

GEF EO Terminal Evaluation Review Form

1. PROJECT DATA				
GEF Project ID: 948		Review date:		
IA/EA Project ID: PO73242	GEF financing:	<u>at endorsement</u> (Million US\$) 6.50	<u>at completion</u> (Million US\$) 2.56	
Project Name: Vilnius Heat Demand Management Project	IA/EA own: 0	0		
Country: Lithuania	Government: 33.60	43.57		
	Other*:			
	Total Cofinancing	33.60	43.57	
Operational Program: OP#5 – Removal of barriers to energy efficiency; Focal Area: Climate Change	Total Project Cost:	40.10	46.13	
IA: World Bank	<u>Dates</u>			
Partners involved: Vilnius District Heating Co., Swedish International Development	Effectiveness/ Prodoc Signature (i.e. date project began)		Dec. 1, 2003	
	Closing Date	Proposed: June 30, 2008	Actual: Dec. 31, 2008	
TER Prepared by: Pallavi Nuka	TER peer reviewed by:	Duration between effectiveness date and original closing (in months): 55	Duration between effectiveness date and actual closing (in months): 61	Difference between original and actual closing (in months): 6
Author of TE: Peter Johansen		TE completion date: 6/29/2009	TE submission date to GEF EO: 12/17/2009	Difference between TE completion and submission date (in months): 6

* 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	MS	MU	MU	MU
2.1b Sustainability of Outcomes	N/A	Moderate	Significant	MU
2.1c Monitoring and evaluation	MS	MS	MS	MU
2.1d Quality of implementation and Execution	MU	MS	MU	MS
2.1e Quality of the evaluation report	-	-	S	S

2.2 Should the terminal evaluation report for this project be considered a good practice? Why?

Yes, the TE report provides a comprehensive and frank assessment of project performance and progress towards achievement of objectives.

2.3 Are there any evaluation findings that require follow-up, such as corruption, reallocation of GEF funds, mismanagement, etc.?

No such findings were noted.

3. PROJECT OBJECTIVES

3.1 Project Objectives

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

The project's GEO, as stated in the Project Document, was to "reduce the emissions of greenhouse gases from the Vilnius District Heating System" by "reducing the barriers to, and implementing, financially sustainable and replicable energy efficiency investments in the residential sector of the Vilnius City."

There were no changes to the GEO during implementation.

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)?)

The objective of the project was to lower barriers to, and implementing, financially sustainable and replicable energy efficiency investments in the residential sector of the Vilnius City. The project's goal was to implement a comprehensive heat demand management program in the City of Vilnius by combining supply side investment with consumption based billing and energy efficient improvements.

The project had 6 components:

1. **Substation modernization**, including the replacement of all block substations with building-level substations in residential buildings.
2. **Apartment-Level Demand-Side Management (ADSM)** to cover 500-600 buildings, demonstrating the benefits of automatic and consumer-controlled use of heat in homes and consumption-based billing at the apartment level
3. **Energy Conservation Program (ECP)** to create and capitalize a revolving fund (run by a firm contracted by the Municipality) finance demand-side energy efficiency investments (primarily building-envelope improvements).
4. **ECP Management Contract** creating an institutional and operational basis for the energy efficiency investment program pursued by the Municipality.
5. **Administration of ECP by the Municipality** to cover some of the incremental operating costs to Vilnius Municipality associated with the management of ECP during the five years of GEF project implementation.
6. **Monitoring & evaluation** of the achievement of the global environmental objective would focus on quantifying the GHG savings associated with energy savings and the performance of ECP.

Components 1 & 2 were to be implemented by Vilnius Energija (VE), a private operator that took over operations of the Vilnius District Heating Company in 2002. Component 1 did not receive GEF funding; it was part of VE's investment program. The Vilnius City Municipality (VCM) was to implement components 3,4,5 and 6.

There were no changes to project objectives during implementation. However, when the VCM proved unable to implement the ECP components, local commercial banks were brought in operate the fund and disburse GEF funding with the condition that they would also put up 50% of all loan amounts. This restructuring was approved at the Country Director level.

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

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
<p>The project outcomes are consistent with the objectives of GEF OP5-Removal of Barriers to Energy Efficiency and Energy Conservation and the Climate Change Focal Area. OP5 includes support for activities that lead to sustainable results that demonstrate local, national, and global benefits through removal of barriers. The project has reduced CO2 emissions and achieved significant improvements in energy efficiency.</p> <p>GHG emission reduction through energy efficiency is a very relevant objective for Lithuania. Most Lithuanian cities, including Vilnius, still have a massive stock of buildings that require renovation of their heating systems and building envelopes. This project has demonstrated the powerful potential of district heating (DH) modernization in reducing GHG emissions, along with improving the country’s energy security by reducing consumption of imported fuel. DH heating systems can achieve high energy and economic efficiency if they are combined with consumption based billing at the household level. Project outcomes support the priorities of the Municipal Government (VCM) of Vilnius, which sought to improve energy efficiency and lower costs using market-based tools. Project outcomes are directly relevant to the City’s Housing Renovation Program (implemented in partnership with VE). The project has demonstrated the technical feasibility and economic benefits of ALDSM and building envelope investments. There is potential for replication of this experience on a broader scale.</p> <p>Outcomes are also relevant to the Bank’s Country Assistance Strategy for Lithuania, which is designed to deepen reforms with a view to EU Accession and building capacity in municipal and local institutions. The project decreased the negative environmental impacts of the district heating. And, it developed capacity at the local level through commercialization of the district heating functions, and creation of public-private partnerships.</p>	
b. Effectiveness	Rating: MU
<p>Overall project effectiveness was mixed. While the project successfully exceeded targeted outcomes in one area, the expected outcomes in other areas have been disappointing, in part for reasons outside the project’s control. The non-GEF funded component focusing on installation of building level substations was effectively implemented and resulted in significantly reduced CO2 emissions at the local level. The GEF funded components aimed at reducing barriers to energy efficient investments were not as successful. These components were, collectively, supposed to address demand-side barriers through “collaborative engagement of public authorities from the Municipality and private participants in the market working together to promote the heat demand management program.” However the ALDSM component was only implemented in 79 buildings and was poorly integrated with the ECP managed by VCM. The ECP Fund had a long start-up phase and became operational only in 2006. By project closure, it had financed energy efficient improvements in 35 buildings. The M&E component was implemented as a separate component, but M&E activities were conducted by VCM and VE.</p> <p>BLS Component Under the project’s design, the modernization of building level substations (BLS) was a pre-requisite for the ALDSM and ECP components. 3152 new BLSs (12% higher than targeted and more than double the baseline scenario of 1,500 new BLSs) were installed in residential buildings replacing the old block level stations by 2007. This investment cut total energy loss in the DH system from 21% (2002) to 13% (2008) and essentially eliminated VE’s commercial losses in the domestic heating network. The TE report notes that the speed of introduction of BLS throughout the city exceeded projections and the new system has improved the quality and reliability of heat supply to homes.</p> <p>ALDSM Component This component was effective in demonstrating the benefits and feasibility of consumer-controlled use of heat and consumption-based billing at the apartment level. Apartment buildings with ALDSM tend to use about 20% less energy and, by all reports, consumer satisfaction with the new system is high. However the ALDSM activities fell rather short of targeted levels and significant barriers to investment in energy efficiency remain. Only 79 buildings were fitted with ALDSM equipment against a targeted number of 550. The TE report notes that “the scale of demonstration was far from sufficient both in terms of the number of buildings and in terms of the marketing and dissemination efforts undertaken.” Many residents still remain unaware of the alternatives to building level heating systems despite this four-year program. Residents also got little information about the benefits of ALDSM from VCM. The challenges involved in obtaining homeowners’ consensus to implement ALDSM within a multi-apartment building were greater than expected and overall demand for the ALDSM equipment was lower than expected despite the below market price available through VE. There is also some indication that the real costs of ALDSM installation made the program too costly for VE to continue in existing buildings. VE preferred to install ALDSM in new buildings, which were not eligible for GEF support as costs were lower and more easily recouped. The project also overlooked opportunities for coordinating the BLS modernization with ALDSM and energy efficiency investments by VCM. The TE report notes</p>	

that “substantial synergies could have been achieved,” if the same buildings that underwent renovation under the ECP also were equipped with ALDSM.

ECP Fund

A financial mechanism involving both commercial and public funds was designed and implemented, after significant delay. It was only in 2006 that the ECP Fund became operational. The fund has financed energy efficient renovations in 35 apartment buildings and has provided a model for replication at the national level. The Fund was quite successful in leveraging co-financing from commercial banks (after the national government partner decided not to participate), as 50% of loan amounts had to be put up the institutions disbursing the loans. However the Fund is operating well below its potential and its sustainability as a revolving fund is questionable given the 10-year maturity period for disbursed loans. Furthermore commercial banks’ continued participation in the ECP is not guaranteed. At least one bank had suspended its operation before project closure due to lack of co-financing from the national and local governments.

The publicity campaign operated by VE was fairly effective in increasing awareness and understanding of energy efficiency issues and efforts to modernize the DH system. The campaign included market surveys, print and television media, and brochures on BLS and ALDSM technologies. Public outreach undertaken by VCM to promote its Housing Renovation Program helped associate the benefits of the GEF-financed ECP with housing renovations and thus helped to engage the building Homeowners Associations (HOA). However, the HOAs were not fully educated about the links between the Housing Renovation Program and ECP and the ALDSM installations managed by VE.

c. Efficiency (cost-effectiveness)

Rating: MU

The TE report notes that an assessment of project efficiency “depends on the strength of the argument that the project should be seen as an integral barrier removal package.” While the project did lower supply side barriers to energy efficient improvements, significant demand-side barriers remain. The actual level of integration between the VE and the VCM components was very limited and coordination between the two executing agencies was poor. The project closed six-months later than expected with only one expected outcome (not funded by GEF) fully achieved. The implementation of the ECP Fund experienced significant delay and the Fund did not become operational until Year 3 of the project.

The pace of disbursement and utilization of GEF funds was very slow. Over a 5-year implementation period, only \$2.56 M (39%) of the \$6.5 M budget was disbursed. For the VE implemented components (BLS substations, ALDSM installations), the grant amount disbursed is US\$721,027.59 (out of \$2.5m allocated, or 28%). For the VCM implemented components (ECP Fund, management, M&E), the final GEF amount disbursed is US\$1,840,869.95 (out of \$4m allocated, or 46%).

Project outcomes have reduced the annual emissions rate from 718 ktCO₂/yr in 2002 to 555 ktCO₂/yr in 2008, a 20% drop. The total amount of CO₂ avoided (in the period 2003-2008) due to project outcomes is 1,729 ktCO₂, 113% of the targeted level of 1526 ktCO₂ avoided. Based on the overall GHG emission reduction of 1,729 ktCO₂ achieved by the project and the actual grant expenditure \$2.56 M, the unit abatement cost can be estimated to be 1.4 US\$/tCO₂ instead of the \$2.3/tCO₂ expected in the project appraisal document. Most of this reduction is attributable to the VE implemented BLS upgrades, which did not utilize the GEF grant. The VCM implemented investments in building envelope improvements (financed via the ECP Fund) had much higher unit abatement cost of \$66.8/tCO₂.

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 outcomes from BLS component are likely to be sustained as these improvements are already paying for themselves through the improved efficiency of the DH systems. Of the apartments equipped with ALDSM, most residents reported satisfaction with the system, and these outcomes are also likely to be sustained.

The ECP Fund faces some risk as the current lending is well below its potential and the 10-yr maturity period for loans is too long to be viable in the long-term. The Fund needs to take in loan repayments at a faster rate that it is making new loans. The TE report notes that the Fund may be transferred to a national facility. National level implementation may improve the chances for the Fund’s viability.

b. Socio political

Rating: ML

Public participation and awareness of the project has been low, with lower than expected demand for ALDSM and very few loans disbursed by the ECP Fund. The outcome from the ALDSM component is likely to be sustained and

awareness of the benefits of demand-side control may spread slowly. A more likely risk is that lack of sufficient awareness about the Fund may decrease its potential for sustainability. The VCM has expressed support for continuing the Housing Renovation Program and the ECP Fund, but future changes in political support or commitment (local elections or changes of office) could change the level of commitment.	
c. Institutional framework and governance	Rating: MU
<p>There is a significant risk that the absence of coordination between VE and VCM will decrease the potential for sustaining or expanding the ALDSM program. There is little incentive for VE to expand the ALDSM on its own. Risks to sustaining the operation of the ECP Commercial Fund are also substantial.</p> <p>While VCM has sufficient organizational capacity to operate the Fund, it has not developed a plan for future operations and at least one commercial lender has dropped out of the program. Without a framework for future governance and management of the Fund, other lenders may also choose to leave. There is a proposal to replicate the project at a national scale, and commercial banks may see greater opportunity in partnering with a national level fund for energy efficient investments.</p>	
d. Environmental	Rating: L
<p>There were no identified environmental risks to sustaining project outcomes. Compliance with existing environmental safeguards was confirmed during implementation in all the buildings affected by the project. The TE report notes that the trend has been towards decreasing CO2 emissions in Vilnius and increasing efficiency of energy use. Newer constructions have ALDSM and consumptions-based billing, and upgrades of existing housing stock are incorporating energy efficient measures due to market premiums for modernized apartments.</p>	

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

<p>a. Co-financing. To what extent was the reported cofinancing (or proposed cofinancing) essential to achievement of GEF objectives? Were components supported by cofinancing 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?</p>	
<p>At project appraisal, the expected amount of co-financing was \$33.60 M, from Municipal and state budgets and VE's Energy Efficiency Fund. Actual co-financing was \$43.57 M, about 130% of the expected amount. The high level of co-financing is attributable to the participation of commercial banks in the ECP Fund. The banks were required to contribute co-financing (generally 50% of the total loan to the homeowner) from their own resources. This change stimulated lending by commercial banks for residential energy efficiency in Vilnius. It also led to a substantial increase in the level of co-financing for the project. The amount of funding mobilized for this component ended up 2.9 times higher than the appraisal estimate (US\$8.7 million instead of US\$3.0m), or approximately \$5 per dollar of GEF grant spent.</p>	
<p>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?</p>	
<p>The VCM managed components experienced significant delays in start-up. There was an initial in procuring an ECP Fund Manager and the first contractor filled the post for two years, during which time there was little loan activity. VCM subsequently requested transferring the fund management role to VST (former DH Company of Vilnius) and starting in mid-2006 the pace of loan disbursement picked up. There was also a high turnover of key staff (due to local elections and changes in political office), both within VCM and VST, which caused delays and some painful disruptions to the project.</p>	
<p>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.</p>	
<p>Local government support for the project was strong at the start, as project was aimed at commercialization of district heating in the City of Vilnius and improving the efficiency of the system to benefit both consumers and suppliers. The Mayor of Vilnius at the time of project endorsement was highly supportive of the project and the GEF funded ECP component was closely tied to the City's Housing Renovation Program (implemented in partnership with VE). The participation of the national government of Lithuania was largely through the support to the Vilnius City Housing Renovation Program. This support proved essential for sustaining the financial scheme created by VCM with GEF participation. However, it also made the scheme vulnerable to disruptions in such support due to political changes at the national level.</p> <p>The high degree of ownership has proved critical for sustainability. The VCM, despite a change of administration, has expressed commitment for continuing the ECP Fund in conjunction with the Housing Renovation Program. The national government has not been involved in implementation, but has shown interest in expanding and replicating elements of the project at the national level using funding available through the Joint European Support for Sustainable Investment in City Areas.</p>	

4.4 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): MS
<p>The original project design included an M&E component to quantify the GHG emission reductions and evaluate the financial performance of ECP Commercial Fund. The ProDoc's M&E included a logical framework matrix, implementation timeline and arrangements for monitoring. There were some inconsistencies in the choices of indicators for evaluating achievement of objectives and impacts. Each of the two main components (VE implemented activities vs. VCM implemented activities) has five main indicators. These indicators were not the same as the indicators in the ProDoc's log-frame (outlined in an annex). The original set of indicators was relevant to project objectives, but some were difficult to measure and several did not meet SMART criteria (i.e. reductions in utility subsidies for low-income households as result of ALDSM investments).</p> <p>Project monitoring was to rely on the standard financial monitoring reports (FMRs), and also include physical output and procurement monitoring. The Bank was to carry out a mid-term review in 2006 to review the economic viability of the project components, based on actual costs and benefits achieved to date, and of the overall institutional and financial viability of the Project.</p>	
b. M&E plan Implementation	Rating (six point scale): MU
<p>The M&E plan was not implemented according to plan. There were two major departures from the plan. Firstly, the list of indicators in the original design was edited to a set of 6 key indicators, that the VE, VCM and Bank team all agreed were most important for measuring progress. One of these six was taken from the ProDoc log-frame, and the others are taken from the 10 indicators in the body of the document. Both VCM and VE used key indicator data to track progress. (All ten of the original intermediate outcome indicators were analyzed in the ICR.) Secondly, the VCM did not have the capacity to procure and manage the consultant required for implementing M&E as a separate component. As VE's own internal monitoring was sufficient for activities under component 1 &2, VCM argued that the performance of the ECP Commercial Fund could be judged on the basis of the financial monitoring reports (FMRs) alone. Thus there was no actual M&E component, though sufficient resources had been provided in the project design.</p> <p>The project's M&E was thus based on the quarterly FMRs and periodic status reports from VE. According to the TE report "monitoring of GHG emission reductions was conducted on an <i>ad hoc</i> basis" and based on the data from VE's own internal monitoring and survey system. The TE report further claims that "the information was useful and provided on a timely basis," but there is little evidence of how or where M&E data was actually fed back into implementation.</p>	

4.6 Assessment of Quality of Implementation and Execution

a. Overall Quality of Implementation and Execution (on a six point scale): MS
b. Overall Quality of Implementation – for IA (on a six point scale): MS
<p><i>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.</i></p> <p>The IA for this project was the World Bank Country Office in Lithuania. Project preparation and appraisal were well managed by the Bank. The project design was unusual in promoting a "public-private" partnership to reduce barriers to energy efficiency. While the choice of executing agency and partners was appropriate, the design phase could have given more consideration to the execution capacity of the VCM and built in ways to enhance that capacity by developing a VCM-VE project management unit for example. More consideration should also have been given to the ALDSM component. A feasibility study or consumer survey during the preparation phase might have been warranted. The TE report notes that "participation of the homeowners in the initial decision to introduce ALDSM as a project component was [not] apparent" and "its assumed acceptance by the majority of the residents was not very well tested." Another issue that should have been investigated in project design was the participation of commercial funds in the ECP Fund.</p> <p>The TE report notes that IA supervision inputs were "sufficient" in terms of budget, staff resources. Project oversight by the IA does seem to have been adequate and the Implementation Status Reports (ISRs) were effective in highlighting areas of concern for implementation and rating progress realistically. However, implementation clearly have benefitted from more guidance in the start-up phase, particularly in regard to procuring an effective ECP Fund manager, pushing forward on loan disbursements, and repairing the slow pace of ALDSM installations. Active encouragement to implement the M&E component might have also been useful in giving the project a more coherent structure and helped to better integrate the VE and VCM executed parts.</p>

The Bank did respond rapidly in agreeing to let commercial banks participate as lenders through the ECP Fund. This was a good adaptive management decision that helped further implementation. The TE report also notes that the Bank “may not have been decisive enough” in responding to the failure to coordinate the VE and VCM components.) and should have sought to suspend and/or restructure the grant.

Financial management and procurement processes were well supervised. The IA provided extensive training to both the VCM and the VE on Bank rules and procedures on procurement of goods and works, selection of consultants, and audit requirements. Mid-term and final evaluations were carried out as planned.

c. Quality of Execution – for Executing Agencies¹ (rating on a 6 point scale) MU

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.

This project was unusual in that it had two executing agencies, the Municipality (VCM) and VE, who signed two independent grant agreements with the WB. The key government counterpart in the project was the Municipal Government (VCM), which was responsible for overall project implementation and coordination.

Unlike many other GEF projects, which have a project management unit, this project was executed directly by the recipients. Administrative capacity in the VCM was low and this negatively affected the quality of execution. There has not been a strong focus on results as evidenced by the delay in initial contracting of an ECP Fund Manager and disbursement of loans. Outreach and publicity activities to raise awareness about the Fund were insufficient. Local elections also led administrative changeovers and the loss of personnel and knowledge slowed the pace of implementation. Following the most recent election VCM ceased coordinating activities with VE. FMRs were submitted regularly and reporting was realistic.

The TE report notes that VE has “cooperated actively” with the IA and has been responsive IA requests. The few solid outcomes from this project are attributable to VE’s efficient deployment of BLSs. Execution of the ALDSM activities was far less efficient. VE could have taken more actions in the start-up phase to confirm the market for ALDSM equipment. Project activities should have been adjusted to account for the obvious low demand for ALDSM installation.

5. PROGRESS TOWARDS IMPACT

a. What is the outlined outcomes-to-impact pathway?

Briefly describe the logical sequence of means-to-end linkages underlying a project (Outcome to impact pathways are the means-ends relationships between project outcomes and the intended impacts – i.e. the logical results chain of activity, output, outcome and impact)

Activities	Outputs	Outcomes	Impacts
Direct investments in DH upgrades	Building level substations installed	A more energy efficient DH system	Decreased energy consumption
Subsidies to consumers for installation of heating controls	Individual apartments/households equipped with heating controls	Consumers self-regulate energy usage	Reduction in CO2 emissions level
Support to establish a financing mechanism (ECP) for energy efficient investments	Consumption based billing implemented	Energy efficient upgrades to building envelopes	Lowered dependence on foreign fuel
Support for informational campaigns	ECP Fund capitalized and operational with loans disbursed	Residents aware of and participating in opportunities/mechanisms for energy efficiency improvements	Realization of economic benefits from energy efficiency at the individual household level
	Public information campaigns launched		

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.

		through print and other media.		
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b. What are the actual (*intended or unintended*) impacts of the project?

Based on the assessment of outcomes [4.1.1] explain to what extent the project contributed to or detracted from the path to project impacts and to *impact drivers* (Impact drivers are the *significant factors* that, if present, are expected to contribute to the ultimate realization of project impacts and that are within the ability of the project to influence

The project has achieved reductions in CO2 emissions rates from 718 ktCO2 in 2002 to 555 ktCO2 in 2008, or by 23%. Actual reductions achieved to date of the TE were about 13% higher than predicted. These GHG emission reductions are largely due to the VE-implemented BLS component. The project has had impacts at the local and national level. It has clearly demonstrated the feasibility of modernizing DH systems and introducing demand side controls. It has also shown that there is consumer demand for energy efficient retrofits if credit is accessible. Residents who participated in the ALDSM program report modest savings on heating costs and overall satisfaction. Those buildings which undertook energy efficient improvements through the ECP Fund have seen apartment prices increase. Based on the achievements of the project in Vilnius, there are plans to expand and replicate the project at the national level.

Impact drivers: This project had a complex implementation arrangement and several factors affecting impacts in different ways. (i) Limited capacity of the municipal government (executing agency capacity) was an important factor that led to delays and lags in implementation. (ii) Changes in VCM administration following elections meant that political support was inconsistent and integration with the VE activities was poor. (iii) The lack of demand for ALDSM installations, and little awareness of the program was an unexpected factor that limited realization of benefits from coordinating BLS upgrades with installation of demand side controls. (iv) It was expected that building Homeowners Associations (HOA) would proliferate, generating demand for ALDSM. However this did not happen, and even in buildings with HOAs, obtaining consensus among all the owners for energy efficiency improvements proved more challenging than anticipated.

c. Drawing on the assessment of the likelihood of outcome sustainability [4.2], what are the apparent risks to achieved impacts being sustained and likely impacts being achieved?

The project has reduced annual emissions by more than 20% from 2002 levels and it is likely this impact will be sustained. With the continuation of the City's Housing Renovation Program and scaling up of project outcomes to the national level, it is likely that even more old buildings will be converted to meet modern energy efficiency standards. Thus the flow of environmental benefits is likely to be sustained.

d. Evidence of Impact

Question	Yes	No	UA
i. Did the evaluation report on <i>stress reduction</i> ² at the <u>local level</u> (i.e. at the demonstration-pilot level, etc)?	X		
ii. If yes, describe the evidence that was provided whenever possible quoting quantitative evidence. Also discuss the scope ³ of such reductions given the range of concerns targeted by the project. Annual CO2 emissions were reduced by 20% from 2002 levels.			
iii. Did the evaluation report stress reduction at the broader <u>systemic</u> level?		X	
iv. If yes, describe the evidence that was provided whenever possible quoting quantitative evidence. Also discuss the scope of such reductions given the range of concerns targeted by the project.			
v. Did the evaluation report change in the <i>environmental status</i> at the local level (i.e. at the demonstration - pilot level, etc)		X	
vi. If yes, describe the evidence that was provided whenever possible quoting quantitative evidence. Also discuss the scope of change given the range of concerns targeted by the project.			
vii. Did the evaluation report change in the environmental status at the broader systemic level?		X	
viii. If yes, describe the evidence that was provided whenever possible quoting quantitative evidence. Also discuss the scope of such change given the range of concerns targeted by the project.			
ix. Did the evaluation report change in the socioeconomic status at the local level?		X	

² Stress = Pressure on the environment caused by human activities; Reduction=decrease of this pressure

³ Scope refers to the broadness of results against original objectives,

x. If yes, describe the evidence that was provided whenever possible quoting quantitative evidence. Also discuss the scope of change given the range of concerns targeted by the project.			
xi. Did the evaluation report change in the socio-economic status at the systemic level?		X	
xii. If yes, describe the evidence that was provided whenever possible quoting quantitative evidence. Also discuss the scope of change given the range of concerns targeted by the project.			
xiii. Did the evaluation provide evidence of any negative impacts (on drivers toward the projects intended impact, environmental status, socioeconomic status)? Describe the impacts that were documented and how severe were these impacts?			
There were no identified negative impacts.			
e. Monitoring of impacts			
i. Are arrangements/institutions in place to monitor stress reduction/improvement in the environment and/or socio-economic conditions at the local level after project completion?	X		
ii. Are arrangements/institutions in place to monitor stress reduction/improvement in the environment and/or socio-economic conditions at the systemic level after project completion?	X		

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

Lesson 1. Energy efficiency improvements in multi-apartment buildings of the Soviet era are a challenging undertaking that requires collective decision making by homeowners. It takes a concerted effort and a long-term partnership between the government and the private sector to successfully promote energy efficiency in these buildings. Key ingredients will be: information campaigns, support to HOA creation and access to preferential, long-term loans and/or subsidies.

Lesson 2. The combined energy savings from improving the heating systems and the building envelope can be about 40 or even 50%, with GHG emission reductions of a similar order. A few buildings under this project achieved such combined benefits. A program aiming at such combined energy savings could be very attractive for Lithuania at the national level (subject to finding capital cost reduction opportunities for the building envelope component as stated below under Lesson 4).

Lesson 3. The ALDSM equipment alone can save about 20% of heat energy to a residential apartment. This is the result of economic incentives to save energy created by AL DSM in combination with consumption-based billing. ALDSM implemented on a stand-alone basis (without the building envelope improvements) has a considerable cost advantage over the more comprehensive option under Lesson 2. Furthermore, the project has shown that homeowners living in apartments with consumption-based billing tend to invest more of their own resources in energy saving measures such as window replacement and insulation. The apartment-level improvements, however, can only be successful if a streamlined mechanism for obtaining homeowners' consensus is in place and the municipal authorities actively participate in "selling" the idea to the public.

Lesson 4. Under the VCM implemented components, the project has demonstrated a model of a municipal-level facility capable of operating in a commercially oriented fashion to finance residential energy efficiency. Creating the incentives for commercial banks to enter the scheme is the key to scaling up a program using such a facility (please see Annex 8 for suggestions on how incentives can be created for banks). However, the project also demonstrated that building envelope investments remain costly, and energy savings alone may not be sufficient to generate a reasonable economic payback on them. For a national-level housing renovation program to be successful, it would be necessary to find ways to reduce the capital costs of building renovations – e.g., by applying more cost-effective procurement methods.

b. Briefly describe the recommendations given in the terminal evaluation

No recommendations were given in the terminal evaluation.

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.

The World Bank's IEG report largely concurs with the TE (ICR) assessment of project performance. The only point of difference is that the IEG judges risks to development outcome as 'significant' while the TE rates risks as only 'moderate'.

Provide a number rating 1-6 to each criteria 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
<p>a. To what extent does the report contain an assessment of relevant outcomes and impacts of the project and the achievement of the objectives?</p> <p>The report presents a comprehensive and honest assessment of outcomes and impacts as well as progress towards objectives.</p>	S
<p>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?</p> <p>No evidence gaps or inconsistencies were notes. The evidence presented supports the ratings.</p>	S
<p>c. To what extent does the report properly assess project sustainability and /or a project exit strategy?</p> <p>The assessment of sustainability is brief; the report does discuss the next phase of operations after project closure.</p>	MS
<p>d. To what extent are the lessons learned supported by the evidence presented and are they comprehensive?</p> <p>The lessons learned are well supported by the evidence presented on project design and implementation.</p>	S
<p>e. Does the report include the actual project costs (total and per activity) and actual co-financing used?</p> <p>Actual projects are presented (total and per activity). Actual co-financing amounts are presented. However there is no breakdown of co-financing according to the source (govt, banks, or homeowners).</p>	S
<p>f. Assess the quality of the reports evaluation of project M&E systems?</p> <p>Evaluation of the M&E system cover design, implementation, and utilization.</p>	S

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

World Bank IEG Review of ICR