

Research project MA 39, TU Vienna:

“Calculation of energy performance figures based on Austrian standards for energy performance certificates for residential and non-residential building with low-energy level”

Aim of the research project:

Within the project an Excel-tool for estimating the heating demand of low-energy-buildings is developed. Furthermore the project contains a study of the TU Vienna to determine the heat load for proving the heating of air (this part of the project will lead to a standard in 2010).

Abstract:

In recent years two ways of calculating energy performance figures did appear: on the one hand calculations based on OIB-guideline 6 and Excel-tools created by MA 39, on the other hand such based on the low-energy-building projection package. In some cases the two paths deliver different results. This project makes a contribution to bring the two ways close. The developed tool for estimating the heating demand of low-energy-buildings is one instrument to guarantee this.

But the proof of a low heating demand is only one requirement for low-energy-buildings. The second essential condition is the proof of a low heat load. The valid European standards show no possibility to demonstrate such low heat loads. The fundamental study of the TU Vienna combines the theoretical background with the existing standards and will lead to a standard heat load calculation for low-energy-buildings.

Comment: The designed Excel-tool is a prototype and isn't validated yet. The part of the TU Vienna renders a fundamental study that forms a possible basis for further standards. This is the reason why the study shows only fundamental figures and no detailed formulation.