario whereby a maximum of US\$20 million per year is invested in EE investments. Over a five year period this is assumed to equal US\$100 million absent the Program.

### 2. Global Environmental Objectives

Total CO<sub>2</sub> emissions for the year 2000 in the baseline BAU scenario are projected to be 73,451 Gg in Hungary for all sectors. Achievement of the ES scenario, to which the Program will contribute, is

expected to reduce this value to 68,741 Gg for a reduction of 6.5% or 4,710 Gg/yr of CO<sub>2</sub> emissions (1.27 million metric tons of carbon).

The HEECP is estimated to facilitate a maximum amount of EE investment of US\$25.5 million over five years from projects directly supported by the HEECP. Thus, it will achieve 5.92% of the Plan's ES scenario or 279 Gg/yr of CO<sub>2</sub> emissions reductions (.0592 X 4710 Gg/yr of CO<sub>2</sub>). Converting from CO<sub>2</sub> to C (X 0.27), this value equates to 75.3 Gg/yr or 75,000 metric tons of carbon emissions reductions per year. Over their lifetime, conservatively assuming an average life of EE investments of seven to ten years, these EE investments are estimated to generate from 525,000 metric tons to 765,000 of carbon emission reductions. Under a worst case scenario as presented in Schedule A, cumulative carbon emission reduction funded by the Program are expected to total no more than 85,000 metric tons.

### **3. Alternative**

The proposed GEF alternative, 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 3 billion HUF (US\$20 million) annually. Thus, there exists a serious EE investment gap.

The Program's main objective is to build the EE financing capacity of domestic Hungarian financial intermediaries (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.

### **4. Scope of the Analysis**

The GEF Alternative will primarily affect the participants in current EE investment projects, including the FI partners, the businesses which deliver the EE equipment, projects and services, and the energy end-users whose equipment and facilities are improved. In general, increased EE investment will shift production, investment and consumption patterns away from current energy supply patterns and toward efficient use. Macroeconomic studies in North America and Western Europe indicate that such a shift can result in increased employment opportunities, all other things being equal. Reduction in energy imports into Hungary may also result, with consequences outside the national boundary. No other adverse consequences are foreseen.

In addition to the macroeconomic benefits cited above, expanded investment in EE will contribute to reduced local and regional air pollution and its related economic, social and health benefits; economic development and job creation for domestic equipment manufacturing; mechanical and electrical contracting, engineering services and financial services firms; and accelerated transfer of EE technologies.

## 5. Costs

The costs of the EE investments facilitated by the HEECP are estimated US\$25.5 million (under best case assumptions). As presented earlier in Schedule A, Program costs may range from US\$0.75 million (under the best case assumptions if all guarantee funds are returned) to US\$5 million (under worst case assumptions if all guarantees are used). The Program will support implementation of EE projects which would likely not otherwise be implemented due to institutional and financial barriers and the incremental risks perceived by FIs.

In accordance with the guidance of the FCCC, the GEF approach on incremental costs requires that the incremental costs incurred in this project be financed in full. Estimates of incremental cost, and their incidence, form the basis for the amount of grant (or grant equivalent) made available by GEF. These are discussed further below.

There are two categories of incremental costs to be met by the Program: (i) FI direct incremental costs; and (ii) FI incremental risks. In the case of (i) these are additional costs incurred by IFC and participating FIs associated with the Program (additional costs of Program administration, training, and new procedures) and higher FI administrative costs associated with processing and supervising an unfamiliar portfolio of EE investments; many of which are also smaller transactions (implying higher development costs). Such costs are entirely consistent with the GEF's Operational Program #5 on barrier removal. In the case of (ii) FIs perceive that additional financial losses may occur as a result of the inherent riskiness of EE investments (most of which are viewed as unsecured loans due to lack of collateral value of EE equipment). The baseline would be the FIs appraisal of its required overcollateralization or risk-adjusted interest rate in order to make EE investments.

The modalities for utilizing and transferring the requested US\$5 million in GEF funds and the terms and conditions controlling their use have been developed on the basis of : (i) the regular ways that IFC and the participating FIs conduct business with the private sector; (ii) relating the grant element of the financing to the incremental cost; (iii) provide commercial incentives to encourage financial innovations in the interest of the global environment combined with appropriate risk management in the interests of cost-effectiveness, financial sustainability, and future replicability; and (iv) ensuring that GEF funds will in no case be used to exceed the "financing gap" (the amount of required credit support/enhancement via a guarantee that cannot be otherwise obtained from commercial sources).

The direct incremental costs associated with the Program will be financed in several ways. The US\$0.75 million in administrative costs and technical assistance represents the direct incremental costs of IFC and the participating FIs to participate in the Program and will not be recoverable. The costs of technical assistance and project-specific support to participating FIs will be financed directly by the Program (with general support funds to be provided on an 50/50 cost-sharing basis). It is expected that as the participating FIs become familiar with EE financing through this program that the level of incremental costs will decline and no longer require Program support.

The second category of incremental cost to be met by the Program is the FI's incremental risk. Local Hungarian FIs are not generally making private sector EE investments at present for the reasons elaborated earlier in this project document. Thus such EE transactions cannot easily attract



commercial financing due to their perceived level of risk (due to unsecured loan nature of many of these investments). In normal circumstances a local FI would require severe overcollateralization or much higher than market interest rates, but in doing so it would discourage ESCOs and other private EE investment sponsors from securing financing. The Program proposes to use US\$4.25 million in GEF funds as a partial guarantee mechanism to provide a sufficient incentive to mobilize commercial financing for EE investments from participating FIs.

As documented earlier in Schedule A, under a best case scenario 100% of the GEF funds used to cover the incremental risks of participating FIs would be returned to the GEF and thus the full incremental costs of the incremental risk would be zero (i.e. as the funds will be returned to GEF). In contrast, under a worst case scenario 100% of the guarantee funds would be utilized by the participating FIs against covered transactions and the amount of total incremental cost to GEF to cover the incremental risk (and the direct incremental costs discussed earlier) will be US\$5 million.

There is no firm basis for estimating a priori the amount of actual incremental cost to be met by the GEF funds under the Program. It will be only after a period of Program performance (3-5 years) that good information on actual outcomes will be available.

## **6. Incremental Cost Matrix**

Attached is an Incremental Cost Matrix and its accompanying notes. The matrix values reflect the incremental cost discussion above and the information provided earlier in Schedule A. It should be noted that the estimates of carbon emission reduction only account for projects directly supported by the Program and do not include emissions reductions resulting from EE projects indirectly induced by the Program's catalytic activities and its contribution to creating a sustainable EE finance market.

## **7. Process of Agreement**

The primary technical counterparts for Program implementation are the partner FIs. The amount of EE investments which the Program will facilitate has been estimated in consultation with prospective FI partners. The general structure and terms of the proposed agreements with Program FI partners, the manner of reaching agreement and the manner for development and origination of transactions are described more fully in the Project Document (see paragraphs 19-25).

**IFC/GEF HUNGARY ENERGY EFFICIENCY CO-FINANCING PROGRAM (HEECP)**

**APPENDIX B - INCREMENTAL COST MATRIX**

	Baseline	Alternative	Increment
Global Environmental Benefit	138.6 - 198 million MT/C <sup>1</sup>	138.1 - 197.2 million MT/C <sup>2</sup>	525,000 - 750,000 MT/C <sup>3</sup>
Domestic Benefit	Energy Demand Satisfied	Energy Demand Satisfied	0
Costs (expenditure items)			
-EE Investments		US\$108.5-125.5 million <sup>5</sup>	0-US\$4.25 million <sup>6</sup>
-Tech Assistance/Adm Costs	US\$0.75 million	US\$0.75 million	US\$0.75 million
Total	0	US\$109.25-126.25 million	US\$0.75-5 million
Notes:			
1. Baseline emission level assumed from MERP BAU scenario as 73.4 million metric tons of CO <sub>2</sub> per year which converts to 19.8 million metric tons of carbon per year multiplied by the seven to ten years over which Program benefits are expected to occur.			
2. Baseline emission ranges less the increment provided by Program funds under best case scenario.			
3. Assumes Program is responsible for a proportionate percentage of MERP ES scenario equaling 75,000 MT/C reduction per year multiplied by seven and ten years.			
4. Assumes a baseline of US\$20 million in EE investments per year under MERP BAU scenario for five years added to an unknown			
5. Assumes that a possible range of Program outcomes from \$US4.25 million to \$US25.5 million in new EE investment activity is stimulated by the GEF Alternative with these new EE investments drawn from the liquidity of existing investment funds in Hungary and that the US\$100 million BAU EE investments also occur.			
6. The incremental costs to be met by GEF funds can range variously from: (i) zero if the best case scenario transpires (see Schedule A) and all guarantee funds are returned to GEF; to (ii) US\$4.25 million under the worst case scenario if all guarantees are called and the GEF grant funds used as guarantees are not returned. Thus, it should be noted that the zero value corresponds to the US\$125.5 million alternative and the US\$4.25 million value corresponds to the US\$108.5 million alternative and that a range of outcomes is possible based on degree of leverage and the level of guarantee utilized.			





## HUNGARY ENERGY EFFICIENCY CO-FINANCING PROGRAM

### Appendix C

#### Timetable of Key IFC/GEF Program Development Events

Fall, 1995	Concept development and initial contacts in Hungary
January/February, 1996	Pre-Appraisal mission conducted
February 8, 1996	GEF Project Brief submitted by IFC
April 2-4, 1996	GEF Council provides initial approval of Program concept
April/May, 1996	Appraisal mission conducted
June, 1996	Program Appraisal Report prepared
July 11, 1996	IFC Management Pre-Decision Meeting conducted to review Program
September 16, 1996	IFC Management Decision Meeting conducted to approve Program; IFC management decides to proceed with implementation on September 27, 1996
October, 1996	First pre-implementation mission conducted
January, 1997	Final GEF Program Document submitted by IFC to GEF Council requesting final endorsement
Anticipated future events are as follows:	
February, 1997	Final IFC Management Approval and GEF disbursements requested and made
February, 1997	Program Manager hired and located in Budapest
February, 1997	First financial intermediary agreements reached and executed
March, 1997	Transaction(s) submitted for guarantee support; on-going activity
March, 1997	Marketing and technical assistance program begun; on-going activity
April, 1997	Second financial intermediary agreement reached and executed
April, 1997	Transaction guarantee(s) issued; on-going activity
May, 1997	Advisory Board formed and holds first meeting

HUNGARY ENERGY EFFICIENCY CO-FINANCING PROGRAM

Appendix C

Timeline of Key IFC/GEF Program Development Events

Concept development and initial contacts in Hungary	Feb. 1995
Pre-Appraisal mission conducted	January-February 1996
GEF Project Brief submitted by IFC	February 8, 1996
GEF Council provides initial approval of Program concept	April 2-4, 1996
Appraisal mission conducted	April-May 1996
Program Appraisal Report prepared	June 1996
IFC Management Pre-Decision Meeting conducted to review Program	July 11, 1996
IFC Management Decision Meeting conducted to approve Program; IFC management decides to proceed with implementation on September 27, 1996	September 16, 1996
First pre-implementation mission conducted	October 1996
Final GEF Program Document submitted by IFC to GEF Council regarding final endorsement	January 1997
Anticipated future events are as follows:	
Final IFC Management Approval and GEF disbursement requested and made	February 1997
Program Manager hired and located in Budapest	February 1997
First financial intermediary agreements reached and executed	February 1997
Transaction(s) submitted for guarantee support; on-going activity	March 1997
Marketing and technical assistance program begins; on-going activity	March 1997
Second financial intermediary agreements reached and executed	April 1997
Transaction guarantee(s) issued; on-going activity	April 1997
Advisory Board formed and holds first meeting	May 1997