

# **ENERGETIC BUILDING RETROFIT – 10 REASONS FOR EFFICIENCY AND COST EFFECTIVENESS**

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1. Resources & consumption – energy can be saved in the building sector with the means of high energy efficiency and optimal cost-value ratio through the oncoming boost zenith of fossil energy sources and the increasing demand.
2. Comfort & feeling good – insulation with passive house standards lead to an overall warm surface temperature of the inside of the building envelope as well as an even temperature distribution leading to an optimal room climate comfort.
3. Construction protection & no mould – good insulation, reduction of thermal bridges, air-tightness and mechanical ventilation prevent condensation and formation of mould; the reason for many construction damages can so be avoided.
4. Indoor air quality & health – ventilation technique provide healthy indoor air through continuous supply of outdoor air. The indoor pollutions are continuous removed. A comparable standard is hard to achieve through the means of window ventilation.
5. Construction value – the applied passive house components in the building envelope are sustainable for 40 years – a renewed highly uneconomical retrofit cycle of 15-20 year is not applicable.
6. Rentability – the living space is long-term attractive for tenants through high standards and high living comfort. Vacancies and labour turnover rate have decreased – this effect is well established in the management analyses calculations.
7. Energy costs – the extra expenses (“the second rental fee”) stay low over long-term, even at strongly increasing energy costs: energy efficiency guarantees an assurance against increase in energy costs.
8. Urban development – the retrofit of the buildings from the 30ies to the 70ies lead to a technical strengthening and a social, cultural and urban revaluation.
9. Employment creation – 400,000 employments could be created or obtained through an aimed applied subsidy politic. The subsidy application should be

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looked at as an economical “perpetuum mobile”, since the resulting savings effect is higher.

10. Climate protection – it is possible to save 90% CO<sub>2</sub> with cost-value ratio with a broad effect. Insulation and energy efficiency must be made attractive, because they represent an environmentally and economic-politically extreme thankful activity field.