

Results of Empirical Analysis - Cost Optimal Level

- Cost optimal level (cost of construction, energy costs + service 35 years:
Low energy building without automatic ventilation system

Low energy building = heating demand/m² floor space ca. 45kWh/m²a according to ENERGY CERTIFICATE
(= End energy heating 55kWh + end energy hot water 30kWh)
- Addition costs for automatic ventilation system with heat recovery (+50 Euro/m²) for „very low energy building“ + additional costs for insulation for passive standard (windows, insulation, planning + 60 €)
= additional rent component of 0,25 - 0,55 € per m² and month
+ costs of service (+ 0,10 € per m² and month) cannot be compensated by additional reduction of energy consumption
- Which is true for theoretical calculation (energy consumption in passive house: - 30 kWh => - 0,20 € per m² and month)
- And „more true“ by empirical evidence as consumption in passive houses/ver low energy buildings is above calculated demand
- Taking the real consumption into consideration and calculating primary energy (electricity for ventilation) the ecological advantage of very low/passive buildings is very low if any!