Vackor kindergarten

Location: 1188 Budapest, Csolt Street 4.

Use of the building: Kindergarten

• Built: 1978-1982

Heated gross floor area: 670 m2

Primary energy before renovation: 264.63 MWh/a

CO2 emissions before renovation: 50.96 t/a

Description of the pilot project:

- Short description of the building (use and purpose): Vackor Kindergarten accomodate 98 children, 9 teachers and 1 technical staff.
- What was the state before renovation: Its main features are encompassing walls: PREMISOL external panels, inside partition walls are made of ALBAFAL partition panels. The inner frontage court wall is not insulated; furthermore, the big glass panels of the corridor are out fashioned, metal framed doors and windows with a poor insulation value.
- EE measures implemented: insulation of walls 10 or. 20 cm EPS; metal windows replacement; insulated. PVC; flat roof installation 30 cm; XPS above ceiling 30 cm; insufflated insulation; heat ventilation system + heat; back ventilation; 37,125 kWp solar panel; installation

Quick summary



Main work-steps/milestones:

- Acquisition of an external expert
- Preparation of the feasibility study
- Preparation of the tender documentation
- Acquisition of an ESCO company

Documentation needed:

- Collect current status data
 - Plans drawings
 - Energy consumption data
 - Feasibility study
 - Tender documentation





Stakeholder involvement:

Leading: municipality workers and experts,

users of the target buildings

Other: local residents, ESCOs, authorities,

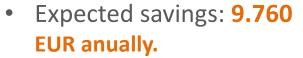
Investment and financial model:

Investment cost: 569.912 €

Financial model: ESCO



Results:



Primary energy savings:

262,035 MWh/year

Emissions: 50,58 tCO2

annually

Return on investment

(ROI): 25 years

Energy performance

classification: 3,87 kWh/m2

Lessons learnt



Biggest milestones:

- Preparation of the feasibility study
- Preparation of tender documentation
- Acquisition of the ESCO company

Biggest obstacles:

- Chosing the most suitable building for nZEB
- Availability of ESCO tender documentation sample.
- Missing hungarian good examples
- There are few ESCO companies operating in the hungarian market.





What could've been done different?

 Cooperation with foreign municipalities that have already made such investment (nZEB & ESCO)



What would we recommend?

- Cooperation with municipalities that have already made an nZEB & ESCO investment.
- Availibilty of Energy
 Performance Certificates for the building stock.
- Use of the experience and tools and documentswere developed by the eCentral project

 For more info: (institution website, email from a relevant contact person...)