

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 Oleksandria

The demonstration project in Oleksandria was completed in autumn 2015. The project includes:

- (I) Installation of new gas boilers in a former central heating substation. The new boilers are condensing type with high efficiency (>100 %) and capacity of 7.5 MW, which will supply heat to an area with high-rise apartment buildings, with in total 1,800 apartments, in the centre of the city.
- (II) Replacement of district heating pipelines and obsolete and deteriorated pipelines in basements of the buildings.
- (III) Installation of a small-scale CHP for production of electric energy for the needs of the boiler house.

Project results and achievements

The project in Oleksandria demonstrates - in a centrally located district - how the district heating service level can be increased. The new system will give a better controlled supply of space heating for the public and private users of the district heating services, leading to improved indoor climate and a higher degree of customer satisfaction. The new system will also be able to supply the buildings with domestic hot water all year. This will increase the comfort - an important achievement especially for kindergartens and schools.

The project in Oleksandria has a high replication potential as the district heating company in Oleksandria alone has 22 more central substations. Continuation of the modernization could stop and roll-back the on-going disconnection of customers from the district



Reconstruction of the CHS-room into mini-CHP

heating system. This will in turn lead to increased energy efficiency for the city.

As a result of reduction of losses and improvement of production efficiency, gas savings of more than 30% and electricity savings of 20% are expected. The project is also profitable for the utility with an expected pay-back time of less than four years.

Project facts

Total investment: 655, 000 EUR

Pay-back time: 3.5 years

Energy savings: about 30% or 7.000 MWh/yr

Reduction of CO₂ emissions: 1,380 ton/yr

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