Energy
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Project

Energy reduction potentials of elderly people's households

Oversized apartments - the elderly could lead more energy-efficient lives

Oversized apartments - the elderly could lead more energy-efficient lives

By moving into smaller apartments or converting and renovating their homes, elderly people could lead more energy-efficient and environmentally friendly lives. This research project examines the challenges and potentials associated with such schemes.

To lead a more energy-efficient life while remaining in the family home come retirement time, one should consider further construction or implementation of energy-efficient renovation measures. *Source:* Shutterstock

At a glance

- Many elderly people live in oversized houses or apartments. As a result, they consume more energy than necessary.
- They could however remedy the situation by moving into a smaller flat or remodelling their house to make it more energy efficient.
- To encourage senior citizens to undertake such changes, the researchers suggest four measures. One of them has already been successfully tested in a pilot project.

After the children have left the family home, many elderly people remain in their large apartments or houses. However, this is detrimental to the climate and the environment due to the energy cost generated not only by heating energy, but also by so-called grey energy consumed when new dwellings have to be built, while elsewhere there are unused living spaces. The potential for energy savings is enormous, especially for the ageing baby boom generation.

The researchers involved in this project sought to determine how to motivate senior citizens to adopt more energy-efficient and environmentally friendly housing options. In more than 80 interviews conducted in German-speaking and French-speaking Switzerland, the researchers asked elderly people about their housing situation. Respondents were either homeowners, co-owners, or tenants in apartments, cooperatives and retirement homes.

The housing situation beyond retirement - a taboo subject

In the eyes of most of the interviewees, the housing situation after retirement is a taboo subject. This attitude is problematic, since the survey also revealed that only people who are willing to deal with their own ageing are also willing to change their living situation in order to save energy. This discussion is a key factor, often triggered by children moving out of the family home. In their interviews and case studies, the researchers undertook a more detailed investigation of the opinions of senior citizens regarding three different energy-saving strategies:

1. densification of the inhabited space, either by including subtenants or through structural modifications (e.g. creation of two housing units or a granny annexe)
2. energy-related renovation of a property
3. move to a smaller apartment.

Elderly people aim to lead an independent life as long as possible

The survey revealed that respondents who moved to a smaller apartment often did so because their children had left the family home or because they wished to reduce the size of their household and live in a senior-friendly environment. Many interviewees were willing to move if the new accommodation was accessible to mobility-impaired people and had an elevator, and if it was centrally located and easily reached by public transport. In addition, many people were willing to consider moving, if it allowed them to remain independent longer.

Concerns were also expressed regarding the move: anxiety due to having to leave the familiar environment, and fear of higher rents or a lack of space for hobbies. On the other hand, people who had already reduced the size of their household stated that they had become accustomed to having less space, that they experienced a "sense of liberation from material worries" and had a good feeling because they had given up their homes for the benefit of larger families.

Climate protection motivates people to undertake renovations

Instead of moving, some respondents had renovated or modified their homes to increase their energy efficiency. Two out of three interviewees stated that their motivation was climate protection and reduced energy consumption rather than energy cost reduction. Architectural measures indeed reduced energy consumption, increased living comfort and gave respondents a sense of having helped protect the environment. However, some of the interviewees did not take on a structural change or renovation for lack of financing options.

In order to assess the true energy saving potential, the researchers studied concrete scenarios. They concluded that moves to smaller homes and energy-efficient renovations are the most promising measures. On the other hand, structural densification measures contribute much less to the saving of energy, as this is not a high-profile subject at the present time. By changing their housing situation, seniors could save a total of 13,480 gigawatt hours of energy by 2050, which is the electricity consumption of approximately 5300 two-person households per year. The largest fraction, i.e. 7,230 gigawatt hours, is due to savings in heating energy, and represents 4.3 percent of the energy-saving target set in the Swiss Confederation's Energy Strategy 2050.

Four proposed measures

So how can the ageing baby boom generation be encouraged to make these useful changes? In collaboration with experts and target groups, the researchers developed four proposals for appropriate measures. Firstly, a communication campaign and secondly consulting services can provide information regarding energy-efficient housing. Thirdly, small-scale housing must be made available and, lastly, the political framework conditions for changes in the housing situation must be adjusted. These could include higher plot ratio allowances for energy-related renovations and more attractive credit options for senior citizens.

One of these measures, a new information and consulting service for people over 55, has been field-tested in collaboration with the Swiss Homeowners Association (HEV).

Two interactive workshops provided interested parties with the opportunity to learn about house renovations and transformations, and about moving options.

The evaluation of this project revealed that the workshops motivated participants to plan their future housing situation, to discuss the subject with experts as well as their own children or even, in some cases, to give up their current living space and to move into a smaller flat.

Produkte aus diesem Projekt

- Energieeffizient im Alter
  Date of publication: 19.06.19
- Babyboomer verbrauchen zu viel Heizenergie
  Date of publication: 19.06.19
- Energiesparpotenziale in Haushalten von älteren Menschen
  Date of publication: 19.06.19
- Smart small living? Social innovations for saving energy in senior citizens' households by reducing living space
  Date of publication: 01.10.19
- Neue Lebensphase – Neue Wohnsituation: Das versteckte Potenzial des Einfamilienhauses nutzen
  Date of publication: 30.11.-1
- Projekt EnWiA – Energieeffizientes Wohnen im Alter (only available in German)
  Date of publication: 20.04.20
- Projekt "EnWiA": Dank kreativer Wohnkonzepte im Alter energieeffizient leben
  Date of publication: 28.05.20

Contact & Team

Dr. Heinz Rütter
Rütter Soceco AG
Sozioökonomische Forschung + Beratung
Weingartenstrasse 5
8803 Rüschlikon

+41 44 724 27 70
heinz.ruetter@ruetter-soceco.ch

Heinz Rütter
Project direction

Werner Hässig

Pino Hellmüller

Carsten Nathani

Anja Umbach-Daniel

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