



Alliance to Save Energy UKRAINE FACT SHEET



PRESENCE

Since 1997, the Alliance to Save Energy (the Alliance) has led the way towards greater energy efficiency (EE) in Ukraine. Through innovative project implementation, a strong focus on demand-side EE, and region-wide education about the range of exemplary EE measures, the Alliance is building a vital network of organizations and information that will continue to nurture Ukraine's internal EE movement as it tackles future energy challenges.

KEY ISSUES

Ukraine has one of the world's highest energy consumption rates per unit of GDP. Market reforms throughout the last decade have left energy supply and housing infrastructure in an outdated and dilapidated state. This has resulted in significant inefficiencies in multi-family housing, hospitals, schools and other public buildings, which, in turn, have contributed to today's high rates of energy consumption.

OBJECTIVES

Since 1997, under the framework of the Municipal Network for Energy Efficiency (MUNEE), the Alliance to Save Energy in Ukraine¹ has spearheaded the use of EE improvements as a tool for managing the country's growing energy demand, and has striven to increase energy affordability by promoting largely low-cost EE improvements that can offset burdensome tariff increases. Through capacity-building, the Alliance empowers municipalities to provide better services to their customers and to promote sustainable use of financial and environmental resources. The results of the initial municipal EE program, launched in Lviv, proved highly replicable. Thus Alliance expanded the program to numerous other Ukrainian cities.

¹ The cities where the Alliance has conducted projects include: Kiev, Lutsk, Lviv, Kovel, Ivano-Frankivsk, Rivne, Khmelnytsky, Ternopil, Slavutych, and Chernihiv.

APPROACH

While implementing projects and conducting informational campaigns in Ukraine has yielded great results, an equally crucial part of the Alliance's program has been to engage with local organizations in pursuit of a common mission of increasing energy efficiency. Some of those partners include:

- State Committee on Energy Conservation (SCEC);
- Association of Ukrainian Cities (AUC);
- Ukrainian Network for Energy Efficient Cities (UNEEC)/Energie Cités;
- Agency for Rational Energy Use and Ecology (ARENA-ECO);
- Association of Ukrainian Energy Service Companies (UAESCO);
- Association for Municipal and Regional Development.

Working side-by-side with these and other organizations, the Alliance has created an effective network for sharing EE information and experience with and among Ukrainian communities. This network has become the foundation for practical implementation of a wide range of EE measures.

In addition to network-building, the Alliance's programs in Ukraine provide technical assistance by training local building engineers on energy management techniques, including energy audits and the utilization of ASE 2.3 and Building Energy Efficiency Project² software; supporting development of energy service companies (ESCOs) and appropriate EE financing methods; hosting study tours and regional workshops; and disseminating EE information in local languages. Although there is still much work to be done, these activities have laid a solid groundwork

² ASE 2.3 is a software tool that monitors energy consumption in public buildings and produces reports that rank energy consumption among buildings monitored. Building Energy Efficiency Project is software for monitoring energy consumption and creating business plans based on those reports. For further information, contact the appropriate individuals listed at the end of this document.

of skills and awareness upon which further EE efforts can be built.

RESULTS BY ACTIVITY

Lviv Energy Efficiency Projects & Municipal Roll-Out

Pilot projects in Lviv focused on weatherization (such as weather-stripping), window and door repair, and thermal control systems in schools. The project at the Boarding School for Children with Cardiovascular Disease was a particular success. This project showed that by installing building-level control technologies, heat use could be reduced from 168 to 35 kWh per week, stimulating a significant reduction in overall energy use while simultaneously increasing comfort. Installation of the new automated control system helped cut the school's energy use by more than 40% and reduced the incidence of seasonal illness by 20 %.

Successes at the Lviv School for Children with Cardiovascular Disease served as a model for the **Municipal Roll-Out**, which expanded the Lviv Municipal energy efficiency program to Ivano-Frankivsk, Kharkiv, Ternopil, Lutsk, Slavutych and Khmelnytsky. As a result, local stakeholders such as city administrations, district heating companies and members of the private sector have gained invaluable experience working on building-level EE projects, as well as the capacity to work independently with each other to implement future projects.

In another project in Lviv, the Alliance installed heat and hot water meters in two residential buildings in order to analyze the effects on government energy-subsidy payments. After the Alliance installed the meters, residential heat and hot water bills decreased by 30-38%. Even after utility tariffs increased in April 2000, the total savings for 313 apartments in two buildings amounted to US \$3,800. These savings enabled subsidy reductions of up to 57% of the total the municipality had previously paid to those residents.

Energy Accounting

In order to calculate, monitor and analyze energy utilization and expenditures in the education department of the City of Lviv, the Alliance developed two software programs – **ASE 2.3** and **Building Energy Efficiency Program (BEEP)**. These programs enable the Alliance and its partners to conduct more precise energy audits, and implement better energy management plans for schools in Lviv and throughout the region.

These software tools organize and present current data on energy consumption that city managers can use to make informed decisions on EE investments. Databases generated from ASE 2.3 rank schools by energy intensity, highlighting the most energy intensive school buildings. These databases have proven useful in underpinning EE development and renovation proposals, a good example being the project proposal to retrofit five schools in the city. Currently, local initiatives are sustaining the use of the ASE 2.3 software - more than 900 schools in the Lviv region now use it to manage their energy use.

Comprehensive use of these software tools, with implementation assistance from the Alliance, has led to further project development. In addition, the Lviv regional administration has recently released a tender for the development of new energy management software that will utilize and build on key elements of ASE 2.3 and BEEP software.

National & Local Policy Reform

During the late 1990s, the Alliance served as the secretariat for the bilateral Gore-Kuchma Working Group on Energy Efficiency, which stimulated dialogue and resulted in EE policy recommendations supported by Ukraine's leading energy policy-makers and experts. On the national front, the Alliance currently works for better EE provisions in municipal and housing policy reforms by speaking at public hearings and networking regularly with ministries, state committees, donors and international financing institutions.



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In the area of local policy reform, the Alliance has fought for municipalities' rights to retain savings from energy efficiency improvements. A notable success is evident in the city of Ivano-Frankivsk, where 30% of energy savings obtained in a school can now be paid as bonuses to the school staff, while the remaining 70% of savings from all schools in the city are pooled and may be used to finance energy efficiency in public buildings.

The Alliance has also educated city officials about the EE policy opportunities that exist within the Ukrainian Municipal Budget Code. This code includes new incentives for cities to save energy – opportunities that many local leaders knew nothing about prior to the Alliance's extensive municipal energy-efficiency programs.

NGO & Municipal Capacity Building

The Alliance has trained Ukrainian environmental non-governmental organizations (NGOs) on EE issues, helping each adapt the concept to its respective mission. In particular, the Alliance helped to establish the *Ukrainian NGO Working Group on Climate Change*. This Working Group is a nation-wide network of NGOs that works on EE and climate-change issues, has a delegate to the Interministerial Commission on Climate Change, conducts country-wide public-awareness tours and develops relationships with international donors and other networks of climate-change NGOs.

The Alliance inspired and facilitated the creation of the *Ukrainian Network for Energy Efficient Cities* (UNEEC). UNEEC has effectively continued the Alliance's networking activities even after USAID reduced funding for EE networking programs.

In the winter of 2006, the Alliance hosted a workshop in Kiev titled *Removing Barriers to Residential Energy Efficiency in Central and Eastern Europe*. The workshop aimed to provide local governments, municipalities and homeowners associations with examples of energy

efficiency projects in the residential sector, as well as solutions for overcoming obstacles to project implementation.

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