

Energy Efficiency in Public Buildings and the Use of Renewables and Alternative Energy in Georgia

The purpose of the project is to contribute to the implementation of Georgia's National Determined Contribution submitted to the UNFCCC, developed with EU and German support, and to help Georgia to comply with some of its commitments within the Energy Community Acquis under the EU Association Agreement, including implementation of energy reforms.

The project will demonstrate the applicability of new building codes being developed in the country, in buildings with various types of function and usage, and how these new codes work in different climate zones. Georgia has relatively low energy consumption, a high degree of electrical heating and a green energy mix in the national grid due to a large number of hydropower stations. The CO₂ impact is therefore relatively low; however, overall cost and energy savings are expected.

Climate Zones and Building Location



Image: Nations online

Scope of project

The demonstration project aims to introduce energy efficiency measures and use of renewables in public buildings in Georgia. The focus is on:

- Applicability of new building codes
- How to apply these in three different climate zones
- Buildings with various social and administrative functions and usage - kindergartens, schools and administration buildings

This project comprises 25 public buildings with an area of 70,000 m² and energy consumption of more than 140 kWh/m². None of the buildings are connected to a district heating network, as no such systems exist in Georgia.

Energy efficiency measures include improvements to roofs, walls and pipes, installation of new ventilation systems, installation and replacement of boilers, installation of heat pipes, installation of thermostatic valves and other automation control systems, installation of LED lamps and exterior lighting systems as well as installation of solar PV energy systems. Renewable energy will be introduced wherever possible. The project has a large up-scaling potential.

Expected savings:

- CO₂ emission to be reduced by 1,300 tonnes / year.
- Cost-savings on average EUR 200,000 / year

Other expected benefits

- Demonstration of new building codes for better energy efficiency
- Improved learning and working conditions for 10,000 people, mainly school children, teachers and public employees.

Financing and administration

Total investment for the project is EUR 5.14 million. In addition to NEFCO's EUR 2.83 million loan, the Eastern Europe Energy Efficiency and Environment Partnership (E5P) will support the project with EUR 1.87 million in grant funding. The Ministry of Foreign Affairs of Denmark will finance project consultancy with EUR 0.44 million in grant funding through a bilateral programme with Georgia.

NEFCO's contractual partner is the Ministry of Finance of Georgia, and beneficiaries are the owners of the buildings, that is, the Ministries of Education, Justice and Environment, as well as the Municipalities of Akhaltsikhe, Rustavi and Zugdidi.

The Municipal Development Fund of Georgia acts as project implementation unit (PIU).

NEFCO	EUR 2.83 million	Loan
E5P	EUR 1.87 million	Grant
Ministry of Foreign Affairs of Denmark	EUR 0.44 million	Grant
TOTAL	EUR 5.14 million	

About NEFCO

NEFCO is an international financial institution (IFI) established in 1990 by the five Nordic countries: Denmark, Finland, Iceland, Norway and Sweden with the specific purpose to promote environmental investments and sustainable development. Over the years, NEFCO has financed more than 700 small and medium-sized, private and public projects across different sectors in 60 countries, with a strong focus on Eastern Europe, the Baltic Sea, and the Arctic and Barents Regions. NEFCO has an extensive network within the green community and a proven ability to connect stakeholders and different financiers to relevant projects. As a result, NEFCO has managed to attract a considerable number of bilateral and multilateral fund management assignments. NEFCO's headquarters is located in Helsinki, Finland. It also has an office in Kiev, Ukraine, and is represented through long-term engaged consultants in St Petersburg, Russia.

Read more at www.nefco.org.

About E5P

The Eastern Europe Energy Efficiency and Environment Partnership (E5P) is a EUR 200 million multi-donor fund managed by the EBRD and designed to promote energy-efficiency investments in Ukraine and other Eastern Partnership countries. The fund was established under an initiative of the Swedish government during its presidency of the European Union (EU) in 2009. E5P has funds of EUR 20 million for Georgia. The European Union, as the largest contributor, has pledged EUR 10 million, which is boosted by additional contributions from the Czech Republic, Denmark, Estonia, Georgia, Germany, Lithuania, Norway, Poland, Sweden and the USA. The E5P grants are to help Georgia improve energy efficiency and the environment, contributing to economic competitiveness and policy dialogue. The E5P grants are used alongside IFI loans for municipal investments such as solid waste management, street lighting, local transport and the insulation of public buildings.

Read more at www.e5p.eu.

Ministry of Foreign Affairs of Denmark

This project is part of a larger EUR 4 million neighbourhood support programme from the Ministry of Foreign Affairs of Denmark, "Support to Energy Efficiency and Sustainable Energy in Georgia". All the project development costs have been financed by The Danish International Development Agency (DANIDA) through a trust fund administered by NEFCO.

Read more um.dk/en/danida-en/



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