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SAVE AGE Project - 'Energy sins' in care homes identified

The noticeable high energy consumption in elderly homes promised from the outset a big potential for energy savings. Therefore, an energy analysis was carried out in ten German homes for elderly, leading to the identification of energy saving measures. Besides energetic optimisations of the buildings and systems, the employees and residents' behaviours play a big role when it comes to saving energy.

In these ten pilot homes energy efficiency measures and instruments have been developed based on the energy analysis. In the framework of this initial energy analysis the main energy consumption- and reference – data has been collected. Sometimes, the energy consumption per resident and year equals the energy consumption of a family of six people living in a single-family house. Focused interviews with the directors and employees delivered information about energy management and energy consciousness in the care homes.



Yearly heat and electricity consumptions of the ten care homes over three years EN?

Intensive measures are often systematically realized by the roof organisations, but still the reduction of consumption depends on the quality of the realization. A remarkable potential for energy saving with soft measures could be identified. The optimisation of the energy supply and a consequent transformation of the energy management as well as the employees' behaviour are determining. Typical "energy sins" in the areas of care, kitchen, laundry and housing technology could often be identified. Some examples are the aeration by the care attendants, the incorrect washing temperature or loading and the use of inefficient lights.

The most frequent problems regarding energy behaviour:	
Area of care	aeration, heater operation, light
Kitchen	time of use of heated trolley use of cooling cells (temperature adjustment and storage behaviour) use of dishwasher
Laundry	use of washing machines in times of peak load washing temperatures checking of machines loads
Inhabitant, visiter, volunteers	aeration,heater operation, light
The most frequent problems regarding energy data and technique:	
Energy management	insufficient collection and use of energy data
Heater, ventilation	handling and regulation
Lighting	inefficient lights no motion detector in function rooms
computing	aged equipment
kitchen,laundry,	no warm water connection for dishwasher and washing machine / no gas dryer