Project no. 337-058

Architecture and Energy – architectonic strategies for the low-energy buildings of the future

Project manager: SBi – Rob Marsh – Tel.: +45 2751 9507

This project will look into how a general architectonic strategy can minimise overall primary energy consumption, while at the same time enhancing architectonic quality. The results will be reported in a book which will be used in training and supplementary training and distributed to practising architects.

Results:

- Reasonable glass sections can create airy, light rooms.
- Light rooms with a modest depth and great room height can create a better visual quality.
- Daylight and architecture considerations can be combined.

Solar heating:

- Glass sections can be proportioned on the basis of the need for daylight and in order to keep the need for cooling to a minimum.
- Light homes with equally divided glass areas can minimise their energy consumption.
- Light offices divided into zones with large, north-facing glass areas can minimise their energy consumption.

Carcass:

- The insulation level of the climate screen can be enhanced to some extent.
- Light buildings with extended façade areas can minimise their energy consumption.
- A high heat capacity should be combined with low energy consumption for material production.

Technology:

- Natural ventilation and electricity savings can minimise energy consumption from an overall perspective.
- Solar cells integrated into the structure can create energy-neutral buildings.
- Light buildings can make better use of electricity-saving technologies.

danskenergi

www.elforsk.dk

ELFORSK