

Towards a 20% lower energy bill for care institutes with the help of architects

In the Netherlands the financing of the care sector is under pressure. In the past care institutes received fixed exploitation budgets, which were based on historic expenditures. Of course this scheme provided no stimulus at all for energy efficiency improvements. Because the regulation for financial support of the care sector is being revised thoroughly, care institutes have now become responsible for their own buildings. As a result of these changes they have lower budgets for buildings and for building maintenance and a focus on efficient exploitation becomes more important.

In a special study afternoon on “Energetic care buildings”, the whole process of transformation towards sustainability in existing care buildings was discussed among an audience of architects, facility managers and care institute directors. The event was organized by the BNA, the Royal Institute of Dutch Architects.

Financing

Guus Berkhout, port folio manager of the Triodos Bank, showed the audience that sustainable buildings have on average an 11% higher financial return than non-sustainable buildings. A sustainable building will bring more rent earnings, lower interest and tax rates and it will thus result in a better return on investment.

Energy savings in a European dimension

Erik Alsema, from W/E consultants sustainable building, presented the latest results from the European project Save Age which aims to support residential care homes for elderly people in reducing their energy bill. As part this project 10 care homes in the Netherlands were visited for an energy audit and for interviews with staff. A review of the energy bills from these homes showed that the average electricity consumption per resident was three times higher than in a Dutch regular household. Gas consumption (for space heating) per resident was about 60% higher than in a household. A number of energy saving options with short pay-back times were presented based on the practical lessons from the site visits.

Financial regulations and legislation

Speakers from TNO and the National Energy Agency showed how care institutes could save 20% on their energy costs. By considering sustainable solutions already during the design phase architects can give an important contribution to this target. The changes in the financing scheme were reviewed, whereby not the historic exploitation costs are at the basis of the received financial support from the government, but the number of patients and their care need. For this reason it has become interesting to invest in energy saving measures and in other improvements that will increase the sustainable character and future value of the building. Energy saving potentials as well as present and future regulations concerning energy neutral buildings were also reviewed.

The building practice

Two building managers and energy coordinator of the Free University Medical Centre showed how they implemented sustainability in practice. A combined heat and power installation provides heat and electricity to the campus area. Excess power and heat are sold to third parties. An energy monitoring and management systems keeps track of energy consumption and gives insight about the returns of energy saving measures. Efforts are made to achieve BREEAM scores of Good to Excellent for new buildings

A number of architects presented practical examples of sustainable building renovation, for example the renovation of two hospital buildings and for a residential care home for people with mental retardation.



Kennemerland Hospital building before and after renovation (source: EGM architecten)

Presentations (in Dutch) of the "Energetic Care" study afternoon can be found at <http://www.bna.nl/Over-BNA/BNA-Onderzoek/Energieke-zorgbouw>