


BUILDING GOOD PRACTICE

Building of a Municipal Office – Kostelec, Vysočina

GENERAL INFORMATION		
Name of the public building renovation:	Realization of energy savings in the building of Municipal Office Kostelec	
Index of Building Good Practice (kWh/m²)	75,7 kWh/m ²	
Sub-group	Public buidlings	
Desc ription	Photo	
Address	Municipal Office Kostelec, Kostelec 87, 588 61 Kostelec	
Public sector contractor		
Architect	Energetická agentura Vysočiny, Nerudova 1498/8, 586 01 Jihlava	
Engineering consulting		
Date of construction	In 70's of 20 th century	
Legal aspects (e.g.: protected property)	There is no legal aspect, the building is a property of the municipality	

Date of renovation	Renovation was running in 1999 – ceilings insulation, in 2009-2010 – insulation of the envelope and replacement of windows and doors to the recommended values according to ČSN 730540-2
Nature of the work (short description)	Ceilings insulation, insulation of the envelope and replacement of windows and doors to the recommended values according to ČSN 730540-2. In 2010 was also realized the change of the heating source and heating of the hot water – gas condensing boilers.
Budget and source of financemnt	The total budget was 2 348 000 Kč (ca 95 850 €), sources of the owner were 1 540 000 Kč (ca 62 850 €), subsidy sources 808 000 Kč (ca 33 000 €).

AVAILABLE RESULTS	
What were the big problems (in terms of energy efficiency) to tackle?	Change of the heating system, securing the financial sources.
Has this building been already analysed and certified?	An energy audit of the building was elaborated. A certification according to a regulation 178/2007 Sb, has not been done yet.
What are the key innovative energy efficiency measures undertaken through the renovation?	Insulation of the enclosure wall, replacement of windows and doors, change of the heating system.
What are the measurable improvements in terms of energy efficiency in electricity and heating (kWh saved)?	In comparison with the previous status of the year 2007, the saving by heating was 196 GJ, i.e. 50%.
What is the payback period (years)	When we exclude the subsidy from the European funds, the simple payback period for the owner of the complex (Municipality Kostelec) is 17,5 years.

ENERGY EFFICIENT MEASURES	
Energy efficient measures of the building envelope	Apart from floors, there was also improved the roof composition, insulation of exterior vertical walls using the thermal insulation contact system layer (width 14 cm) in 2010, replacement of windows and doors in 2009.
Energy efficient measures of the heating system	Change of the heating system, disconnecting the old nonefficient boiler-room, establishment of an own boiler-room with gas condensing boilers.
Energy efficient measures of monitoring	Regular monitoring of the energy consumption. Based on this

energy	monitoring, other needed measures were recommended.
Energy efficient measures regarding behaviour (množství uspořené energie jako přímý výsledek změny chování s možnou následnou osvětovou kampaní nebo školeními)	Change of behaviour of the staff. Very important is the acceptance of the implemented measures and optimal use of energy – e.g., frequency and time of ventilation.
SUSTAINABILITY OF THE RENOVATION	
Design and choice of sustainable materials?	For the action were selected materials with a long term durability and recycling options, or with other possible use.
Sustainable building site management? (sorting waste, water...)	Yes – according to the valid legislation of the Czech Republic.
Application of a valuation method (BREAM? HQE? Others?)	None.

BUILDING MAINTENANCE: life of the building after the renovation	
Is the building object of the energy monitoring? Is there a responsible manager?	Yes, the building is object of the energy monitoring. There is a responsible manager of the building – the deputy mayor Ing. Mašek
Who is in charge of the maintenance of the heating system of the building?	Deputy mayor of the municipality
Who is in charge of the day to day energy management?	Deputy mayor of the municipality
Are there some specific measures to raise energy awareness and to implicate users in energy efficiency?	There was organized a seminar informing about energy monitoring and energy savings.

FUNDING	
What financing plan?	Subsidy 34,4%; own sources 65,6%
Innovative or specific aspects in the method of financing (European funds or loan, energy performance contract,...)	Within the implementation of the project „Insulation of the building of the Municipal Office Kostelec“ were used sources from European structural funds.
What is the balanced budget for each stakeholder	The amount of rent stayed as it was before. The rent is only increased by the year inflation.
<ul style="list-style-type: none"> • Energy costs for tenant/owner 	

<p>before /after</p> <ul style="list-style-type: none"> • Increase in the rent 	
<p>Is there any specific economical indicators (payback time on investment, global cost, ...)</p>	No

TRANSFERABILITY	
<p>Transferable aspects according to the partner in charge of this example of good practice</p>	<p>Transferability of planning (forming a partnership, choosing priorities, setting up a renovation building teams, etc.)?</p> <p>It is very well transferable to other partners and countries.</p> <p>Main transferable aspects are: choice of priorities, forming a partnership with the owner of the building, face-to-face detailed consultation with implementer of the action. This detailed familiarization with the whole process and each step needed for implementation led to the successful implementation of the project and give the basis for the good cooperation and communication with the building owner.</p>
	<p>Transferability of the process of renovation (management structure, monitoring system, implication of end users, participation, etc.)?</p> <p>System EMC developed by the company SIEMENS is usable within the whole EU. The SIEMENS company has its branch offices across the EU and its main database is in Switzerland.</p>
	<p>Transferability of results (good solutions, adaptability, change of behaviour, etc.)?</p> <p>Refurbishment of the insulation of the building, adaptation and modification of the heating system.</p>
<p>Transferable aspects according to all the partners of Serpente project</p>	<p>The other partners will analyse and validate these good practices. During the process of validation the partners will take on the role of auditors because they will assess and improve the effectiveness and portability of good practices in their context.</p>
	<p>The validation process will promote a systemic approach in local competent public administrations. Moreover, this process of selection and validation is a peer review and entails the mutual role of experts and auditors depending on typology of buildings and partner's expertise.</p>



SOURCES	
Publications	Valid standards and regulations
Website	www.eav.cz
Interviews	Consultations with designers, administrator of the building, own experience.