GEF EO Terminal Evaluation Review – ID 883

1. PROJECT DATA				
			Review date:	1/28/2010
GEF Project ID:	883		at endorsement (Million US$)	at completion (Million US$)
IA/EA Project ID:	P068062	**GEF financing:**	10.32	10.03
Project Name:	Energy Efficiency GEF Project	IA/EA own:	0	3.43
Country:	Romania	Government:	0	0
		Other*:	24	22.76
		Total Cofinancing	24	26.19
Operational Program:	OP 5 (Removal of Barriers to Energy Efficiency and Energy Conservation)	**Total Project Cost:**	34.32	36.22
IA	The World Bank	Dates		
Partners involved:	Romania Energy Efficiency Fund (FREE)	Effectiveness/ Prodoc Signature (i.e. date project began)		February 2003
		Closing Date	Proposed: December 2007	Actual: June 2008
Prepared by: Rajesh Koirala	Reviewed by: Neeraj Negi	Duration between effectiveness date and original closing (in months): 58	Duration between effectiveness date and actual closing (in months): 64	Difference between original and actual closing (in months): 6
Author of TE: Jeremy Levin (Primary author)		TE completion date: June 2009	TE submission date to GEF EO: June 2009	Difference between TE completion and submission date (in months): 0 months

* Other is referred to contributions mobilized for the project from other multilateral agencies, bilateral development cooperation agencies, NGOs, the private sector and beneficiaries.

2. SUMMARY OF PROJECT RATINGS AND KEY FINDINGS

Please refer to document GEF Office of Evaluation Guidelines for terminal evaluation reviews for further definitions of the ratings.

Performance Dimension	Last PIR	IA Terminal Evaluation	IA Evaluation Office evaluations or reviews	GEF EO
2.1a Project outcomes	S	S	S	S
2.1b Sustainability of Outcomes	**N/A**	Moderate risk	Moderate risk	ML
2.1c Monitoring and evaluation	**S**	**--**	Substantial	S
2.1d Quality of implementation and Execution	**NA**	**NA**	NA	S
2.1e Quality of the evaluation report	**N/A**	**N/A**	S	S

2.2 Should the terminal evaluation report for this project be considered a good practice? Why?
Yes. The ICR presents excellent discussion project's achievements and efficiency, and experiences into account in designing and implementing this project. It thoroughly examines project implementation, lessons learned and monitoring and evaluation.

2.3 Are there any evaluation findings that require follow-up, such as corruption, reallocation of GEF funds, mismanagement, etc.?
No such instances have been recorded in the ICR.

3. PROJECT OBJECTIVES

3.1 Project Objectives

a. What were the Global Environmental Objectives of the project? Were there any changes during implementation?

According to the project appraisal document, the global environmental objective of the project was *"to improve the knowledge and the availability of mechanisms necessary for financiers and energy consumers to fund viable energy efficiency projects by removing barriers and lowering transaction costs."*
As per the information provided in the ICR, there was no change in the global environmental objective.

b. What were the Development Objectives of the project? Were there any changes during implementation? (describe and insert tick in appropriate box below, if yes at what level was the change approved (GEFSEC, IA or EA)?

According to the project appraisal document the development objective of the project was *"to enable companies in the industrial sector and other energy consumers to adopt and utilize energy-efficient technologies, financed under commercial criteria by the Romanian Energy Efficiency Fund (FREE) and co-financiers."*

According to the terminal evaluation, there was no change in the project's development objective.

Overall Environmental Objectives	**Project Development Objectives**	**Project Components**	**Any other (specify)**

c. If yes, tick applicable reasons for the change (in global environmental objectives and/or development objectives)

Original objectives not sufficiently articulated	**Exogenous conditions changed, due to which a change in objectives was needed**	**Project was restructured because original objectives were over ambitious**	**Project was restructured because of lack of progress**	**Any other (specify)**

4. GEF EVALUATION OFFICE ASSESSMENT OF OUTCOMES AND SUSTAINABILITY

4.1.1 Outcomes (Relevance can receive either a satisfactory rating or a unsatisfactory rating. For effectiveness and cost efficiency a six point scale 6= HS to 1 = HU will be used)

a. Relevance **Rating: S**

According to the project appraisal document, the project is consistent with the GEF Operational Program 5, Removal of Barriers to Energy Efficiency and Energy Conservation. The project objectives and intended outcomes concur with the government efforts on energy efficiency. According to the document, Romania is one of the highest energy intensity and GHG intensity countries in Central and Eastern Europe. The intensities are five to ten times higher than that of UK, France, and the United States. The government targets to stabilize CO2 emissions after 2000 at the 1989 level. It ratified the Global Climate Change Convention in June 1994, and enacted an energy efficiency law in December 2000. The law, which conforms to the Energy Charter Treaty and the World Bank's Country Assistance Strategy for Romania, seeks to decrease the energy intensity of the Romanian economy, introduce new technologies and new energy sources, and reduce the environmental impact.

b. Effectiveness **Rating: S**

The project succeeded in achieving all of its targets: investment in energy efficiency projects, emission reduction of CO_2 and Green House Gases (GHG), and energy saving.

Based on information presented in the terminal evaluation, a total of US$34.19 million was invested through 20 loan contracts throughout the project period. Out of this Romania Energy Efficiency Fund (FREE) invested US $11.4 million, commercial banks invested US $8.6, and the clients invested US$ 14.2 from own resources. All loans were being returned without any late payments or defaults. Until June 2008, payback period of 12 projects was 3.5 years.

The project introduced technologies that replaced old energy generation equipments (boilers, CHP, hydro, geothermal) and modernized process industry equipments and public lightings. With the completion of 16 investment projects until the end of 2008, according to the terminal evaluation, a total of 183, 237 tons of CO_2 emission was avoided during the period 2003-2007. At the current level of energy savings (during the ICR), the equivalent of the GHG reductions resulting from these sub-projects' CO_2 emission reduction was estimated to be 2.18 million tons of CO_2e (the target of GHG reductions was 1.7 million tons of CO_2e over lifetime of investments). The completed projects by the end of 2007 saved about 36,533 toe (tons of oil equivalents) energy.

The project proved to be successful in demonstrating a public-private-partnership and raising awareness and interest of local banks for financing on energy efficiency. These achievements could lead more financing on energy sector as well as in other sectors related to GHG emissions reduction. According to the ICR, the project's experience and lessons would help to deal with the large and untapped potential for energy efficiency and Romania's policy commitments (e.g. EU's 20-20 targets).

c. Efficiency (cost-effectiveness)	**Rating: S**
According to the terminal evaluation, due to better than expected energy savings performance almost all projects received higher financial returns than estimated at project appraisal. Internal rates of return (IRRs) of sub-project were attractive to the borrowing enterprises, which ranged from 11-69%. The cost of the avoided emission of CO_2 of 12 completed projects was \$0.91/ton (i.e. \$1.0 million/1.1 million tons of CO_2) and of 16 projects completed would be \$0.45/ton (i.e. \$1.0 million/2.18 million tons of CO_2). Moreover, it was intended in the project appraisal document that 100% of operating and fund management costs would come from own revenue, and it was achieved at the level of 115%.	

4.1.2 Impacts: summarize the achieved intended or unintended impacts of the project.

At the current level of energy savings (during the ICR), the equivalent of the GHG reductions resulting from these sub-projects' CO_2 emission reduction was estimated to be 2.18 million tons of CO_2e (the target of GHG reductions was 1.7 million tons of CO_2e over lifetime of investments). The completed projects by the end of 2007 saved about 36,533 toe (tons of oil equivalents) energy.

4.2 Likelihood of sustainability. Using the following sustainability criteria, include an assessment of **risks** to sustainability of project outcomes and impacts based on the information presented in the TE. Use a four point scale (4= Likely (no or negligible risk); 3= Moderately Likely (low risk); 2= Moderately Unlikely (substantial risks) to 1= Unlikely (High risk)). The ratings should be given taking into account both the probability of a risk materializing and the anticipated magnitude of its effect on the continuance of project benefits.

a. Financial resources	**Rating: ML**
The clients who took loan from FREE are repaying and the fund is available for a new round of clean energy investments. However, ICR notes that FREE can only continue to finance expenditures only to the extent possible from its income from the project. Since FREE's income from energy efficiency projects is modest, the repayments will allow only small amounts in new lending every year (about US\$2.5 to US\$3.0 million). The ICR states, "without new funds and renewed business development activity, FREE's sustainability is uncertain at this time."	
b. Socio political	**Rating: ML**
Although local banks, commercial banks, and project sponsors are interested in energy efficiency lending market, commercial banks insist on high and often liquid collateral, which has discouraged FREE clients to accept their offer of funds. Moreover commercial banks appear to be reluctant to lend to certain energy efficiency markets, where the needs for energy savings and financial supports are large, such as residential and public buildings and municipal sectors.	
c. Institutional framework and governance	**Rating: L**
According to the ICR, the Government of Romania has expressed commitment and established institutions to improve energy efficiency to reduce the energy intensity of the economy, protect the environment and contribute to sustainable development. FREE has a functioning institutional and operational set up and the government has authorized FREE to continue new projects through the use of repaid funds. The government also indicated that FREE would facilitate to access to EU assistance for energy.	
d. Environmental	**Rating: L**
Based on the information available in the ICR, there seem to have no environmental risk.	

4.3 Catalytic role

a.. Production of a public good Based on the evidence presented in the ICR, it may be concluded that the project helped to reduce the production cost of the goods and lowered the market price by promoting use of energy efficient technologies. Energy Service Companies, suppliers of energy efficiency equipments to the sub projects, benefited from increased sales. The project created jobs for people with diverse sets of skills. It contributed to reduction of energy import and air pollution abatement. Through enterprise sector reform, the project promoted economic growth of Romania.
b.. Demonstration
c.. Replication Encouraged by the success of this project, the Energy Efficiency Financing Facility, a new project of Euro 95 million financed by EBRD and co-financed by EU, is being implemented in Romania with the participation of leading local commercial banks. The IFC is also planning to enter into the energy market.
d.. Scaling up

4.4 Assessment of processes and factors affecting attainment of project outcomes and sustainability.

a. Co-financing. To what extent was the reported co-financing (or proposed co-financing) essential to achievement of GEF objectives? Were components supported by co-financing well integrated into the project? If there was a difference in the level of expected co-financing and actual co-financing, then what were the reasons for it? Did the extent of materialization of co-financing affect project's outcomes and/or sustainability? If it did, then in what ways and through what causal linkages?
The project appraisal document reported expected co-financing of US$24 million. In comparison the project received US$26 million through co-financing, including the clients internal resources of US $14.2 million. FREE's clients used their own sources for small projects, and worked with the local banks for relatively large projects. Four large projects got offers of a total of US$18.2 million from three commercial banks, but only one client accepted aboutUS$8.6 million. Not all offers were accepted because of the high collateral requirements. Overall, clients and commercial banks financed 66.6% of the US$34.2 million total investments for 18 projects. Based on the ICR, it is clear that the project would not have been successful at the same level if the co-financing had not been materialized. As stated in the ICR, having only one financier is "detrimental" for the sustainability of financing on energy market in Romania because of limited financing capacity of FREE.
b. Delays. If there were delays in project implementation and completion, then what were the reasons for it? Did the delay affect the project's outcomes and/or sustainability? If it did, then in what ways and through what causal linkages?
The project completion was extended by six months from December 2007 to June 2008 to disburse all loans previously committed. This delay had no negative effect on project's outcome and sustainability.
c. Country Ownership. Assess the extent to which country ownership has affected project outcomes and sustainability? Describe the ways in which it affected outcomes and sustainability highlighting the causal links.
According to the terminal evaluation, the country ownership played significant role in project outcomes. In October 1999, the Prime Minister and the Cabinet of Ministers requested the Bank to prepare a GEF-funded energy efficiency project. Subsequently, Ministry of Environment requested the Bank to execute a PDF-B grant. Following this, the government formed a high level Working Group involving public and private sectors. The Group reviewed project preparation progress and provided comments and guidance, and finalized the projects output agreeable to the Bank and the Group. The new government that took power in 2001 also collaborated with the Working Group and established FREE including representatives from Ministry of Economy and Ministry of Environment, through an emergency ordinance. Although the project performance at the initial stage was "weak", the government opted to continue the project rather to cancel it. The government officials worked closely with the Bank and FREE.

4.5 Assessment of the project's monitoring and evaluation system based on the information in the TE

a. M&E design at Entry Rating (six point scale): S
The M&E design included SMART indicators, specific targets, and baseline information to measure the performance of the project. According to the operational set up mentioned in the project appraisal document, FREE was required to submit quarterly progress reports focusing on financial, technical and institutional aspect of the project to the Bank, within 45 days of end of each quarter. The design also included a time bound provision of mid-term review and terminal evaluation to be conducted by the implementing agency.
b. M&E plan Implementation Rating (six point scale): S
FREE regularly collected data on key indicators such as energy saving and CO_2 emissions from each of the sub project, and used them to compare the performance against the targeted values. FREE timely submitted quarterly progress reports to the Bank. As part of M&E, it also prepared annual environmental reports and regular financial monitoring reports.
b.1 Was sufficient funding provided for M&E in the budget included in the project document? UA
b.2a Was sufficient and timely funding provided for M&E during project implementation? UA
b.2b To what extent did the project monitoring system provided real time feed back? Was the information that was provided used effectively? What factors affected the use of information provided by the project monitoring system? According to the ICR, FREE adjusted interest rates and expanded upper limits for loan size based on the information obtained from the M&E. FREE also utilized M&E information to develop success stories for outreach activities. The mid-term review provided two urgent recommendations: to improve self financing prospect by realigning revenues and expenses, and to strengthen fund manager's function of outreach to Romanian enterprises and improve project benefits. As mentioned in the ICR, the executing agency quickly implemented recommendations, which led substantial progress of the project.
b.3 Can the project M&E system (or an aspect of the project M&E system) be considered a good practice? If so, explain why. Yes. M&E information from quarterly progress reports provided feedback to FREE and the Bank on issues related to project implementation and project outcomes. The feedback contributed FREE, the government and the Bank focus on resolving issues and on achievement of the project objectives. Information obtained from M&E was also used to

prepare success stories which helped in outreach activities. The ICR cites FREE stating that the success stories were most important tools to attract new clients.

4.6 Assessment of Quality of Implementation and Execution

a. Overall Quality of Implementation and Execution (on a six point scale): S

b. Overall Quality of Implementation – for IA (on a six point scale): S

Briefly describe and assess performance on issues such as quality of the project design, focus on results, adequacy of supervision inputs and processes, quality of risk management, candor and realism in supervision reporting, and suitability of the chosen executing agencies for project execution.

The project design specifies arrangements for project execution, financial management and procurement, risk mitigation, exit strategy, disbursement, supervision and M&E. Moreover, the implementing agency took into consideration lessons from energy efficiency projects from other parts of the world. For example it encouraged participatory framework involving stakeholders and direct beneficiaries in the decision-making processes, and reduced governance interference in decision making process.

According to the ICR, the IA (the World Bank) played a substantial supervisory role. When the executing agency was revising fund manager's role and adjusting to business plan to overcome difficulties faced by the project, the Bank carried out five field supervision missions over 18 months during 2003-04 for close monitoring and intensive supervision. The Bank role was instrumental in encouraging the FREE to mainstream local expertise in the project. IA continued the same task team from project inception through completion, which engendered consistency, depth and follow-up in the supervision. The Implementation Status Reports (ISRs) included realistic rating of the project performance, and provided feedback for improvement.

c. Quality of Execution – for Executing Agencies[1] (rating on a 6 point scale): S

Briefly describe and assess performance on issues such as focus on results, adequacy of management inputs and processes, quality of risk management, and candor and realism in reporting by the executive agency.

The executing agency (FREE) focused on achievement of expected results. It was intended in the project appraisal document that 100% of operating and fund management costs would come from own revenue, and it was achieved at the level of 115%. It disbursed all of US $18 million loan and was able to get repaid from the borrowers. FREE closely collaborated with relevant ministries (finance, economy and environment). When the executing agency experienced difficult time in early stage 2002 – 2004, it corrected the situation by revising the contract of fund manager to increase the interaction with local expertise and clients. It also developed "a more robust business plan." FREE prepared quarterly progress reports, annual environmental reports and regular financial reports, and submitted them to the Bank. According to the IEG review, FREE had comprehensive set of accounting policies, sufficient internal control and security for financial management. It fully complied with the Bank's safeguards and fiduciary policies.

5. LESSONS AND RECOMMENDATIONS

Assess the project lessons and recommendations as described in the TE

a. Briefly describe the key lessons, good practice or approaches mentioned in the terminal evaluation report that could have application for other GEF projects

The ICR provides following five lessons learned from this project:

1. Transaction costs for energy efficiency projects remain high, and clients require considerable support before large scale energy efficiency project implementation, such as for feasibility studies and structuring attractive financing.
2. Local knowledge of industry and market is very important to ensure success, and integration of local expertise into the project contributes it to be more cost effective.
3. A strong and reliable pipeline of initial project needs to be ready prior to project appraisal to ensure early success of energy efficiency partnership project.
4. The original Fund Manager's contract structure should be weighted more towards performance, with enough flexibility for readjustment.
5. For small demonstration projects like this, the institutional design of an implementing agency should be simple, but should consist of the fiduciary controls and checks and balances, which are attractive features for scaling up with both public and private capital.

b. Briefly describe the recommendations given in the terminal evaluation

No recommendation is presented in the ICR.

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[1] Executing Agencies for this section would mean those agencies that are executing the project in the field. For any given project this will exclude Executing Agencies that are implementing the project under expanded opportunities – for projects approved under the expanded opportunities procedure the respective executing agency will be treated as an implementing agency.

6. QUALITY OF THE TERMINAL EVALUATION REPORT

6.1 Comments on the summary of project ratings and terminal evaluation findings based on other information sources such as GEF EO field visits, other evaluations, etc.
N/A

Provide a number rating 1-6 to each criterion based on: Highly Satisfactory = 6, Satisfactory = 5, Moderately Satisfactory = 4, Moderately Unsatisfactory = 3, Unsatisfactory = 2, and Highly Unsatisfactory = 1. Please refer to document GEF Office of Evaluation Guidelines for terminal evaluations review for further definitions of the ratings. Please briefly explain each rating.

6.2 Quality of the terminal evaluation report	Ratings
a. To what extent does the report contain an assessment of relevant outcomes and impacts of the project and the achievement of the objectives? The ICR assesses the relevant outcomes, effectiveness and achievement of the objectives comprehensively.	HS
b. To what extent the report is internally consistent, the evidence is complete/convincing and the IA ratings have been substantiated? Are there any major evidence gaps? The report is consistent; the evidence is convincing. The ratings have been substantiated, and no evidence gaps are present.	S
c. To what extent does the report properly assess project sustainability and /or a project exit strategy? The ICR includes a good discussion on sustainability.	S
d. To what extent are the lessons learned supported by the evidence presented and are they comprehensive? Lessons are supported by evidences.	S
e. Does the report include the actual project costs (total and per activity) and actual co-financing used? The ICR include the actual project costs (total and per activity), and total actual co-financing.	S
f. Assess the quality of the reports evaluation of project M&E systems? The report describes M&E at design, implementation and utilization.	S

7. SOURCES OF INFORMATION FOR THE PRERATATION OF THE TERMINAL EVALUTION REVIEW REPORT EXCLUDING PIRs, TERMINAL EVALUATIONS, PAD.
NA