

A flagship multi-donor fund to support energy efficiency and environmental investments in the Eastern Partnership region



How E5P works

What is E5P?

Eastern Europe Energy Efficiency and Environment Partnership

The E5P is a €93 million multi-donor Fund initiated during the Swedish Presidency of the European Union in 2009 to encourage investment in energy efficiency and environmental projects in **Ukraine** with the intention to include other Eastern Partnership countries. In 2012, the E5P Contributors decided to expand the initiative to **Moldova, Georgia, Armenia** and **Azerbaijan**.

The Fund is a shared endeavour. It merges financial contributions from the European Union and a group of over ten nations to provide access to both loans and grants for municipal sector projects. The grant allocation criteria are flexible and aim to reduce energy use, pollution and greenhouse gas emissions while avoiding market distortion and increasing competitiveness. The Fund also supports policy dialogue and regulatory improvements.

Map of the Eastern Partnership region







The E5P participates in projects as a co-financier. The donor contributions are used as grants to complement loans provided by six international Implementing Agencies:

- European Bank for Reconstruction and Development (EBRD)
- European Investment Bank (EIB)
- International Finance Corporation (IFC)
- Nordic Environment Finance Corporation (NEFCO)
- Nordic Investment Bank (NIB)
- World Bank (WB)

Governance

The main decision-making and governing body for E5P is the Assembly of Contributors. It consists of representatives from the donors, sets strategy and guidelines and approves grant allocations to projects.

The work to propose, develop and prioritise projects is carried out by the Steering Group, which includes representatives of the recipient country and the Implementing Agencies. The EBRD acts as the Fund Manager of E5P.

> A total of nine projects approved for Ukraine and a strong pipeline established

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E5P in Ukraine – progress so far



The initial focus of the Fund has specifically been energy efficiency in Ukraine. Based on the pledges of over €93 million, a number of projects have been approved so far for Ukraine including modernisation of district heating networks, upgrading of water and wastewater systems with energy saving measures and technical assistance for regulatory reform (see 'Examples

of approved projects' table). It is estimated that over a life span of 15 years the nine projects will collectively save over 772,000 MWh of energy per year and will reduce CO_2 by more than 272,181 tonnes per year – the equivalent of taking more than 121,000 passenger cars off the road.

Recent analysis showed that Ukraine has the highest CO₂ emissions per unit of GDP of any country in Europe. Its energy intensity levels are three times higher than the EU average. Many district heating systems in Ukraine suffer from years of underinvestment hampered by an inadequate tariff structure for energy and gas that tends not to cover the investment costs.

Pledges to E5P (Ukraine) in 2013

Contributor	Pledged (€)	
Denmark	5,000,000	
Estonia	160,000	
EU	40,000,000	
Finland	2,000,000	
Iceland	56,842	
Latvia	50,000	
Lithuania	28,962	
Norway	5,897,916	
Poland	915,106	
Sweden	24,000,000	
Ukraine	10,000,000	
USA	5,325,000	K
Total	€ 93 433	9



Examples of approved projects in Ukraine

vestment projects

E5P Grant: €5.11m & EIB Ioan: €15.54m

Mykolaiev Water/Wastewater Upgrade (total cost €40 million)

Objective: to improve the energy efficiency of water supply, sewage collection and wastewater treatment in the city of Mykolaiev in Southern Ukraine.

E5P Grant: €5m & EBRD Ioan: €10m

Zhytomyr District Heating (total cost €16 million)

Objective: to upgrade the district heating system in Zhytomyr. Measures include introduction of biomass fuelled boilers, replacement of obsolete pipes and Individual Heating Substations.

E5P Grant: €0.5m & NEFCO loan: €2m

Rivne Soshenko District Heating (total cost €2.75 million)

Objective: to replace two worn out boiler houses and upgrade the district heating network in Rivne in Western Ukraine.

E5P Grant: €5m & EBRD Ioan: €10m

Ternopil District Heating (total cost €16.1 million)

Objective: to modernise the district heating system in Ternopil using ESP grants to finance Individual Heating Substations to enable the residents to control their heat supply.

E5P Grant: €5m & EBRD loan: €13m

Zaporizhzhia Energy Efficiency Upgrade (total cost €18.6 million)

Objective: to overhaul the quality of heat and hot water services in the town of Zaporizhzhia on the banks of the Dnieper River.

E5P Grant: €10m & EBRD loan: €21m

Lviv District Heating (total cost €31 million)

Objective: to modernise the district heating system in Lviv in Western Ukraine. Measures include the introduction of new heat pump technology, the use of renewable energy sources and Individual Heating Stations.

E5P Grant: €2.5m & EBRD loan: €20m

Energy Efficiency in Public Buildings (total cost €22.5 million)

Objective: Using an approach based on Energy Service Companies (ESCOs) this pilot project, which can be replicated in other cities, aims to reduce the CO₂ emitted by 71 public buildings in Dnepropetrovsk, Ukraine's fourth largest city.

echnical Assistance projects

E5P Grant: €0.5m & NEFCO loan: €4m

DemoUkraina (total cost €14.5 million)

Objective: a programme for district heating utilities in ten medium sized Ukrainian municipalities. The investment will fund programmes to raise awareness and expertise of energy efficiency measures within each of the ten utilities which can be replicated across the country.

E5P Grant: €1.65m

Technical Assistance to the Regulator Tariff Commission (total cost €1.65 million)

Objective: This project will provide technical assistance to the National Communal Services Market Regulation Commission (the Regulator) with the aim of improving tariff methodology so that it can attract more investment into the municipal sector.





Energy efficiency potential in the Eastern Partnership countries

Along the pipeline: benefits for the Eastern Partnership countries

The Eastern Partnership countries of Moldova, Georgia, Armenia and Azerbaijan all have enormous opportunities to benefit from the E5P fund, just as Ukraine has in recent years. Both investment and technical assistance grants are available from E5P.

The sectors most likely to benefit include:

- District heating modernisation
- Water and wastewater treatment
- Projects to improve energy efficiency in public buildings (schools, kindergartens, hospitals etc)
- Street lightning
- Solid waste management
- Renewable energy (including new markets such as biomass)
- Projects to improve sustainability in municipal and transportation infrastructure

E5P Moldova

Currently energy intensity per capita in Moldova is about three times higher than in EU countries. Since the 1990s district heating networks have deteriorated throughout the country and substantial investments are needed including metering and automation equipment. There are around 4,300 public buildings in Moldova including schools, kindergartens and hospitals. The high costs of heating in some cases exceed the budgets of the public institutions. Energy saving measures in these sectors and also in street lighting and public transport will cut energy costs to end users and reduce Moldova's high dependency on energy imports.

E5P Armenia

Armenia's energy intensity is about 2.6 times the EU average due to the high rate of energy losses and obsolete condition of energy infrastructure. A study performed by USAID (2006–2007) has identified sectors with the largest potential for energy saving measures. About 40% of national energy saving potential is in public and residential buildings and 15% in water supply. There is also great scope for optimisation of energy in street lighting and public transport.



It is estimated that energy efficiency measures can provide up to 20% of energy saving in Georgia as on average the energy needed to produce goods and services in the country is about 2.5 times higher than in the EU. USAID studies show vast untapped potential for energy efficiency and renewable energy in Georgia in many sectors especially for public buildings. Moreover there is significant potential for investment in street lighting, waste management and public transport.



E5P Azerbaijan

The economy of Azerbaijan is the most energy-intensive in the region. Energy efficiency measures in buildings, waste management and district heating rehabilitation are the key sectors to reduce the energy consumption and improve the environment.







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