

MUNEE NEWSLETTER # 9

The Newsletter of the Municipal Network for Energy Efficiency
(MUNEE)

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TABLE OF CONTENTS

- The "Better" Investment for CO₂ Reductions: Supply- or Demand-Side Management?
- News from the MUNEE Program
- Headlines from the Region
- Events in the Region
- Spotlight on Metering and Subsidies in Ukraine
- The Alliance Office Moves to a New Location

THE "BETTER" INVESTMENT FOR CO₂ REDUCTIONS?

In the MUNEE region, the heating season has begun and everybody is looking for ways to keep warm. When budgets are already tight, cities must make investment choices carefully. In addition to budget considerations and in light of new opportunities in carbon-trading, municipalities are seriously considering investments in terms of their capacity to reduce carbon emissions. While conventional wisdom holds that supply-side investments in the heating sector - particularly fuel switching - are the most cost-effective per ton of CO₂, a new report prepared by Pacific Northwest National Laboratories and the Alliance to Save Energy may indicate that end-use investments can have an equal or even better rate of GHG reduction per dollar invested.

This conclusion is based on an examination of three dozen already-implemented projects in the region that cover generation, transmission/distribution and end-use. While the end-use projects in schools and hospitals were smaller, they also reduced more CO₂ per dollar than other projects. The possible reason for why end-use investments sometimes appear more "carbon cost-effective" is that supply

investments may be made with the goal of serving a larger load and/or increasing service (i.e. heat delivery) to customers, rather than only for energy efficiency or carbon-reduction purposes. This is an important conclusion for potential buyers of emissions reductions - particularly since the market is so new and many buyers are experimenting with these trading mechanisms, therefore seeking smaller projects in the short-term.

More study is definitely needed, but this conclusion and others concerning development of municipal energy efficiency projects are explored in greater depth in the report, "Energy Sector Investment Strategy for Eastern Europe and the Former Soviet Union," which is currently available on <http://www.munee.org/> . And for more information, contact Seth Baruch at sbaruch@ase.org .

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NEWS FROM THE MUNEE PROGRAM
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MUNEE Website: Have you been looking at the MUNEE website lately - <http://www.munee.org/> ? There have been many additions lately, ranging from more case studies to a low-cost weatherization manual that illustrates specific techniques of window repair and installation of radiator reflectors. Also, for a comprehensive overview of energy issues in Serbia, please visit <http://www.ase.org.yu/>.

Regional: District Heating Seminar: The Alliance to Save Energy, supported by USAID and Danfoss, held its fourth regional exchange on November 4 in Prague. The subject was restructuring and attracting private investment for district heating companies in the Eastern Europe/NIS region. The conference brought together municipal heating companies, district heating associations, banks, regulators and private investors to discuss what has and what has not worked with regards to private sector participation in the heating sector. Various case studies of private companies leasing, operating and managing heating systems -- from Krakow to Kazakhstan -- will soon be added to the MUNEE website. In addition, the Alliance will develop a guide for what cities (and countries) need to do to attract the investment needed to upgrade heating infrastructure across the region.

Because the resources of donors and international financing institutions are limited, private investment is needed and can, if utilized intelligently, improve heating service. However, cities need to learn from the experiences of their counterparts -- particularly in Poland, Lithuania and the Czech Republic -- in how to attract investment, negotiate with the private sector, and mitigate the sometimes negative

consequences of heat sector restructuring.

The participants at the conference agreed that a stable, predictable national policy is the vital first step in encouraging rational heat sector reform. There was also a general consensus that the way things are run now is simply not sustainable. A "killer" policy is "cost-plus tariffs" where heat prices are reduced if operating expenses are reduced. This removes any incentive to eliminate wasteful expenses and improve efficiency. Other tariff policies, particularly two-tier tariffs or capacity charges, also make good sense.

As national policies are changed, cities should start with the simpler things before trying to attract millions of dollars -- improving management, accounting, billing, and contracting procedures with suppliers and with clients. Heating companies should not be afraid to decentralize where heating densities are low and where the localized or autonomous boilers make sense. After the basics are in place, the heating companies, if they can be freed from political influence, will have a stronger hand in negotiating with investors and getting a better deal for both parties. For more information, please contact Dan Przeworski at dprzeworski@ase.org

Bulgaria: New Municipal Bond Issued for Energy Efficiency Project: The City of Varna just issued a municipal bond to finance \$3 million worth of streetlighting upgrades. The bonds, with a yield of 9%, were bought up in a matter of days. MUNEE partner EnEffect assisted in the development of the project. Although Varna's position as a revenue-earning port city make it unique, this project is still extremely important, because it is one of the first municipal bonds issued for an energy efficiency project in the region (if not the first). Also important is that the cost to the city is less than commercial bank loans (see new item below) with no collateral requirements. For more information on this project, please contact Pavel Machev at pmachev@eneffect.bg .

Bulgaria: MUNEE Project Gets Financed: One of the projects developed by EnEffect under the MUNEE program in Bulgaria was in the City of Stambolinski. After EnEffect's initial work, the city pursued this co-generation project with vigor, going to bank after bank, until First Bulgarian bank agreed last month to finance the work. The project will provide better quality heat to nearby residential and municipal buildings (fueled by natural gas), and the surplus electricity will be sold to the national grid. Another important development is the terms. Banks often charge interest rates of 18 percent or higher with a collateral requirement of two times the value of the project. With this project, the bank will charge 12 percent with only a 100% collateral requirement, demonstrating the terms for financing municipal projects are gradually easing in Bulgaria. For more information, please contact

Pavel Machev at pmanchev@eneffect.bg .

Bosnia: Cities Getting on Board: Twenty-three cities joined a new working group that will be similar to the Municipal Energy Efficiency Committee developed in Serbia. The first session took place in October, with another scheduled for November, and the Alliance will disseminate all of the tools it uses for cities across the region to improve energy management.

In another Bosnian development, the Alliance provided training for 35 municipalities on leak detection for Bosnian municipal water systems (as well as four cities from Montenegro). Several Bosnian cities received advanced leak detection equipment in recent years from other donors but received insufficient training to use it. The Alliance is providing that training and following up to evaluate the results. In addition, the Alliance is helping to arrange for cities to share the equipment with other water companies, expanding its use. Leak detection is one of the most cost-effective ways to reduce water (and therefore electricity) losses, if the water utilities follow up on repairing the larger leaks. The City of Darovar, Croatia, where an Ecolinks project was implemented, reduced leakage in its system from 50% to 25%. The project cost \$49,000 but is saving about 350,000 cubic meters of water per year and \$62,000 in reduced water and electricity costs. Leak detection pays for itself particularly quickly in countries where labor (to fix leaks) is cheap and where the leaks are concentrated around places in the system that are more accessible (valves, joints, near pumping stations, etc.). For more information, please contact Seth Baruch at sbaruch@ase.org .

Latvia: Loans for Energy Efficiency: The City of Valmiera, as a first step in a "Demand-Side Action Program," recently approved loans for energy efficiency improvements in three residential buildings, a result of MUNEE's work with the city and housing associations - providing a replicable example of how to implement projects in the residential sector. The commercial bank loans will be made to the city-run housing maintenance companies and will be repaid through the fees residents pay to the maintenance organizations. The MUNEE partner for Latvia, Ekodoma, analyzed heat consumption in 136 buildings and selected apartment blocs with the highest levels of energy intensity (more than 230 kWh/m²). The loans will enable repairs to roofs, basements and apartments and other areas where energy waste is highest. The goal for MUNEE will be to expand this work to other energy-intensive buildings. For more information, please contact Angela Morin at amorin@ase.org.

Russia: Third MUNEE Policy Work Group Meeting: On October 23, the MUNEE team -- including partner organizations and Alliance staff

-- met in Moscow to review accomplishments and challenges to date and to strategize for the future. The meeting was hosted by MUNEE Partner CENEf, who emphasized that the experience from other Eastern European countries has been hugely valuable for Russia. Participants presented the results of major MUNEE initiatives, including a study of private sector participation in district heat reforms in Poland, and discussed the proposed shift to focus more on protection of low-income energy consumers.

The group agreed that MUNEE needs to make sure that cities utilize the information -- the software and planning tools MUNEE designed, the city innovations analyzed, the model policies adopted and the financing approaches developed. Much of this information is included in the Energy Sector Investment Strategy discussed above. For more information, contact Seth Baruch at sbaruch@ase.org .

Russia: Leasing as a Financing Option: Regular readers of MUNEE News know that the Alliance is always looking for new ways to finance municipal energy efficiency work. The Alliance recently held a seminar in St. Petersburg with more than 50 participants from municipalities, energy efficiency businesses and leasing companies. With the passage of the law on leasing in 1998, Russian municipalities are increasingly entering such agreements as they pursue energy efficiency initiatives. The agenda covered the leasing issue from the unique perspective of each party in a leasing agreement. Russian municipal representatives shared their experiences in leasing boilers, heat exchangers, meters, and other equipment. Leasing companies shared their good and bad experiences working with municipalities, and energy efficiency vendors described the potential of their technologies. Also participating were insurance companies that have insured leasing deals in the past. The goal of the seminar was to develop formal relationships between energy efficiency and leasing companies -- as well as explore and develop strategies to overcome the barriers facing leasing companies in the municipal sector. Materials from this seminar will soon be available on www.munee.org.

Serbia: Alliance Staff Moving Up in the World: The Alliance's Dr. Slobodan (Sloba) Ruzic was appointed the new Deputy Minister of Energy in September, and he will serve as the number two official in the Ministry of Energy. During his eighteen months with the Alliance, Dr Ruzic advised two Ministers of energy, the Minister of Finance, the Prime Minister, and dozens of municipal officials both about the energy system in Serbia and about the block tariff structure. Dr. Ruzic has also worked very closely with EPS, his former employer and the national utility, to implement a new tariff and advised them on their winter electricity needs both for 2001/2002 and 2002/2003. One of his last major acts with the Alliance was assisting EPS in their winter

energy and import strategy, spurring the utility to immediately begin tendering for imports for the winter heating season. At the Ministry of Energy, he will oversee the massive restructuring of EPS, the reforms and investment in the electricity sector, import issues and the energy efficiency portfolio.

Serbia: Training Leads to Projects: Last spring, the Alliance and EnEffect - the MUNEE partner in Bulgaria -- completed a municipal training course for eleven municipalities, which is resulting in 11 private sector-funded projects. The projects ranged from district heating to hospitals projects. Since the training, the Alliance has been working on project implementation, which included identification of loans. The City of Novi Pazar is the first city to secure financing. Their project includes a large reconstruction job - an upgrade of all windows in a municipal building and the replacement of several boilers. The total project cost was \$105,000, of which the Swiss development agency provided a grant of \$60,000. Novi Pazar put in \$20,000 and took out a 5-year loan from Delta Bank for the remaining \$25,000 with an interest rate of 10% in US\$. Since the Novi Pazar project, the Alliance has convinced Delta Bank to fund the other ten projects to the tune of \$417,000 of the total \$610,000 value of the projects. The municipalities are expected to provide the remainder and will assume the loans. The loan offered to these municipalities is 2% less than what Delta and other banks offered the City of Belgrade on their district heat connection loans. These loans are significant because they provide Delta Bank with real-life experience administering municipal energy efficiency project loans, and a lack of experience is typically a major hurdle to banks agreeing to lend for energy efficiency in the first place.

Serbia: Public Awareness: Another component of the Alliance's public information strategy is to create and distribute a "Ten Ways to Save Energy and Money" leaflet to all 2.5 million households in Serbia. The Alliance developed the design and content of the leaflet for approval by the Ministry and worked with EPS to coordinate printing and distribution of the leaflets with the September utility bills (distributed in early October). The goal of the leaflet is to place in every consumer's hands information about the easiest and least costly ways to maximize energy savings this winter. The leaflet will also contain information about the cost of various heating sources, encouraging consumers to switch to the least cost option available to them. Removing people from electric heating is a major goal of the Ministry, and the Alliance has been promoting this message of 'fuel' switching for over a year with the Ministry and independently.

Ukraine: More Project Development: The Alliance assisted the Education Department of Lviv in development of a tender for energy

efficiency projects in five Lviv schools. The Alliance developed the draft tender and submitted it to the Lviv Education Department to confirm compliance with the city's budget code requirements. The cities of Ivano-Frankivsk and Khmelnytskyi expressed interest in the tender and Ivano-Frankivsk has already begun preparation of an offer that includes building-level control projects (6 sites). All sections of tender documentation are now available in English and will soon be uploaded to the MUNEE web site. For more information, contact Anatoliy Kopets at akopets@ase.org.

Ukraine: The Alliance and the Center for Ukrainian Reforms through Education developed a documentary on energy efficiency in Ukrainian municipalities for broadcasting on national television. The documentary is based partly on the results of USAID-sponsored municipal energy efficiency programs implemented by the Alliance from 1997 to 2001. The documentary takes place in the cities of Khmelnytskyi, Lviv and Lutsk, and one municipal representative from each city provided support for the documentary. Residents of the City of Lviv, municipal officials, directors of communal enterprises, and an Alliance representative were interviewed for the documentary. The documentary materials appeared on the first national TV channel in late September. For more information, contact Anatoliy Kopets at akopets@ase.org.

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HEADLINES FROM THE REGION

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Serbia: In September 2002, the Association of Journalists in Energy was founded by 30 journalists from Serbia's leading daily, electronic and expert media. In an interview on YU Info television, two founding members discussed the importance of energy efficiency and criticized Milosevic's strategy for buying social peace through depressed electricity tariffs as a total disaster for the Serbian economy. The journalists discussed the new era of a market environment and described energy efficiency as the best and the most cost-effective way out of the energy crisis, as well as one of our primary energy resources. The journalists said that the Association intends to work with expert organizations in the country to help organize educational events and seminars.

Serbia: Lighting Replacements in the Public Buildings -- Replacement of ordinary light bulbs with efficient compact fluorescent lamp (CFL) lighting will start in 11 municipalities in Serbia over the next month. This operation aims at reducing electricity consumption in public buildings. The project is being implemented through the Energy Efficiency Committee, which was formed by the Alliance and the Standing Conference of Towns and Municipalities. The committee now

has 35 municipal members and is working to promote municipal energy efficiency. There are many municipalities interested in this operation, but 11 of them were ready to start immediately. Purchase of the CFL light bulbs will be financed through the savings of the efficient lighting over the course of 5 to 6 months. Tenders for the CFL supply are expected in the following days, and municipalities will choose companies with the best offer.

Ukraine: The Kyiv City Administration (KCA) and the State Committee for Energy Conservation (SCEC) have signed a 10-year memorandum of cooperation concerning energy efficiency. The purpose of the memorandum is to decrease the cost of utilities for city residents and to reduce pressure on municipal budgets from energy and subsidy payments. The KCA and the SCEC will develop and introduce legal norms for efficient use of energy resources and exchange experience on mechanisms to stimulate economic development through energy efficiency initiatives. The memorandum also includes a plan to create an Energy Savings Non-Budget Trust Fund in Kyiv.

Also in Kyiv, the KCA and the SCEC passed a rule that, starting in 2003, temperature regulators will be installed in all administrative buildings. Currently, only 173 residential building in Kyiv are equipped with such regulators; 1,500 buildings are equipped with heat meters; 1,100 have hot water meters; 8,200 have cold water meters. The Kyiv City Administration plans to equip almost 9,000 apartments with metering devices by the end of 2002. Such an investment is estimated at about 200 million UAH (\$38.8 million).

The Deputy Mayor of Kiev announced plans to issue Eurobonds worth between \$300 and \$350 million next year to finance environmental projects. Valery Borysiv told Reuters the city expects to issue the bonds with at least 5-year maturities but gave no further details. "In October we plan to choose a company which will give us a credit rating. We are considering several offers." If the issue goes ahead, Kiev will become the first city in the Former Soviet Union to tap the international bond market. Ukraine issued sovereign 7-year Eurobonds in a debt swap in 2000, rescheduling \$2.37 billion in short-term commercial debt for longer term papers. The government plans to return to the international market next year and to issue new sovereign bonds.

EVENTS IN THE REGION

Austria: The International Conference, "Financing of Municipal Projects in Accession States and South-East European Countries" was held November 6, 2002, in Vienna. The conference focused on

financing options for municipal development projects. Instruments and sources of funding were discussed by experts from the European Investment Bank, the European Commission, Kommunalkredit Austria, and other experts from the EU, the City of Vienna and the accession and Eastern European countries. For more information, visit the coming events link at <http://www.utm.at/> .

Macedonia: The Central European Initiative will host the CEI Summit Economic Forum on November 13-15, 2002, in Skopje, Macedonia. Discussion topics will include business and institutional development, strategies and projects for municipal infrastructure, and private sector investment projects. For more information, visit <http://www.ebrd.com/new/index.htm> .

Russia: The Association of Siberian and Far East Cities will host a seminar for heads of the municipal press service on "Housing and Municipal Reform: Partnerships of Media, Citizens, and Local Authority. Problems, Research, and Solutions," on November 21-22, 2002, in Novosibirsk, Russia. For more information, visit the calendar section of <http://www.asdg.ru/databases.htm> , or contact Sarah Meyer at smeyer@ase.org .

Slovakia: The Energy Centre of Bratislava will organize the Third International Slovak Biomass Forum on February 3-4, 2003, in Bratislava, Slovakia. The primary objective of this conference will be to support expansion of the biomass market in Slovakia through information on the current condition of biomass utilization, existing technologies and practical experiences. An ISBF Award will be granted in three categories - Best Thesis, Best Project Implemented and Best Project Idea. The deadline for submission of your entries is December 27, 2002. For more information, contact Miroslava Mitková at mitkova@ecbratislava.sk .

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SPOTLIGHT ON METERING AND SUBSIDIES IN UKRAINE
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Many cities in Ukraine and Russia devote a third or more of their budgets to energy costs, and often the bulk of that money is used to pay heat subsidies. Recent analysis by the Alliance demonstrates something that many experts have been saying for a long time - cities have a financial incentive to improve energy efficiency in housing because it lowers subsidies and saves the cities money. In Lviv, the Alliance examined residential buildings with heat meters, looking at subsidy payments before and after the meters were installed. The reductions in heat payments - created because building managers now had an incentive to reduce heat flow and because the housing

blocs were not charged for heat distribution losses - led to SUBSIDY reductions in two buildings ONLY - of more than 12,000 UAH (\$2,250) in one heating season. Total subsidy amount per apartment fell from 144 to 61 UAH (57%) in the first building and from 111 to 98 UAH (12%) in the second building. Although the heat company lost the income that supported their line losses, non-payment was also reduced, compensating for lost revenues.

The key issue for a city to keep in mind: if subsidies are targeted for the poor only, it is most profitable to invest in energy efficiency improvements in buildings with the largest concentrations of low-income people. It is also good politics. The Alliance is expanding this analysis to other housing blocs in Lviv. For more information, please contact Anatolij Kopets at akopets@ase.org .

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THE ALLIANCE MUNEE OFFICE MOVES TO A NEW LOCATION
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The Alliance's MUNEE regional office has moved from its original location in Krakow, Poland, to a new home in Prague, Czech Republic. The Czech Republic is a logical place to house the office for a number of reasons, particularly because of the Czech government's active participation in SE Europe reconstruction and the Stability Pact. The new address is Na Květnici 20/850, 140 00 Praha 4, Czech Republic, Tel/Fax: (420 26) 122 3352. If you are in our neighborhood, please feel free to drop in and say hello!

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