The Energy Performance of Buildings Directive - EPBD

Overview on the implementation in the different Member States

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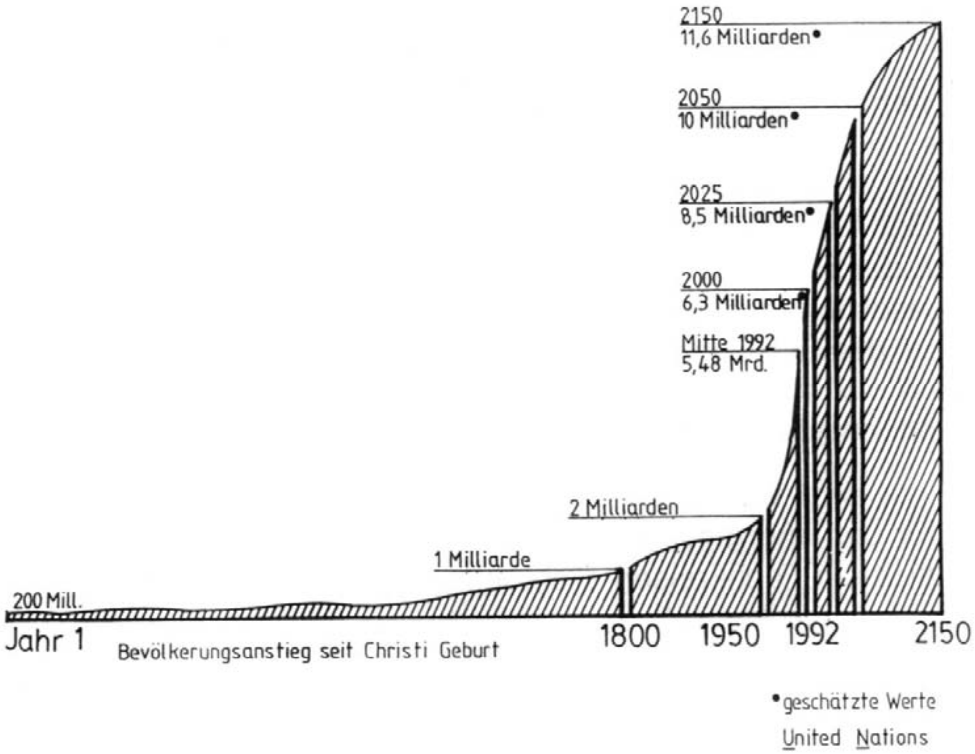

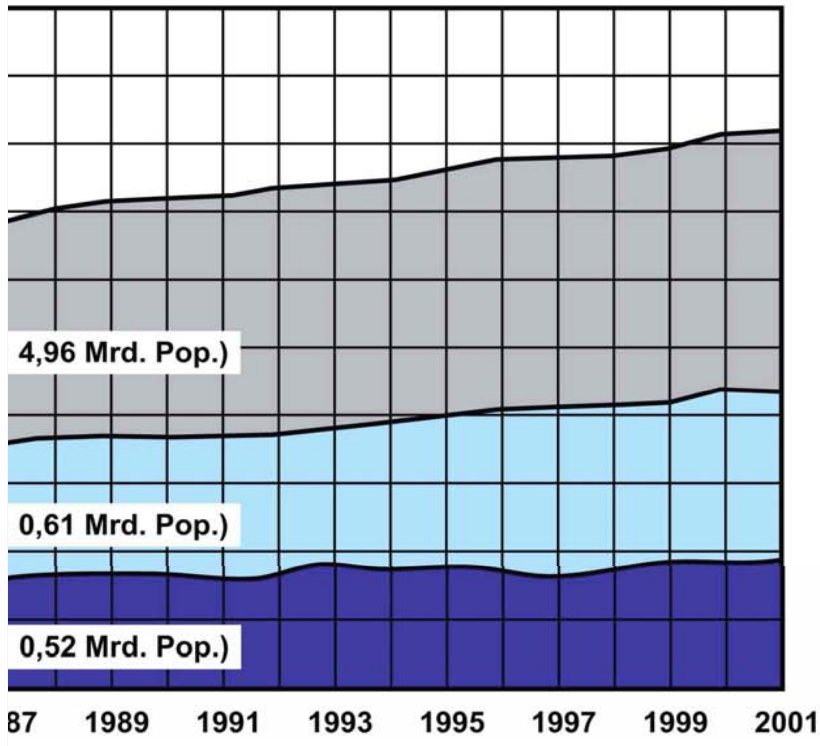

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The Background

1992: World Summit Rio

Worldwide Reduction of the Greenhouse Gas Emissions in 2000 to basis of 1990

1995: World Summit Berlin

25% Reduction of CO_2 Emissions in Germany in 2005 on basis 1990

1997: World Summit Kyoto

European Burden-Sharing (EU wide 30% Reduction, Germany 40%)

2002: EU (Parliament and Council)

Adoption of the Energy Performance of Building Directive (EPBD)

2006: EU – Member States

National implementation of the EPBD required

The Energy Performance of Building Directive

4.1.2003 EN Official Journal of the European Communities L 1/65

DIRECTIVE 2002/91/EC OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL
of 16 December 2002
on the energy performance of buildings

THE EUROPEAN PARLIAMENT AND THE COUNCIL OF THE EUROPEAN UNION,

Having regard to the Treaty establishing the European Community, and in particular Article 175(1) thereof,

Having regard to the proposal from the Commission (1),

Having regard to the opinion of the Economic and Social Committee (2),

Having regard to the opinion of the Committee of the Regions (3),

Acting in accordance with the procedure laid down in Article 251 of the Treaty (4),

Whereas:

(1) Article 6 of the Treaty requires environmental protection requirements to be integrated into the definition and implementation of Community policies and actions.

(2) The natural resources, to the prudent and rational utilisation of which Article 174 of the Treaty refers, include oil products, natural gas and solid fuels, which are essential sources of energy but also the leading sources of carbon dioxide emissions.

(3) Increased energy efficiency constitutes an important part of the package of policies and measures needed to comply with the Kyoto Protocol and should appear in any policy package to meet further commitments.

(4) Demand management of energy is an important tool enabling the Community to influence the global energy market and hence the security of energy supply in the medium and long term.

(5) In its conclusions of 30 May 2000 and of 5 December 2000 the Council endorsed the Commission's action plan on energy efficiency and requested specific measures in the building sector.

(6) The residential and tertiary sector, the major part of which is buildings, accounts for more than 40% of final energy consumption in the Community and is expanding, a trend which is bound to increase its energy consumption and hence also its carbon dioxide emissions.

(7) Council Directive 93/76/EEC of 13 September 1993 to limit carbon dioxide emissions by improving energy efficiency (SAVE) (5), which requires Member States to develop, implement and report on programmes in the field of energy efficiency in the building sector, is now starting to show some important benefits. However, a complementary legal instrument is needed to lay down more concrete actions with a view to achieving the great unrealised potential for energy savings and reducing the large differences between Member States' results in this sector.

(8) Council Directive 89/106/EEC of 21 December 1988 on the approximation of laws, regulations and administrative provisions of the Member States relating to construction products (6) requires construction works and their heating, cooling and ventilation installations to be designed and built in such a way that the amount of energy required in use will be low, having regard to the climatic conditions of the location and the occupants.

(9) The measures further to improve the energy performance of buildings should take into account climatic and local conditions as well as indoor climate environment and cost-effectiveness. They should not contravene other essential requirements concerning buildings such as accessibility, prudence and the intended use of the building.

(10) The energy performance of buildings should be calculated on the basis of a methodology, which may be differentiated at regional level; that includes, in addition to thermal insulation other factors that play an increasingly important role such as heating and air-conditioning installations, application of renewable energy sources and design of the building. A common approach to this process, carried out by qualified and/or accredited experts, whose independence it is to be guaranteed on the basis of objective criteria, will contribute to a level playing field as regards efforts made in Member States to energy saving in the buildings sector and will introduce transparency for prospective owners or users with regard to the energy performance in the Community property market.

(11) The Commission intends further to develop standards such as EN 832 and prEN 13790, also including consideration of air-conditioning systems and lighting.

(1) OJ C 213 E, 31.7.2001, p. 266 and OJ C 203 E, 27.8.2002, p. 69.
(2) OJ C 36, 8.2.2002, p. 20.
(3) OJ C 107, 3.5.2002, p. 76.
(4) Opinion of the European Parliament of 6 February 2002 (not yet published in the Official Journal), Council Common Position of 7 June 2002 (OJ C 187, 28.8.2002, p. 6) and decision of the European Parliament of 10 October 2002 (not yet published in the Official Journal).
(5) OJ L 237, 22.9.1993, p. 28.
(6) OJ L 40, 11.2.1989, p. 12. Directive as amended by Directive 93/68/EEC (OJ L 220, 30.8.1993, p. 1).

Article 1

Objective

The objective of this Directive is to promote the improvement of the energy performance of buildings within the Community, taking into account outdoor climatic and local conditions, as well as indoor climate requirements and cost-effectiveness.

This Directive lays down requirements as regards:

(a) the general framework for a methodology of calculation of the integrated energy performance of buildings;

(b) the application of minimum requirements on the energy performance of new buildings;

(c) the application of minimum requirements on the energy performance of large existing buildings that are subject to major renovation;

(d) energy certification of buildings; and

(e) regular inspection of boilers and of air-conditioning systems in buildings and in addition an assessment of the heating installation in which the boilers are more than 15 years old.

The Energy Performance of Building Directive

Main Articles

3 Adoption of methodology (asset/operational; CEN/national methods)

4 Settings of energy performance requirements (Final/Primary energy;CO_2)

5 New buildings (alternative systems have taken into account; >1000 m²)

6 Existing buildings (major renovation; reqirements component or whole)

7 Energy performance certificate (scheme design; public buildings)

8 Inspection of boilers (inspection schemes or advice options)

9 Insepction of air-conditioning systems (A/C or also ventilation systems)

10 Independent experts (how to ensure independency; certification procedure)

11 Review (evaluation of the directive with experience from application phase)

14 Committee (assisted Commission by Member States representatives)

15 Transposition (Implementation of several articles only, extentions)

Article 14 Committee – Working groups

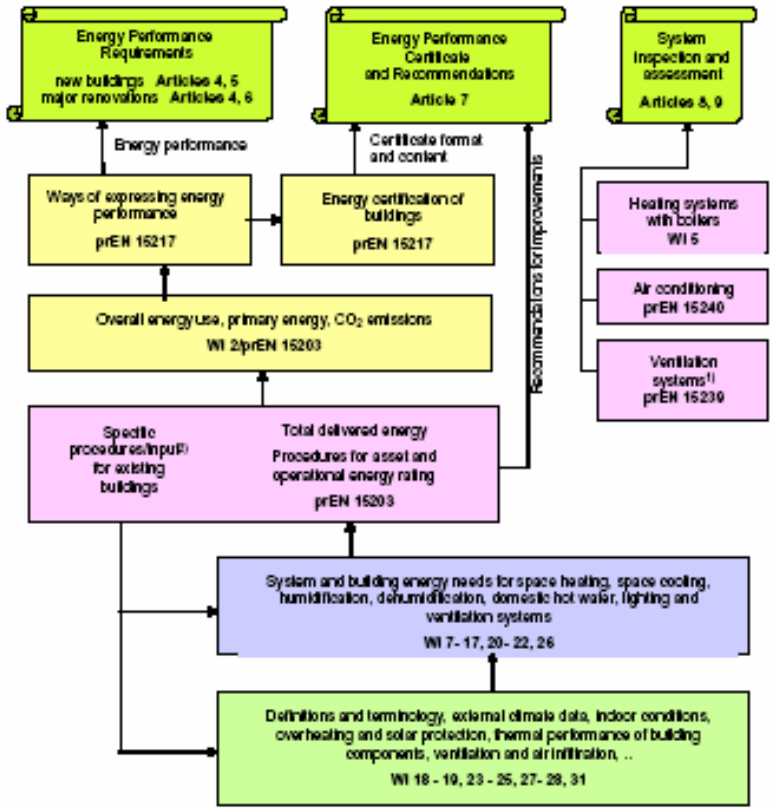
- CEN review and advice group
- Berlaymont Building certification

The Energy Performance of Building Directive

CEN Mandat 343

- 31 Work items in 5 TC´s
- More than 40 prEN´s appr. 2500 pages

CEN/BT WG 173 EPBD N 27

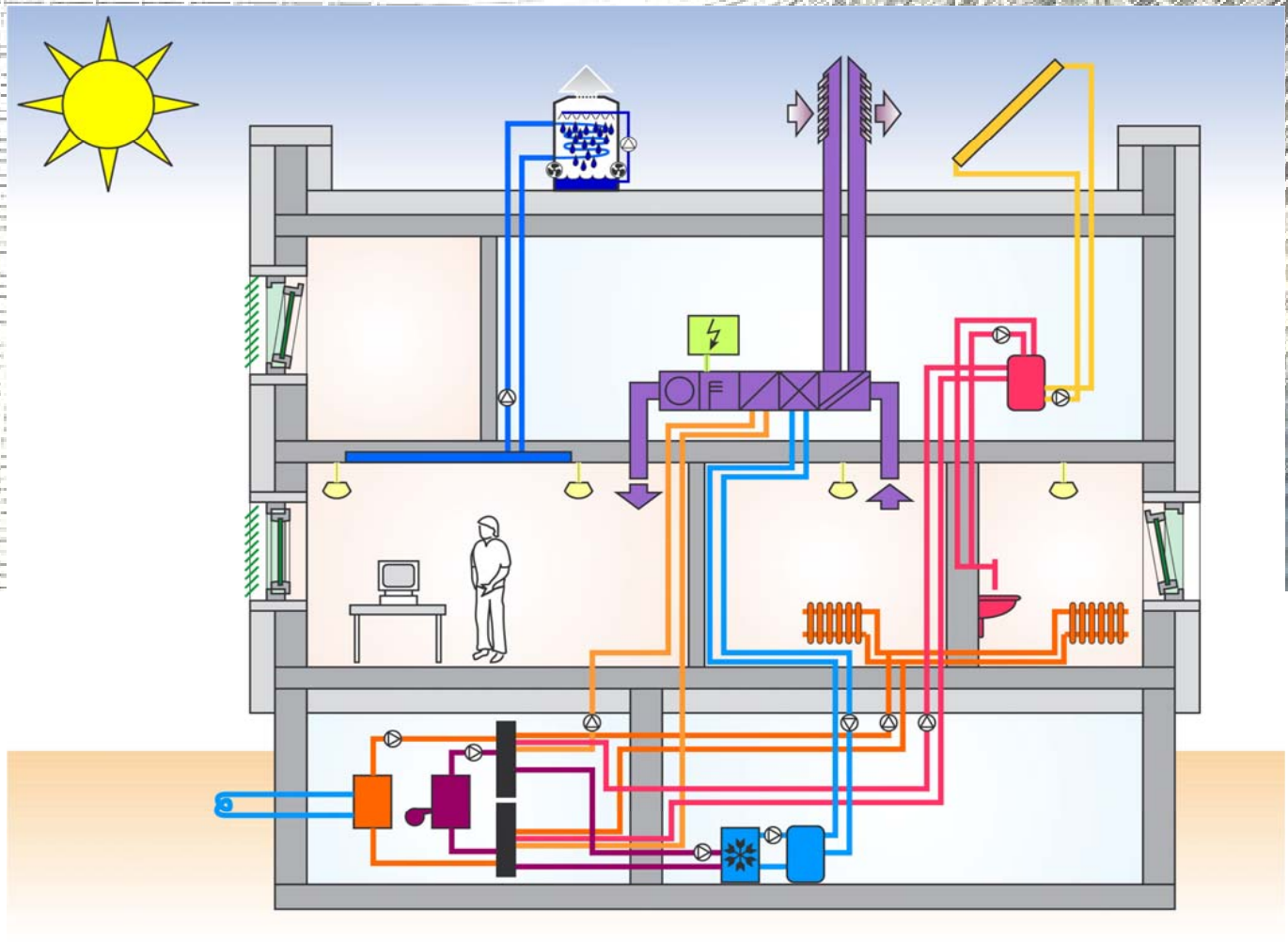


1): Not explicitly mentioned in the Directive

2): Unless already covered by WI7-28

Figure 1 – Methodology for calculating energy performance (Article 3 and Annex)

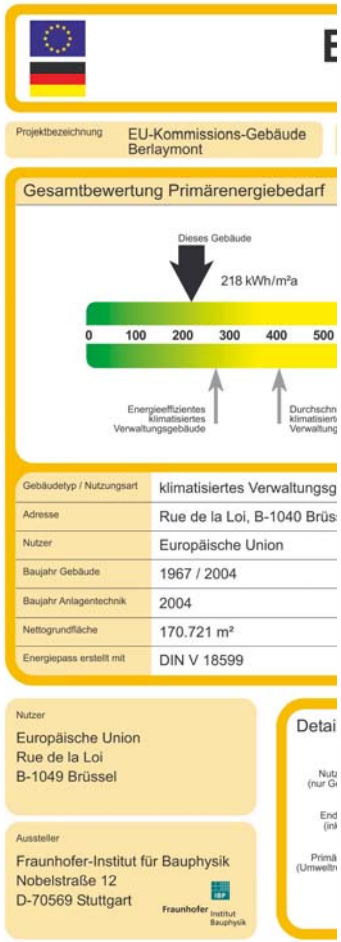
The Approach

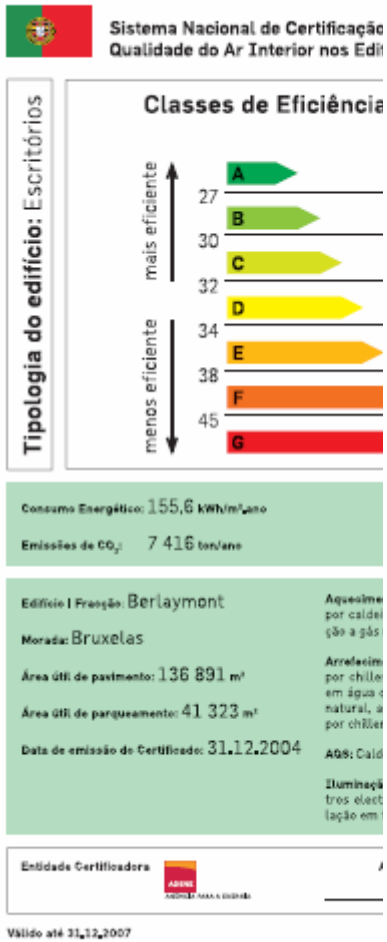


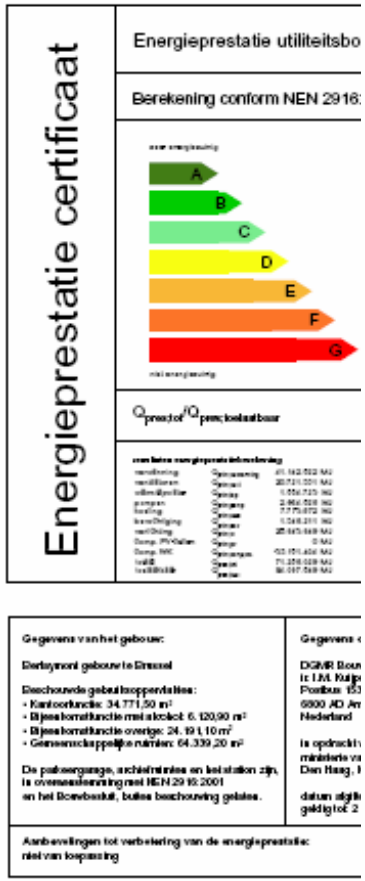
Germany

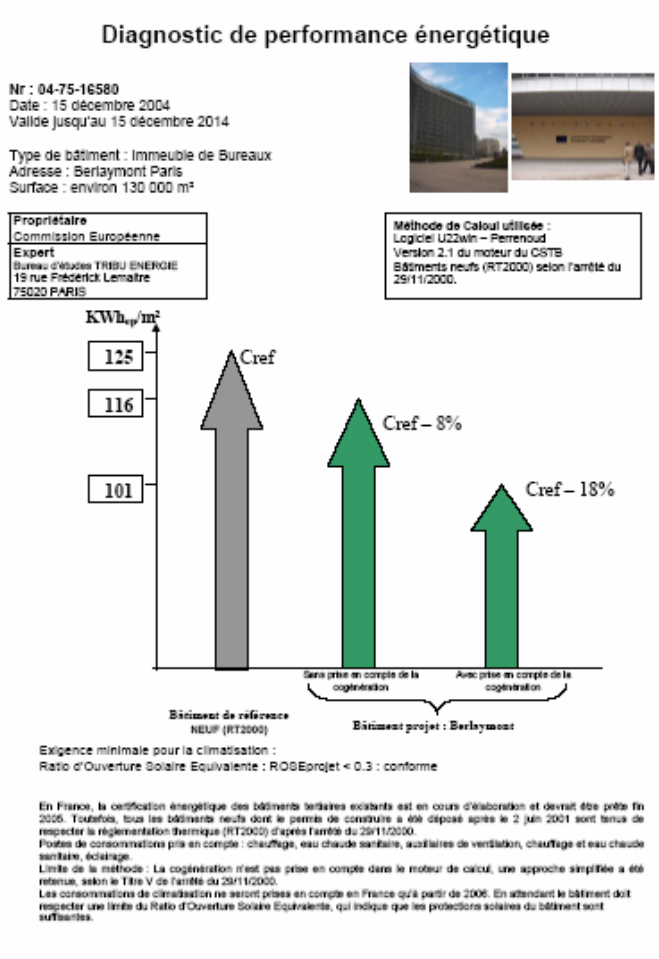
Certification of the EU-ECO-BUILDING „Berlaymont“

Certification leaflets










Germany
ENERGIEPASS

The Buildings Concerted Action for the Transposition of the Buildings Directive

- 23 countries working together on a voluntary basis
- Getting inspiration and ideas from one another
- Towards limiting the range of solutions to the common challenge of transposing the EPBD
- Every country gains from the exchange
- Developing a European philosophy for Energy Efficiency in Buildings

Now sent to about 450 persons all over the EU: CA, EC, National colleagues, SAVE projects, individual requests, …

WEBZINE # 5
August 2005

CA-PRACTICAL | COUNTRIES | CERTIFICATION | TRAINING | SAVE | EVENTS | PUBLICATIONS

Newsletter
Concerning the European Building Performance Directive Concerted Action

If this message appears without its colors and pictures, copy this link on to your internet navigator:
http://www.epbd-ca.org/Webzine5.htm

Work is going on:
EPBD-AIVC conference in Brussels (September 21-23) aims to provide additional support

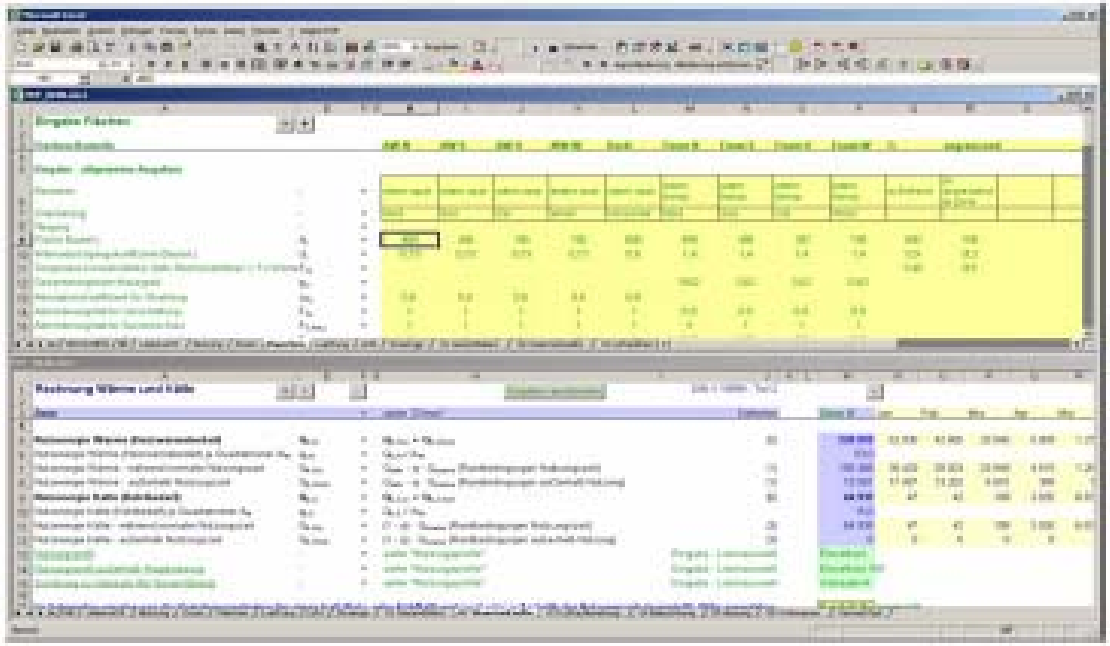
The various deadlines for the implementation of the EPBD are quickly approaching, and many challenges still lie ahead of us. Work is going on at various levels : preparation of legislation by the Member States, development of support tools and actions (software, training, etc.), standardisation work, a whole range of SAVE projects aiming to provide support to the Member States and the stakeholder, a wide range of activities

CA-EPBD Achievements on Calculation Methodologies

- Enhanced MS understanding of the scope and the diversification of EPBD CEN work
- Exchange of general ideas for the integration of renewables in national methodologies.
- Information and analysis exchange forum for implementation of the standards in collaboration with relevant EIE projects
- Mutual information about all the available national approaches, demonstrations of all the available software packages, adopted simplifications and default values

CA-EPBD Achievements on Calculation Methodologies

First calculation tools are available for practice



Download at www.ibp.fraunhofer.de/wt/normen.html

Status of the planned MS approaches (22 countries)

- 19 countries planned to have national procedures; 3 regional
- all countries have procedures for residential and 19 for all types of non residential buildings; 3 only for special types
- 19 countries will use asset rating, 7 benchmark syst., 7 operational
- 9 counties refered to nat. standards, 12 published in ordiances
- 7 countries implements CEN standards fully, 5 partly, 10 in a pragmatic way
- 2 countries are ready with all documents, 11 have draft versions, in 9 countries documents are still under development

The Energy Performance of Building Directive

More information monthly available

in the Webzine of the

EPBD Concerted Action Project

www.epbd-ca.com