

Feasibility Study for Energy Efficiency Improvements in Public Buildings of Irpin municipal establishment, Ukraine

Client

CES clean energy solutions
(contracted by NEFCO)

Country

Ukraine

Duration

from 02.2016 to 09.2016

Services of iC

- Feasibility study
- Priority Investment Programme
- Conceptual design
- Renewable energy development
- Capacity building
- Energy Management System
- Assessment of potential for Energy Performance Contracts implementation
- Application for E5P financing



Project objectives

The main goal of the Project is to increase energy efficiency of public buildings in Irpin municipal establishment

Project description

The assignment is to prepare a comprehensive Feasibility Study, and to provide solutions to reduce the consumption of electric and thermal energy that improves the comfort level, meets the objective of the city's long-term strategy and complies with the specific requirements for grant financing, debt service coverage and financing through internal cash generation.

Another important task is to implement and promote solar heating solutions, increase the awareness of energy performance contracts and recommend possible objects for their implementation

Project data

The city suggested to analyse all budgetary buildings within the Irpin municipal establishment. After evaluation of all 53 buildings, 21 (educational and medical facilities) have been approved by the City for the Priority Investment Programme. The project would improve the learning environment and classroom conditions for more than 7,000 pupils and the thermal comfort and inside climate for around 100,000 patients of the medical facilities

Project specifics

The following measures were foreseen for the building rehabilitation:

- Replacement of windows and external doors
- Installation of automatic control system for heat supply
- Wall Insulation
- Radiator replacement
- Ventilation systems rehabilitation
- Establishment of thermal screens between the walls of rooms and radiators
- Rinsing and balancing the heating system
- Replacement of incandescent lamps with energy saving fluorescent lamps

Services

- Baseline study & Technical assessment of buildings
- Energy & Water efficiency assessment
- Scoping demonstration project for solar heating
- Benchmarking of buildings energy performance against good international practices
- Definition of Priority Investment Programme
- Conceptual design
- Review of possibilities and readiness for EnPC - energy performance contracts
- Financial projections and implications for the City
- Organization of training and capacity building workshops
- Development of application for E5P financing
- Development of Energy Management System for the city