HEVAC Air Conditioning Group – Information paper
Clarification on simulation software approved for use with Part L; May 2006

There is some confusion over which simulation software can be used to demonstrate compliance with Part L (2006) of the UK Building Regulations for non-domestic buildings. HEVAC has produced this brief information paper to help clarify the situation for its members and their customers/clients.

1 Background

The National Calculation Methodology for the EPBD was defined in The Department for Communities and Local Government (DCLG) consultation document on the energy-related parts of the Building Regulations and the Energy Performance of Buildings Directive, issued in July 2004. The procedure for demonstrating compliance with the Building Regulations for buildings other than dwellings is by calculating the annual energy use for a proposed building and comparing it with the energy use of a comparable 'notional' building. Both calculations make use of standard sets of data for different activity areas and call on common databases of construction and service elements. The same process is likely to be used to produce an 'asset rating' in accordance with the EPBD. The NCM therefore comprises the underlying method plus the standard data sets. More details will be contained in a document to be published by DCLG.

The NCM allows the actual calculation to be carried out either by accredited simulation software, or by a new simplified tool based on a set of CEN standards. That tool has been developed for DCLG by BRE and is called SBEM - Simplified Building Energy Model. It is accompanied by a basic user interface - iSBEM.

2 Introduction to SBEM

SBEM was developed by the Building Research Establishment (BRE) on behalf of the UK Government's Department for Communities and Local Government (DCLG), formerly the Office of the Deputy Prime Minister (ODPM).

SBEM is a computer program that provides an analysis of a building's energy consumption. SBEM calculates monthly energy use and carbon dioxide emissions of a building given a description of the building geometry, construction, use and HVAC and lighting equipment. It was originally based on the Dutch methodology NEN 2916:1998 (Energy Performance of Non-Residential Buildings) and has since been modified to comply with the emerging CEN Standards.

SBEM makes use of standard data contained on associated databases and available with other software.

SBEM is available from www.ncm.bre.co.uk. The website contains a route for feeding back comments or queries on the software and urgent queries can be handled on a telephone Helpline – 0870 4608141.

SBEM is currently accessed through a basic interface called iSBEM, available as part of the SBEM package. In addition, SBEM will be incorporated by other software producers into their own software packages, which will then be approved by DCLG for use in calculating the energy performance of buildings.

3 Simulation software approved for use with Part L

In addition to SBEM, DCLG intends to approve a number of more sophisticated simulation tools as alternative means of satisfying the National Calculation Methodology. At the time of writing, two such tools have been approved.

In summary, therefore, the following software has been approved by the Department for Communities and Local Government for use in calculating the energy performance of buildings, for the purposes of Regulation 17A of the Building Regulations (Part L).

They are:

- SBEM
- IES 'Virtual Environment' software, Version 5.5
- EDSL TAS Version 9.0.9
- SAP (for dwellings)

If others are approved they will be announced on the DCLG website and on http://www.ncm.bre.co.uk/news.jsp?id=76

4 Helpline

The DCLG have set up a telephone helpline, for more general enquiries on Part L, on 0845 365 4357

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30 May 2006