

Intelligent Energy



Europe

THE EUROPEAN DIRECTIVES FOR BUILDINGS AND ENERGY SERVICES



Paula CADIMA
Project Officer

Intelligent Energy Executive Agency (IEEA)
European Commission

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PRESENTATION'S STRUCTURE

- EU context and EC priorities
- Green Papers on Energy Efficiency
- Action Plan for Energy Efficiency
- Community Support Programmes
- EU Directives on Energy Savings

- The consumption of energy in Europe is substantial, while the demand growth of transport and electricity represent the most worrying trend.
- Buildings alone uses 40% of the energy consumed in the European Union. Too much energy continues to be wasted in buildings because of inefficient heating and cooling systems and lighting.
- The demand for electricity also experienced considerable growth in recent years. 2/3 of the primary energy needed to generate electricity is lost in production, transmission and distribution.
- There is a relevant energy savings potential in the end-use sectors



Key EC energy priorities



M. Piebalgs, Commissioner for Energy

- Increasing energy savings has moved up in the agenda of the new Commission headed by José Manuel Barroso;
- It has been identified as the chief political objective of Energy Commissioner Andris Piebalgs, who launched a wide-ranging policy debate on energy efficiency in Jun. 2005;
- Achieving a properly functioning internal market for gas and electricity for the benefit of all our citizens;
- Promoting renewable energy;
- Strengthening nuclear safety and security;
- Security of Europe's energy supplies and further developing external energy policy relations;
- Improving the links between energy policies and environmental and research policies.

CALL FOR MORE ENERGY EFFICIENCY

- **Green paper “Doing more with less”** issued July 2005
 - ▶ Prioritise energy efficiency with goal of overall saving 20% of energy by 2020 via concrete measure
- The European Commission has published in Mar. 2006 the **Green Paper** on a “**European Strategy for Sustainable, Competitive and Secure Energy**”
 - ▶ Help the EU lay the foundations for security of supply, competitiveness and environmental sustainability
- **Action plan on Energy Efficiency**, including actions in buildings was recently published



ACTION PLAN FOR ENERGY EFFICIENCY

- Overall objective: to outline a coherent framework of policies and measures with a view to saving a substantial part of the 20% of EU annual primary energy consumption by 2020. It proposes a selection of cost-effective energy efficiency improvement initiatives to be put in place and implemented in the coming six years. The ambition is to mobilise market actors and to transform the internal energy market, with the objective of providing EU citizens with the **globally most energy-efficient buildings, appliances, processes, cars and energy systems.**
- Improve the EU's competitiveness, the living standards of its citizens, boost employment and increase exports of new, energy-efficient technology
- The building sector offers a great saving potential (Residential and Tertiary = 57% by 2020)
- On an individual level, small changes in our energy consumption patterns will mean saving money, helping the environment and doing our bit for a common European goal.
- The time to start is now!

■ Framework Programme for Research, Technology Development and Demonstration

- ▶ FP6 (2002-2006)
- ▶ FP7 (2007-2013) EUR 50 521 million



■ Intelligent Energy Europe Programme

- ▶ Complementary to R&D projects
- ▶ Aims to overcome legal, economic, cultural, social and administrative barriers.
- ▶ IEE 2003-2006



- The Commission has proposed an ambitious Intelligent Energy - Europe II programme, which will form part of the new 'Competitiveness and Innovation' Programme 2007-13



- The priorities for the start of IEE II (total budget: €730 million) will be defined in the annual programme 2007

WHAT IS the IEE-Programme and the IEAA ?

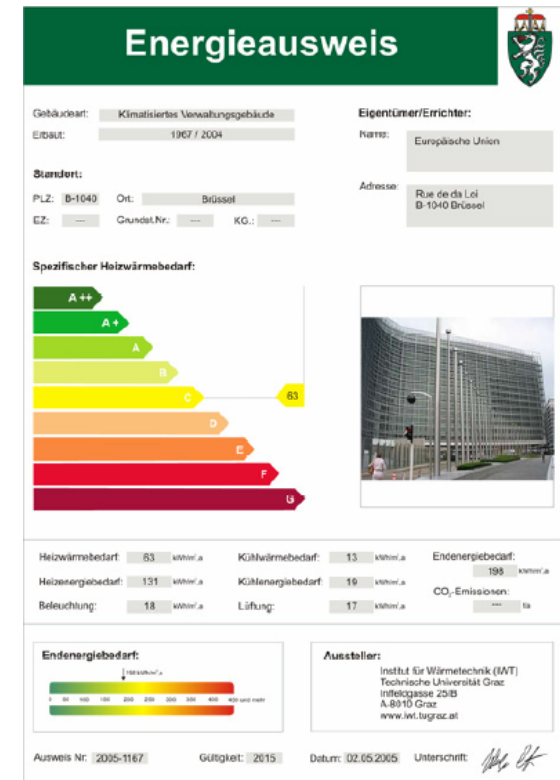
- IEE is an EU support programme promoting increased **energy efficiency** and the use of **renewable energy sources** by overcoming the non-technological barriers (legal, financial, institutional, cultural, social barriers)
- IEE is implemented by the IEAA, the first of a number of new Executive Agencies created by the European Commission to put policies into action more efficiently and with improved results



European legislation on energy savings

- **Directive on energy performance of buildings**
- Directive on the promotion of cogeneration
- Directive for the taxation of energy products & electricity
- Renewable Electricity Directive
- Biofuels Directive
- CPH Directive
- Directives on energy efficiency requirements for boilers, refrigerators and ballasts for fluorescent lighting
- Directives for labelling of electric ovens, air-conditioners and refrigerators and other appliances
- Regulation on Energy Star labelling for office equipment
- Directive on Eco-design requirements for energy using products
- **Directive on energy end-use efficiency and energy services**

- Calculation of the integrated energy performance with a methodology at national or regional level under a common framework
- Minimum requirements on the energy performance of new buildings and large refurbishments
- Energy certification of buildings making energy consumption visible to owners, tenants and users
- Inspection of boilers and air-conditioning systems
- Independent experts for assessment and inspection



Example:
Certificate of the main Commission
Building “BERLAYMONT”

ENERGY END-USE EFFICIENCY AND ENERGY SERVICES DIRECTIVE

- The Directive will require Member States to save at least an additional 1% of their final energy consumption each year for the next 9 years (retail, supply and distribution of electricity, natural gas, urban heating, and other energy products including transport fuels).
- => Member States must adopt targets, impose obligations on their energy suppliers and prepare national Energy Efficiency Action Plans.
- Savings will be achieved in both the private and public sectors, using a framework of measures to:
 - ▶ expand the use of energy services,
 - ▶ improve the market uptake of energy-efficient technology
 - ▶ and integrate energy efficiency criteria into public procurement practices.

Thank you for your attention!

paula.cadima@ec.europa.eu

**More Information on
<http://ec.europa.eu/comm/energy/intelligent/index.en.html>**