iC consulenten

Energy Efficiency in Public Buildings in the City of Chernivtsi, Ukraine

Client
NEFCO

Country
Ukraine

Duration
from 02.2015 to 08.2015

Services of iC

- Feasibility study
- Priority Investment Programme
- Conceptual design
- Capacity building
- Procurement support
- Renewable energy development
- Socio-economic analysis
- Application for E5P financing
- ToR for PIU Support

Project objectives

The overall objective of the project was to implement energy saving measures in municipal buildings in the city of Chernivtsi

Project description

The assignment focused on preparation of a comprehensive Feasibility Study, providing solutions to reduce consumption of electric and thermal energy to improve the comfort level, meeting objectives of the city's long-term strategy and complying with specific requirements for grant financing, debt service coverage and financing through internal cash generation

Project data

After evaluation of 51 buildings, 33 buildings (including 9 historical) have been approved by the City for the Priority Investment Programme: schools, kindergartens, the policlinic and the hospital. The project aimed to improve the learning environment and classroom conditions of more than 14,000 pupils

Project specifics

- **Building envelope:** Thermal insulation of walls, roofs, attic floors, and ground floors; replacement of windows; installation of new insulated doors
- **Heating system:** Installation of individual heating substation with automatic control; hydraulic balancing / rehabilitation of heating network; installation of new heating system (alternative energy usage)
- **Ventilation systems:** Installation of local decentralized ventilation systems; rehabilitation of existing central ventilation system
- **Hot water preparation:** Installation of timers at electrical boilers; installation of decentralized heat pumps
- **Electricity consumption:** Replacement of existing energy inefficient equipment and incandescent bulbs
- **Non energy efficiency measures:** Installation of water saving taps and shower sleeves; rehabilitation of outer areas / drainage systems; Repairing of façades; rehabilitation of sloping roofs; reinstallation of emergency staircases, etc.
- Development of the **Energy Management System** for the City

Services

- Baseline study / Technical assessment of buildings
- Training and capacity building
- Assessment of alternative energy sources
- Benchmarking of buildings' energy performance
- Socio economic context
- Conceptual design
- Definition of Priority Investment Programme and development of a long-term strategic Investment Programme
- Financial projections and implications for the City budget
- Procurement support
- Development of application for E5P financing
- Preparation of the Terms of Reference for PIU support