# Energy Efficiency Demo Projects in Ukrainian District Heating

**DemoUkrainaDH Funding Programme**

The aim with the programme is to demonstrate modern, energy efficient and sustainable district heating solutions in Ukraine. This is done by supporting the development and implementation of up to 20 demonstration projects in different cities. The projects are typically designed to be replicable and feasible to implement successfully in larger scale. The programme provides credit and grant funding together with Technical Assistance to selected Project Partners, publicly owned District Heating companies, to support them in the development and implementation of the demonstration projects.

## DemoUkrainaDH project in Zhytomyr

The demonstration project in Zhytomyr was completed in spring 2015. The project area includes five residential building blocks and a day care centre. The project concept was to

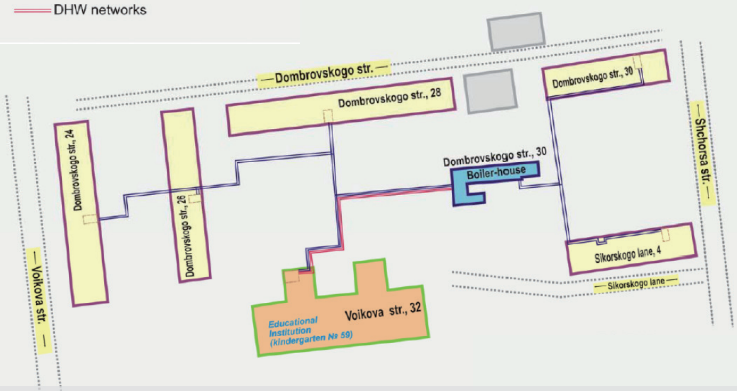
(i) Introduce a demand driven heat supply to customers, by installing individual heat substations with control of heat supply in relation to outdoor temperature.

(ii) Reduce losses in heat distribution by replacing heat distribution pipelines in the area, in total 0.8 km (double pipe)..

(iii) Improve efficiency of heat production by installation of new condensing boilers and a heat pump for provision of domestic hot water during summer.

## Project results and achievements

The project in Zhytomyr demonstrates best practices in technical design, procurement and project implementation in a small-scale project providing valuable experience and knowhow for the bigger projects to come for rehabilitation of the district heating systems in Zhytomyr. The combination of efforts for introduction of a demand driven heating system, reduction of losses and improvement of production efficiency is expected to bring savings in the order of 40 % and improved services to the just over 600 residents in connected buildings and of the kindergarten with 80 children. The project is also profitable for the utility with an expected payback time of less than six years.




*Scheme of new pipelines and picture from the renovated boiler house*

## Project facts

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| Total investment: | 565 000 EUR |
| Pay-back time: | 4,7 years |
| Energy savings: | about 40% or 1800 MWh/yr |
| Reduction of CO2 emissions: | 365 ton/yr |

## Contact

NEFCO office Kiev, Ukraine.
Tel. +380 44 287 0106,
Email info@nefco.org.ua

District Heating Company:
Zhytomyrteplo¬komunenergo,
Tel. +380 412 47 19 30,
Email teplo@teplo.net.zt.ua

www.demo-dh.org.ua

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