



Proposal/Contract no.: FP6-503186

**DEMOHOUSE**

Design and Management Options for improving the energy performance of Housing

SPECIFIC TARGETED RESEARCH OR INNOVATION PROJECT

Thematic Priority 6

**Deliverable 23**

**Use of the Common Evaluation Protocol in the design phase**

Due date of deliverable: October 18<sup>th</sup>, 2005  
Actual submission date: December 1<sup>st</sup>, 2005

Start date of project: October 18<sup>th</sup>, 2005

Duration: 4 years

**NKUA**

Ifigenia Farrou, Mattheos Santamouris

Draft report

## **Executive summary**

This report evaluates the usability and applicability of the Common Evaluation Protocol that was used by all the design teams of the DEMOHOUSE project (TREN/04/FP6EN/S07.35744/503186). The Common Evaluation Protocol was developed in the start of the project, as a means to have a common basis for the evaluation of the environmental and energy performance of the buildings in the different countries.

The Common Evaluation Protocol considers all the subsystems of a building like the microclimate, the building envelope, the indoor environment, the building services and the control-management systems. It suggests the evaluation of the projects in terms of sustainability, energy and socio-economic aspects. The protocol is described in detail in deliverable 22 of Work Package 5 of the DEMOHOUSE project.

The evaluation of the use of the protocol was carried out using a questionnaire that was prepared by NKUA for the purposes of this analysis and was distributed to the partners. In total, the protocol was used for the Austrian project (IFZ), the Danish project (CENERGIA) the Greek project (NKUA), the Hungarian project (EMI) and the Spanish project (LABEIN). In this way all buildings were evaluated in terms of sustainability, energy and socio-economic aspects using the questionnaires/tools that were defined in the protocol. The results were obtained in a homogenous format and the comparison of the projects in the different countries was feasible. Also, the final design of the buildings was compared to the initial targets and optimizations were carried out during the design phase in order to achieve the desired levels. In overall, the protocol was assessed as a concise and a detailed method for the evaluation of the buildings.

However, following the partners' remarks, the protocol can be subject for further improvements. Mainly these include reformation of its structure as it was noted that there is no balance between its different modules and some parts are emphasized, and adaptation of some of the defined national tools to the needs of the whole group of the DEMOHOUSE project.

The Common Evaluation Protocol suggests a holistic approach for the evaluation of the buildings. This is very interesting but something new for many EU markets and makes difficult its use in other projects apart from the DEMOHOUSE .

Summarizing, it can be concluded that the usefulness of the Common Evaluation Protocol depends on the peculiarities of each project.