



## **TAKING THE NEXT STEP TOWARDS ENERGY EFFICIENT BUILDINGS**

Recommendations for improving the Energy Performance of Buildings Directive  
(2002/91/EEC)

## Why we must act now to improve the energy efficiency of buildings

Over the next few years one of Europe's toughest challenges will be to live up to our commitment to reduce greenhouse gas emissions agreed under the Kyoto protocol, whilst also delivering on the promises made in Lisbon to make Europe the most competitive region of the world.

To place this challenge within the context of buildings, it is important to realize that in Europe over 40% of all energy is used in buildings, that the potential to reduce carbon dioxide emissions from buildings is over 400 million tons per year (almost the total EU commitment agreed under the Kyoto Protocol) and that reducing emissions from buildings is cost effective and can provide a significant return on investment.

As Europe faces up to remaining competitive in an ever more carbon constrained world, further actions to reduce carbon dioxide emissions from buildings are essential.

## An important first step but we need to be more ambitious

The current Directive on the Energy Performance of Buildings (EPBD), is a good first step towards capturing the huge cost-effective potential for CO<sub>2</sub> emission reductions that lie within buildings. However, research by Ecofys demonstrates that the bulk of the emission reduction potential (90%) lies outside the EPBD as most residential buildings are not included. Eurima believes that the best way to capture a significant amount of this untapped potential is to build on the current Directive. Simple measures that could make significant improvements include:

- 1 Removing the 1 000 m<sup>2</sup> threshold** in order to include residential housing in renovation, as this would more than double the emission and energy savings that could be made
- 2 Focusing on the building envelope** through obligations to pass specific legislation on thermal insulation
- 3 Getting information to consumers now** rather than later by improving the obligations for certification
- 4 Aligning the Directive to real life conditions** by ensuring the certification takes account of the costs of maintenance and life span of different measures
- 5 Moving from words to action** by laying down requirements for owners to carry-out the recommended improvements and by providing them with the incentives to support this

# Five Steps Towards a More Ambitious Directive

## Background

The Directive on Energy Performance of Buildings enters into force on 4 January 2006. It requires Member States to introduce:

- 1 A general framework for a methodology of calculation of the integrated energy performance of buildings
- 2 The application of minimum requirements on the energy performance of new buildings
- 3 The application of minimum requirements on the energy performance of large existing buildings that are subject to major renovations
- 4 Energy certification of buildings, and
- 5 Regular inspection of boilers and of air-conditioning systems

## Step 1 | Including small buildings and all renovations

By excluding smaller buildings (< 1000 m<sup>2</sup>) from the scope of the Directive, the opportunity to more than double the emission reduction potential of the Directive from 34 million tons to 70 million tons a year has been missed. Additionally, as the Directive focuses the requirements for energy efficiency improvements on the act of major renovation rather than on structural renovation (e.g. it focuses on the cost of renovating a roof as a percentage of the value of the property rather than the act of renovating a roof) often highly cost-effective energy efficiency measures will not take place.

### ACTION POINTS

- Remove the 1 000 m<sup>2</sup> threshold for existing buildings.
- Amend the rules covering renovation to be based on structural renovation rather than an arbitrary concept of major renovation.

## Step 2 | Focusing on the building envelope

The building envelope (i.e. external and structural walls, and roof) normally remains intact for the lifetime of the building. The insulation used in these elements also typically lasts for the lifetime of the building meaning that it is key that this envelope has the optimum level of insulation.

### ACTION POINTS

- Amend the EPBD to require Member States to pass legislation of the thermal insulation level of the building envelope.

## Step 3 | Getting information to consumers now

The EPBD requires an energy certification at the moment of transfer of ownership or of the transfer of rentals. This is good but not sufficient as it means that many consumers will not have the proper information they need to inform their decision making for many years to come.

### ACTION POINTS

- Amend the requirements on certification to make energy certification obligatory after each renovation and/or structural improvement of the building.

## Step 4 | Aligning the EPBD to real life conditions

Both the calculation of the energy performance of the building and the energy certification of the building is a snap-shot at the moment of assessment. Yet, there are quite different performances of the various devices for energy savings. Some last for the life of the building (e.g. insulation) others last for 10 or 20 years only. Some are maintenance free whilst others regularly require maintenance. The EPBD does not take into account this difference and therefore does not reflect real life conditions.

### ACTION POINTS

- Amend the Directive so as to calculate all energy saving devices in the building on a uniform period of 50 years (this is based on the lifespan foreseen under the Construction Products Directive [89/106/EC], bearing in mind that insulation stays forever with out maintenance required.

## Step 5 | Moving from words to action

An energy certification provides information but is no guarantee that the necessary works will be carried out. In addition, home owners and businesses alike need incentives and support mechanisms to ensure that the information they have obtained can be transferred into real improvements in the energy efficiency of buildings.

### ACTION POINTS

- Create an addendum to the EPBD inciting the seller to implement all the costs-effective measures as mentioned in the audit report and the certification document.
- Add to the Directive specific requirements on Member States to develop national incentive and support schemes.

Using existing technology such as proper insulation, Europe could reduce greenhouse gas emissions from the building sector alone by approx. 400 million tons, in a cost-effective way – this is almost the total commitment made in Kyoto.

EURIMA has made a number of concrete proposals to improve the EPBD.

The specific text proposals can be downloaded from [www.eurima.org](http://www.eurima.org).



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