KHARKIV DISTRICT HEATING PROJECT FEASIBILITY STUDY

Customer:
European Bank for Reconstruction and Development (EBRD) and communal enterprise “Kharkiv District Heating Networks” (KDHN)

Project developers:
Finnish company Pöyry Energy Oy (former Electrowatt-Ekono Oy) and Agency for Rational Energy Use and Ecology (ARENA-ECO)

Implementation site:
Communal enterprise “Kharkiv District Heating Networks” (KDHN)

Objective:
Identification and feasibility study of EBRD and KDHN affordable project components with total investment of €15 million.

Project description:
The project is aimed at efficiency increase and reliability improvement of Kharkiv heat supply system as well as decrease of heat supply services cost. It consists of four main components:

1. Closure of 47 ineffective gas fired building level boilers and connection their consumers to the district heating (DH) system;
2. Renovation of 60 heat group substations and closure of 15 heat substations with connection of their consumers to the DH system through individual heat substations;
3. Installation of 358 individual heat substations;
4. Installation of cogeneration unit with 2 MWe and 1.3 MWh capacities in the district boiler house.

Expected results:
- Annual natural gas consumption decrease - 17.9 million m³;
- Annual electricity consumption decrease - 1900 MW*h;
- Annual GHG emissions reduction – 39000 CO₂-e;
- Investment payback period – 5.9 years

PROJECT “IDENTIFICATION OF ECONOMICALLY FEASIBLE HEAT SUPPLY OPTIONS FOR THE CITY OF IVANO-FRANKIVSK”

Site - Ivano-Frankivsk district heating (DH) system

Project objective - identification of modernization options for DH system of the city of Ivano-Frankivsk with the minimum net cost of heat.

Project task - technical and economic assessment as well as analysis of DH system modernization options:
- Reconstruction of existing DH system;
- Closure of boiler houses with removal of primary network and construction of new heat sources based on existing central heat substations;
- Boiler houses closure with removal of primary and secondary networks as well as central heat substations and construction of building level boiler houses;
- Implementation of apartment level heat supply systems consuming natural gas;
- Electric heating and electrical water heating.