

**Alliance to Save Energy
MUNEE Monthly Report
January 1 – February 7, 2006**

HIGHLIGHTS

REVOLVING FUND IN ARMENIAN CONDOMINIUMS LEADS TO INVESTMENTS AND RESULTS

- The Gumri Revolving Fund provided US\$500 loans to two condominiums for small-scale end-use energy-efficiency renovation projects, one of which has been completed and is already helping recover the investment.

TURNOUT FOR RESIDENTIAL WORKSHOP IN YEREVAN SHOWS BROAD INTEREST IN HEAT PROJECTS AND RELATED ASSISTANCE

- The Alliance and National Association of Condominium Owners (NACO), in cooperation with UNDP/GEF held a workshop in late January titled “Residential Heat Supply Rehabilitation in Armenia and the Role of Building Management Bodies.” The presence and enthusiasm of 80 attendees – many of whom are managers of multi-apartment buildings – demonstrated the demand for and interest in the heat consultancy services being offered to multi-apartment building managers and residents by the Alliance and its partners.

RESIDENTIAL ENERGY EFFICIENCY WORKSHOP IN KYIV ATTRACTS A MULTINATIONAL CROWD AND MASS MEDIA

- A two-day workshop titled “Removing Barriers to Residential Energy Efficiency in Central and Eastern Europe” successfully attracted 108 participants from more than 10 countries in the region. The 18 presenters shared their experiences with residential end-use energy efficiency with active participation from the audience of policymakers, residential managers, energy efficiency product and service providers, donors and implementing partners. Multiple barriers to energy efficiency were discussed along with ways to address those barriers.

** Please note: abbreviation EE stands for energy efficiency, and is used throughout the report.*

Update from Country Offices of the Alliance to Save Energy



Armenia

Revolving Fund Assistance Program for the City of Gumri: In January, the Third Nature NGO reported to the Alliance that condominiums Bardzraberd and Ghandilyan were each given a \$500 loan under the revolving fund assistance program in the city of Gumri. The two condominiums implemented small-scale projects that included the installation of front entrance and basement doors, installation of gutters, and glazing of windows in the entrances and basement areas.

Because the Bardzraberd condominium installed an entrance door and basement windows before the start of the winter, the first results are already visible – the air temperature inside the staircase is approximately 5-10°C higher than previously. The condominium has already started to repay its loan. The Ghandilyan condominium received the loan a bit later, and the construction is awaiting warmer weather in the spring.

Energy Audit Provisions in the Framework of Secondary Legislation for the Law on Energy Saving and Renewable Energy: In January, the Alliance met with the Ministry of Energy to further discuss provisions for the state energy audits within the framework of secondary legislation for the Law on Energy Saving and Renewable Energy (ES&RE). The terms of reference (available upon request) list the general procedures for developing legislative acts for carrying out state energy audits. The Alliance will continue providing technical assistance to the Ministry of Energy in the development of these acts.

The Alliance Works to Develop Energy Efficiency Standards in Armenia: In its work thus far to provide the Armenian Energy Efficiency Council with a clear list of adequate and appropriate energy efficiency standards, the Alliance has prepared a document that lists the European (specifically, the Austrian) energy-related standards that are relevant for Armenia. The Alliance has also obtained the list of Armenian energy standards that were developed by the Energy Research Institute (ERI) in 2005. On the basis of this list and the new energy standards that will be developed by ERI in 2006, the Alliance will define the government requirements for energy standards development for 2007-2010. The Alliance expects that some of the energy efficiency standards will be enforced by 2007.

Considering the growing need for harmonizing the Armenian standards with those of the European Union, the Alliance is preparing a comprehensive guide for the Ministry of Energy and the Armenian Energy Efficiency Council on the European institutions for development of standards. Thus far, the Alliance has prepared introductory materials for the Armenian government officials to broaden their understanding of European standards legislation, standardization and labeling, and institutional infrastructure.

Workshop on Residential Heat Supply Rehabilitation Programs in Armenia: In January, the Alliance and National Association for Condominium Owners (NACO) helped the Heating Advisory Services of the United Nations Development Programme (UNDP) to organize a workshop titled “Residential Heat Supply Rehabilitation Programs in Armenia and the Role of Building Management Bodies” under the framework of a UNDP/GEF project titled “Armenia-Improving the Energy

Efficiency of Municipal Heating and Hot Water Supply.” The 80 attendees consisted of energy program experts, managers of multi-apartment building management bodies, municipal and communal services officials, as well as media representatives.

The goal of the workshop was to introduce the multi-apartment building management bodies to the UNDP/GEF project’s objectives, other UNDP/GEF energy related program activities, and the previously implemented heating projects that are being operated by the multi-apartment building management bodies and/or energy service companies. The Alliance made a presentation on energy efficiency issues in residential heating and on the Building Energy Efficiency Project (BEEP) software.

Progress on MUNEE Regional Studies: In January, the Alliance continued to work on the first draft of the affordability study. The draft now includes reviews of the housing sector in Armenia, descriptions of relevant national policies, energy efficiency opportunities and barriers in the residential sector, and a review of a case study on installation of metering equipment in a residential heating project.

Continued Progress on the USAID Residential Heating Project: As part of the Residential Heat Project (RHP) consortium, the Alliance is providing technical assistance to residential communities that are interested in improving their heating services. Specific, potential heat projects are identified by the Project team and the Alliance works with the likely beneficiaries of such projects to determine project feasibility, identify barriers, and raise awareness about options for managing heat supply and maintenance to multi-apartment buildings. In January, the Alliance accomplished the following:

- Drafted an analysis of the lessons-learned from four selected residential heating pilot projects
- Reported on a field trip to the city of Vanadzor
- Drafted the framework for residential community meetings that will improve public participation in heat projects and facilitate better awareness of all major issues and strengthen communication among the various stakeholders
- Developed a list of potential topics for residential community meetings
- Participated in a few site visits along with engineers of the RHP
- Visited the city of Nor Hachn, touring an existing boiler house designed for 7 buildings, 3 of which do not receive heat from the boiler house; spoke with the residents of those buildings
- Held regular meetings with the RHP team leaders
- Prepared and finalized a training needs assessment for residential communities, including condominiums and condominium managers



Moldova

Progress on MUNEE Regional Studies:

The Heat Study: In January, research on the Moldovan heat sector generated several conclusions for the study. It is evident that the new Ministry of Industry and Infrastructure Development, which now oversees the energy sector, is gradually becoming interested in pursuing activities related to heat

sector legislation. The government had recently approved a heat sector decentralization program that includes heating plans for 40 Moldovan cities, offering catered solutions on how to decentralize the heating system in cases where district heat is no longer viable. Though this program is not obligatory for the local governments, its purpose is to serve as guidance for heat sector development in each city.

The retrofits within the heat sector are being carried out solely in the public buildings, while the residential and commercial units are left to fend for themselves. The Ungheni municipality is the only exception, since its local government is implementing district heating decentralization for all consumers, and connecting all of the end-users to the newly constructed heat only boilers (HOBs). This is discouraging for increasing energy efficiency, as the residential sector constitutes the largest consumption of heat in Moldova. For example, the residential sector consumes approximately 70 percent of the heat in the cities of Balti and Chisinau respectively. Also, district heating companies experience tremendous heat losses throughout the infrastructure systems.

The Affordability Study: In January, the Alliance has identified three projects that can be used for case studies because they simultaneously show that as a result of energy efficiency retrofits the comfort levels are increased while savings are visible in regard to the utility bills. However, even though the potential for energy savings from energy efficiency projects in the apartments could be as much as 60 percent, the number of residential energy-efficiency projects implemented is limited due to the following:

- **Low awareness by the consumers** - According to a survey of residential consumers conducted by the Alliance, 70 percent of respondents were not familiar with the term “energy efficiency.” It is evident that the mass media does not convey clear and adequate information about energy efficiency.
- **Lack of financial means** - According to the World Bank, Moldova is the poorest country in Europe, with a GDP per capita of US\$720. A minimum monthly salary is approximately 540 Moldovan Lei (US\$45), while the average monthly communal services bill for a 2-room apartment usually adds up to US\$40.
- **No financing options available on the market** - Although some funding is available, it is usually spent on maintenance repairs. The banks are not ready to finance residential borrowers such as home owner associations (HOAs), because these types of clients are associated with high risks. No revolving funds are available to support the housing sector.
- **Ownership of common areas** – Such ownership is not clearly defined and understood, and therefore often left without maintenance. Although 95 percent of the housing stock is privatized (19.2 percent of the privatized housing stock is in the Chisinau municipality), the residents are not fully aware of their rights and responsibilities regarding the public spaces such as roofs, basements, stairs, the adjacent land plots. Thus, these residents expect the government to handle all maintenance of the common spaces – as was the case in Soviet times.
- **Inadequate management and information for HOAs** - The housing sector lacks professional management. The Municipal Enterprises (formerly ZHEKs) charged with housing maintenance lack the funding, interest and professional expertise necessary to service over 7,000 buildings. The 675 housing associations that include privatized apartments and 43 condominium associations are managed by volunteers who have little, if any, access to information about energy efficiency and other cost-saving measures, and no expertise on managing the wide range of communal problems.
- **An outdated subsidy system** - According to the IMF Strategy for Economic Growth and Poverty Reduction report, 75 percent of Moldovan households that are classified as poor

should not be considered so if the poverty designation is based upon the consumption levels of the households. 13 percent of households, which are not classified as poor, are extremely poor in reality. Therefore, there is an immediate need to revise the Law on Subsidies, which presently entitles 9 different categories of population to allowances¹.

- **Tariffs** – The residential building maintenance service tariffs are set below cost-recovery levels.
- **Perpetual restructuring of the ministries** – The continuous reshuffling of the ministries results in understaffing and an under-qualified workforce that subsequently leads to poor quality information, and more generally, haphazard mechanisms of public policy.
- **Other barriers** consist of conflicting and contradictory regulations, outdated construction standards, absence of legal incentives for energy efficiency measures in the residential sector.

Article on Challenges and Opportunities Related to Heat Rehabilitation Published in Stroy Business Magazine: In January, the Alliance contributed and edited an article by Valentina Piontkovskaya titled *Will We Find Funds for Heat Rehabilitation*, published in the January-February issue of *Stroy Business Magazine*. The article raises questions regarding the ability to obtain accessible funding for heating sector rehabilitation projects within Moldova. In describing possible funding mechanisms for heating projects, the article discusses the costs and benefits of the new ordinance issued by the Agency for Regional Development that requires blueprints for new buildings and the refurbishment of existing ones to include energy efficiency aspects. The article points out that this legal framework would not necessarily work unless standards or benchmarks are introduced to demonstrate the appropriate energy consumption level per square meter for each type of construction (concrete, panel, brick, etc.). The article points to the fact that energy passports were developed a few years ago in Moldova, but were not implemented.

• ¹ The maximum allowance is US\$11 (140 MDL).

Update from Consultants on Heat and Affordability Studies



Albania

Partner: Albania-EU Energy Efficiency Center (EEC)

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NOTE: the following information refers to work that the EEC is doing in conjunction with a regional South East Europe project funded by USAID through a contract with IRG. The Alliance is not directly involved with the Albanian component of this work (which involves developing some pilot projects); however, since it is related to the regional studies managed by the Alliance, it is included in this report.

Research and Market Survey to Evaluate the Demand for Thermal Insulation in Existing

Buildings: During January, the staff of the Albania-EU Energy Efficiency Center (EEC) staff has continued its collaboration with the officials of the municipality of Elbasan. The EEC staff inspected 60 buildings where an average of 30-40 percent of the apartment units had upgraded old wooden frame windows to those with an aluminum frame. In addition, the EEC staff collaborated with the municipality of Tirana, inspecting 90 buildings where, interestingly enough, also an average of 30-40 percent of the apartment units did the same window upgrades as in Elbasan.

The next steps taken in January were to identify specific buildings in each city where the benefits of thermal insulation could be demonstrated in potential pilot projects. In Elbasan, the EEC staff selected building No. 105 located on Cerciz Topulli Street in the Hekurudha District. The building has 15 apartments, with more than 40 percent of low-income inhabitants. Out of the 13 families that reside in the building, 6 receive social assistance or are retired. In Tirana, the EEC staff selected building No. 84 on Cekreze Street in the 1st Kamza District. The EEC staff collected basic data from these buildings such as names of residents, household electricity and gas consumption levels and costs, and the physical parameters for both of the buildings. The next step is to conduct energy audits in both of the buildings.



Bulgaria

Partner: EnEffect

Research on Heat and Affordability Studies: In January, EnEffect, the implementing partner of the Alliance in Bulgaria, worked on including analytical details into the discussion papers for both the heat and the affordability studies. One of the problems, which EnEffect encountered while collecting data, results from different tariff systems across countries – specifically among Bulgaria, Macedonia and Croatia that are the countries included in EnEffect’s current research, which complicate comparison between the prices of fuels and energy for the purposes of a regional analysis.

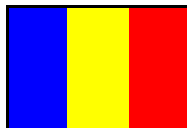


Poland

Partner: Dr. Witold Cherubin, Senior Advisor to the Polish Energy Regulatory Authority and Independent Consultant

Research on Heat Study: In January, Dr. Witold Cherubin, one of the Alliance’s expert advisors for the studies, began to recommend case studies for the affordability study. For starters, the following possible case studies were recommended for documentation:

- Thermo-modernization of a building where the majority of inhabitants subsist on social assistance in the town of Jaworzno. The building receives heat from local oil & gas heat only boiler (HOB).
- Thermo-modernization of a residential building in the city of Warsaw. The building is equipped with individual hot water gas heaters and central heating.



Romania

Partner: Honoriu Pitaru, Senior Consultant at MITHOS Energy Consultants

Research on the Heat Study: In January, Honoriu Pitaru who is the local partner for this project in Romania, proposed several case studies that could be applicable to the heat study. One of the case studies is the PHARE-financed project under which thermostatic valves and heat allocators were

installed in approximately 12,000 apartments between 2003-2005 in the municipalities of Bucharest, Fagaras, Oltenita, Pascani and Ploiesti. The project amounted to € million, and was implemented by Elsaco, a local metering company. Although the metering results do not fully satisfy all of the criteria indicated by the Alliance's case study template, a case study might be possible based on the available information. However, the quality and consistency of monitoring results from these projects needs to be analyzed before determining whether adequate data are available.

Assistance offered to new Romanian NGO: Mr. Pitaru assisted in the initiative to establish the Association for Community Rights and Partnerships, which is legally registered as an NGO. The goal of the Association is to provide the residential sector with information on the legal, financial, tariff related aspects of energy efficiency. Another goal of the Association is to gather data for an extended database on energy consumption. The Association was registered with the local governing bodies, and a website was launched, directed at all residents of multifamily buildings in Romania (<http://blocb7.idilis.ro>).



Ukraine

Partner: ARENA-ECO

Research of Case Studies for the Heat and Affordability Studies: In January, ARENA-ECO, one of the Alliance's expert advisors for the urban heat and residential affordability studies, started to compile recommendations for seven case studies based on the Ukrainian experience with energy efficiency in these two focus areas. A table listing the type of project, the implementation period, the implementer, the location, donor/investor, and the main results and information source was submitted to the Alliance. The Alliance provided comments on the recommendations on the list, and the case studies that will be used for the residential EE/affordability study include:

- Kharkiv Heat Supply Improvement & Institutional Restructuring Study
- Energy Efficiency in Residential Buildings in Ukraine
- "Ridniy Dim" - Financing mechanism for energy conservation measures in the residential sector.

Update on Regional Initiatives and Research



Alliance Holds Workshop on "Removing Barriers to Residential Energy Efficiency in Central and Eastern Europe": The two-day workshop titled "Removing Barriers to Residential Energy Efficiency" took place on February 6 & 7, 2006 at the Hotel Rus in Kiev, Ukraine. Organized by the

Alliance to Save Energy, funded primarily by the Renewable Energy and Energy Efficiency Partnership (with co-funding support for related research by USAID), and sponsored in part by Siemens, the workshop gathered 108 participants from the Central and Eastern European region. The workshop participants represented Ukrainian environmental NGOs, Ukrainian housing maintenance companies, private companies marketing energy-saving technologies and services, mayors from several Ukrainian cities, representatives from district and city councils, representatives of the Ukrainian mass media (see Annex I for full list of media presence), representatives from the Ministry of Building, Architecture and Housing and Communal Services of Ukraine, international NGOs, IFIs, among others.

Both days were abundant with presentations of energy efficiency experience and/or barriers in the residential sector, which pointed out the usefulness of energy efficiency projects, and discussions regarding the current issues of project implementation throughout the region. Taking into consideration the discussion topics raised by the audience, and the information from the presented case studies, the workshop moderators pinpointed numerous barriers and came to many conclusions spanning legislative, technical, institutional, financial, and informational aspects of energy efficiency. Some of the identified barriers included the lack of information about the benefits of energy efficiency, as well as ways to obtain these benefits; lack of financing mechanisms; tariffs that are below cost-recovery levels; ambiguous property rights and sense of ownership.

Some of the recommendations included the need to strengthen capacity of the housing sector to manage and operate self-sufficiently and to demand necessary rights and benefits from local government bodies; the need to utilize the power of partnerships; the need to establish utility tariffs to reflect costs incurred in service provision while simultaneously accounting for the needs of the low-income consumers and aiming to increase payment discipline; creating policies that would establish and/or improve energy efficiency through building codes, appliance standards, energy auditing procedures. A complete report on the workshop is being prepared and will be available in March.



Progress with the MUNEE Website: The month of January ended with record statistics for the www.munee.org, demonstrating its usefulness for the audience. Daily visits exceeded 200 for the first time to a total of 204. Monthly visits are up from December by 21 percent to a record high of 6,345. Statistics on country breakdown show that the country of Armenia serves as the source for most of the January visits, followed by Russia, Bulgaria and Bosnia & Herzegovina.

In a report that covers the period from April 2002 to December 2005, prepared by the DEPART, the website host, it is apparent that the website is used most often by the audience from Eastern Europe, with most active visitors in January coming from the Russian Federation, Hungary, Romania and the former Yugoslav Republics. The reliability of the website server is 99.99 percent, with only 0.01 failed hits which resulted from failures on the user end. The top four websites which refer the user to munee.org most often are Google, the Alliance website www.ase.org, the Alliance Serbia website, and the DOE's EERE website. The statistics also show that 45 percent of all visits last longer than 19 minutes. This leads to conclude that the information that is available on the website, and the way in

which it is presented, as well as the dynamic nature of Alliance's goals regarding energy efficiency keeps generating an increasing interest from the Central and Eastern European audience.

Annex I

Mass Media Presence at the Workshop on Removing Barriers to Residential Energy Efficiency in Central and Eastern Europe Kiev, February 6-7, 2006

- News agency INTERFAX
- TV Channel UT-1 (First National)
- TV Channel INTER
- TV Channel 5
- TV Channel K-1
- TV-Radio ERA
- Radio KYIV
- Newspaper URYADOVYI KURIER (published by the Cabinet of Ministers of Ukraine)
- Newspaper HOLOS UKRAINY (published by the parliament of Ukraine)
- Newspaper DEN
- Newspaper DELO
- Newspaper COMMENTS
- Newspaper PROPERTY TIMES
- Magazine RYNOK INSTALYATSIYNYI