

Developing the energy saving building to more resource efficiency

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Abstract

In Central Europe in the meanwhile many efforts have been made to reduce the amount of energy to heat buildings. Main measures are insulation, aeration and use of solar energy to reach low energy houses. Passive houses may not use more energy than 15 kWh/ m² a. In order to reach a resource efficient house this standard should be broadened with respect to the building materials of the house and to resources leaving the house by solid waste and waste water streams. In view of the effects of global climate change not only heating but cooling as well should be considered.

In the focus of this presentation are aspects of the nexus between energy, water and nutrition which play an important role in operating buildings e.g. the question of reducing the amount of energy for warm water, the recycling of chemical energy of solid waste and waste water, the recovery of nutrients and of reducing energy for cooling.