



- EU Energy Policy for Buildings
  - Recast Directive proposed -

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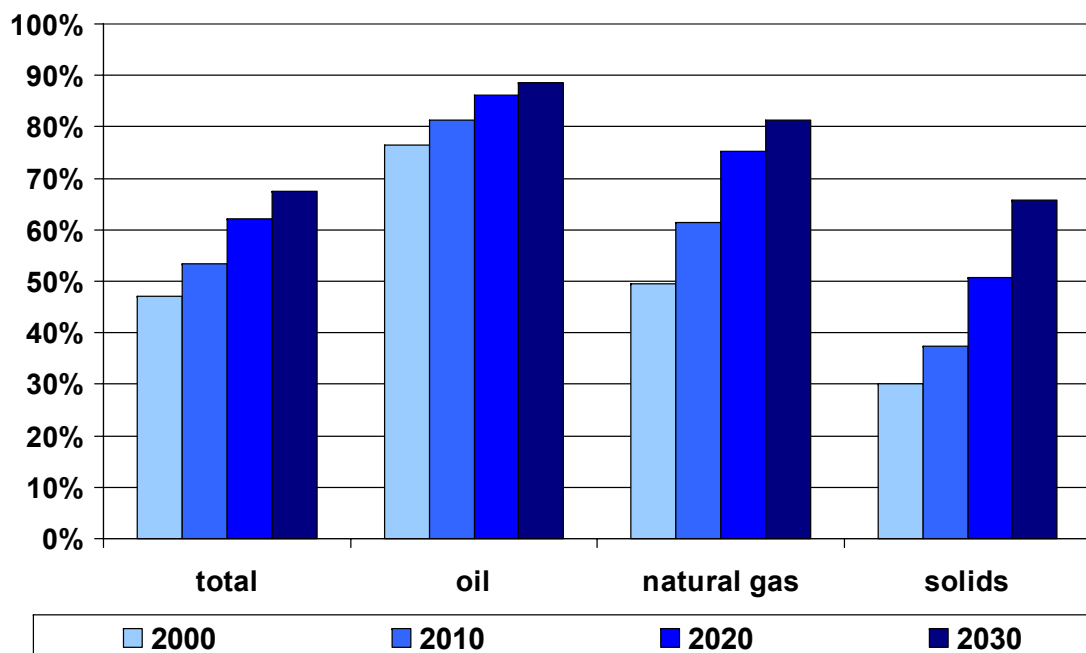
**Unit D4 - Energy Efficiency, DG TREN**

**Energy Efficiency in Housing**

**Brussels 9/12/2008**

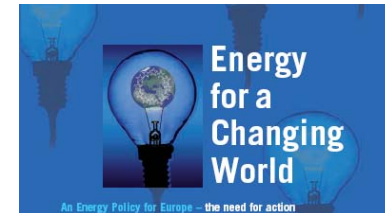
# ● Political and Economical Motivation

- **Environment:** Climate change: up to +6.4°C in 2100 (IPCC)
- **Financial and Economic Crisis:** EC's Economic Recovery Plan
- **Social & Economic:** Recent energy prices and their volatility
- **Security & Economy:** EU Energy Import Dependency - Forecast:



# ● Political and Economical Motivation

→ EU's integrated Package 'Energy Policy for Europe' of March 2007:  
20 % Greenhouse Gas reduction  
20 % Energy savings  
20 % Share of renewables  
by 2020 (base year: 1990)



Energy is a vital part of our daily lives in Europe and we have come to rely on it. But the days of secure, cheap energy are over and we are already facing the consequences of climate change, increasing import dependence and higher energy prices. In order to ensure a sustainable, secure and competitive energy supply a common European response is needed. A new European Energy Policy must be ambitious, effective and long-lasting – and involve everyone.

**Ensuring security of supply**  
Energy, volatile prices, shortages and difficulties in supply have all illustrated the risks of being overly dependent on oil and gas. With global need on the up, this pattern is set to continue. The International Energy Agency expects worldwide demand for oil alone to increase by well over a third by 2030 – so how will this be met?

**Tackling climate change**  
Energy is the main factor in climate change, accounting for some 80% of EU's greenhouse gas emissions. It has been estimated that, without real efforts to reduce emissions, there is a real chance that global temperatures will rise by several degrees, dramatically altering the world's landscape and the way we live.

**There is also a need to increase capacity.** Electricity demand continues to mount by around 1.5% each year, but existing infrastructure and electricity plants are reaching the end of their useful life.

Over the next 25 years, around 4000 billion will be needed to invest in new coal- and gas-fired power plants, along with wind turbines. Even if we increase our energy efficiency to limit growth in demand, major investment in infrastructure is vital.



# ● Role of the Buildings Sector

- 40 % of EU's energy is used in the residential/tertiary sectors
- 36 % of EU's CO<sub>2</sub> emissions are caused by the buildings sector
- Cost-effective energy savings potential in the building sector:  
28 % by 2020
- Key EU legislation:  
**Energy Performance of Buildings Directive**



# ● Energy Performance of Buildings Directive – EPBD (2002/91/EC)

## Requirements:

- An integrated methodology to rate the energy performance of buildings
- Minimum energy performance standards for new and for existing buildings that undergo major renovation
- Energy performance certificates for buildings
- Regular inspections of heating and air-conditioning systems



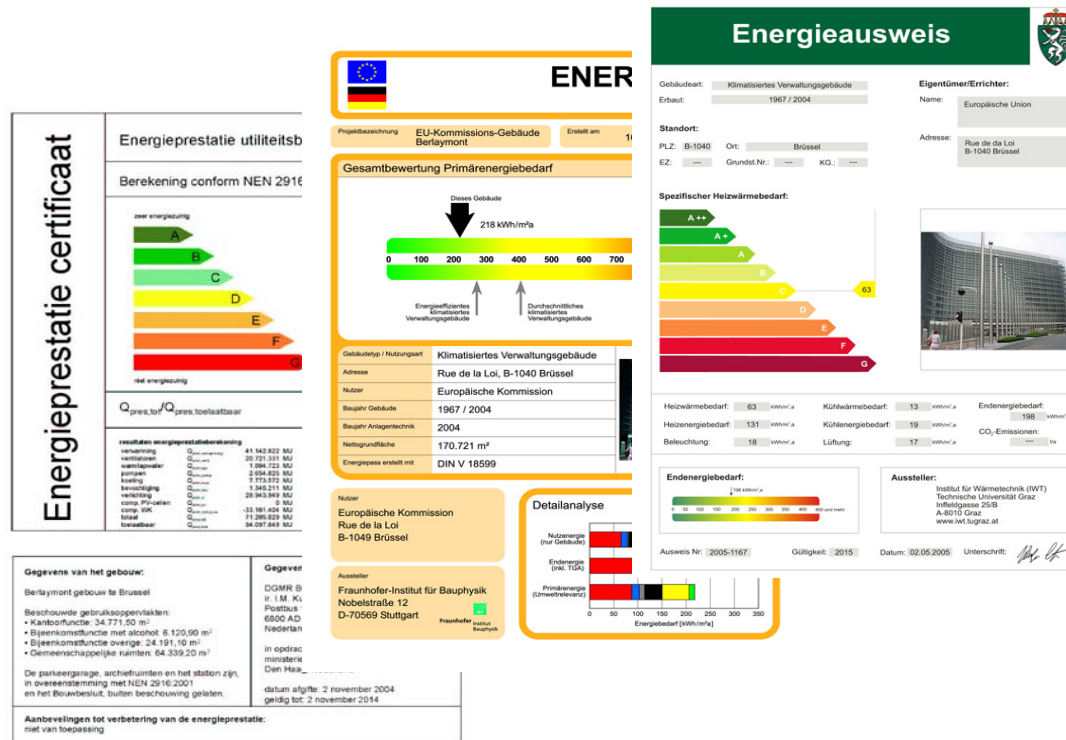
# ● EPBD recast – What are the changes?

- Principles of existing EPBD requirements are **KEPT** – but **CLARIFIED** and **IMPROVED** in their effectiveness
- Several ways of implementing details of the EPBD by Member States exist **AND SHALL BE UPHOLD** – full respect of subsidiarity principle and of economic feasibility



# Energy Performance of Buildings Directive - recast

Example for MSs' room for maneuver to implement EPBD:



# ● Energy Performance of Buildings Directive – recast(1)

- Elimination of the 1000 m<sup>2</sup> threshold for existing buildings when they undergo a major renovation  
Eliminating/lowering of the threshold also for
  - Display of Energy Performance Certificates in public buildings
  - Assessment on installation of alternative systems for new build
- Minimum energy performance requirements for new buildings and major renovations:  
Benchmarking to achieve cost-optimal levels



# ● Energy Performance of Buildings Directive – recast(2)

- Strengthening the role and the quality of energy performance certificates – i.a. quality checks and use of the performance indicator in advertisements for sale or rent
- Strengthening the role and the quality of inspections (HVAC)
- Addressing the public sector to act as leading example
- Stimulating the market entry of low/zero carbon and energy buildings, such as passive houses
- Clarification/simplification of provisions and definitions



# ● EPBD recast – What shall happen?

## Energy Performance Certificate



A screenshot of a Windows Internet Explorer browser window displaying a real estate website. The browser title is "A vendre - Recherche - Appartements - D - Windows Internet Explorer". The address bar shows the URL: <http://www.immoweb.be/fr/buy.Results.gallery.cfm?xmi=&ockeep=&ccarte=N&idcategorieprev=5&idcategorie=5&idtypek>. The page content includes a sidebar with navigation links and a main grid of apartment listings.

**Immobili r   vendre**

- Rechercher un bien
- Top 500
- Nouveaux biens
- Ventes publiques
- Rech.sp cifiques
- Terrains   b tir

**Dossiers**

- Mieux acheter & louer
- Emprunts
- Co ts & subsides
- Taxes & fiscalit 
- Contrats-type
- Assurances
- Energie
- D m nagement
- Urbanisme
- B t & r nov r
- D couverte
- Tuyaux

**Trouver**

- Agence immobili re
- Notaires
- Experts
- Promoteurs
- Entrepreneurs
- Partenaires
- F d.professionnelles

**Mes recherches**

**Energy Class D**

The screenshot also shows a list of apartment listings with details such as location, number of bedrooms, and price. A large black oval highlights the text "Energy Class D" in the center of the page.

- **Impact and support instruments of the EPBD recast**
  - **5 - 6 % saving of EU's total energy consumption**
  - **5 % saving of EU's total CO<sub>2</sub> emissions**
  - **280,000 – 450,000 potential new jobs**
  - **Low/zero, predominantly negative CO<sub>2</sub> abatement costs**
  - **Support to pave the way for recast's implementation:**
    - (1) Intelligent Energy Europe Programme (SAVE)**
    - (2) European Commission's Buildings Platform – key element of Commission's "Build-up Initiative" (2009)**
    - (3) EC's Economic Recovery Plan**





7 litres of oil or cubic metres of gas consumption per square metre and year, so 25 litres of oil or cubic metres of gas consumption per square metre and year, so about 15 € annual energy bill per square metre (total 4500 €) energy bill costs annually cut by two third! 12/12