



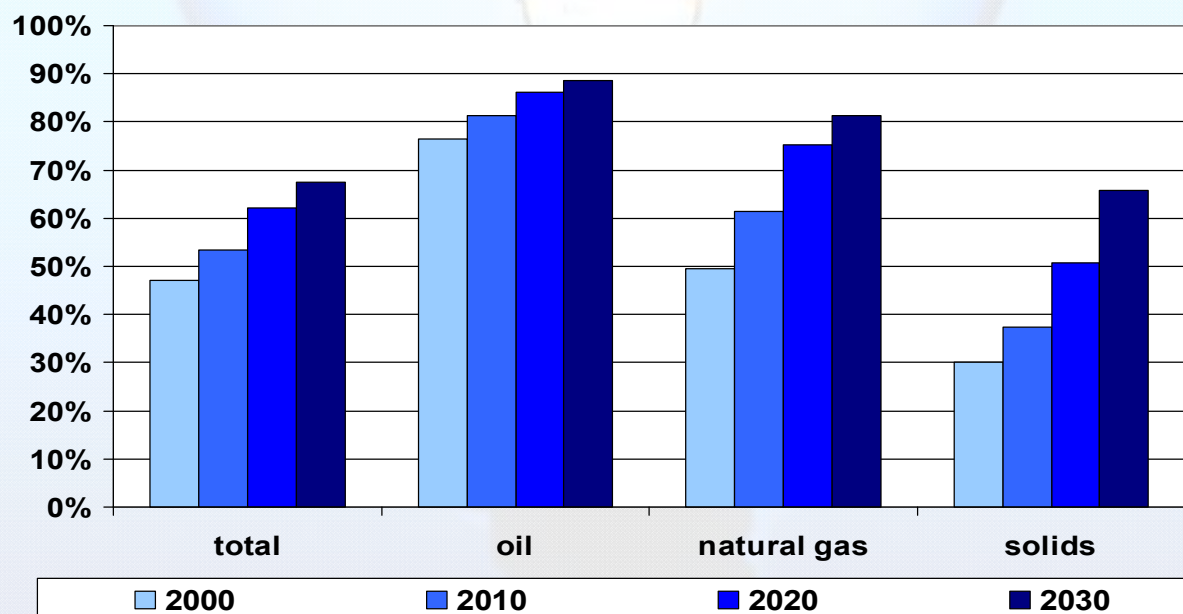
Energy Efficiency in Buildings: Regulatory and Non-regulatory EU Instruments

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Background

- **Climate change: +0.7°C at present, up to +6.4°C in 2100 (IPCC)**
- **Oil and gas price: increased by factor 6 within 8 years**
- **EU Energy Import Dependency - Forecast:**





Background

Impact of European action on the energy use in buildings:

- **40% of energy is used in the residential/tertiary sectors**
- **Energy savings potential in the building sector: 26 % by 2020**
- **Improving energy efficiency of buildings is No. 2 on the "indicative list of actions" of the Energy Policy for Europe of the European Council**
- **Initiatives on the energy performance of buildings is No. 2 on the "priority list of actions" of the Energy Efficiency Action Plan of the European Commission published in October 2006**



Background

→ Integrated Package on Energy and Climate Change of the European Union of March 2007:

20 % CO₂ reduction

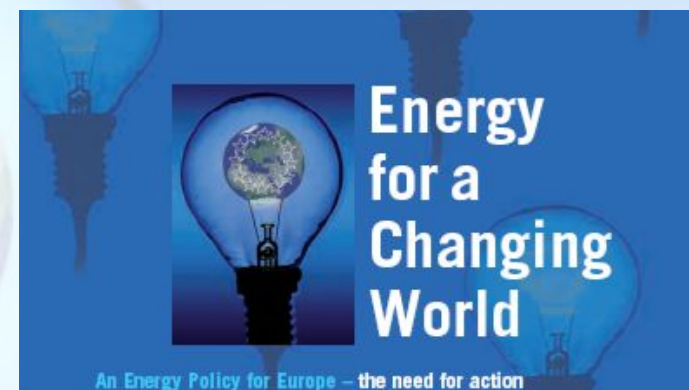
20 % Energy efficiency improvement

20 % Share of renewables

by 2020 (base year: 1990)

Key element:

Energy Efficiency Action Plan



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.

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.

The EU is committed to reducing greenhouse gas emissions, but its present energy practice will result in increasing them by 5% by 2030. The EU's current energy and transport policies are not sustainable. Acting now to tackle climate change is essential.

Ensuring security of supply
Rising, volatile prices, blackouts 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?

If energy trends and policies remain as they are, the EU's reliance on imports will jump from half to almost two-thirds in 2030. 84% of gas would have to be imported, as would 93% of oil. But from where and how these supplies would come is unclear. Add to this the fact that several EU Member States are essentially dependent on one single gas supplier and factor in the lack of a crisis support structure between countries, the EU's growing vulnerability is evident.

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 €900 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.



Energy Efficient Buildings - EU Instruments -



Initial point: Energy Performance of Buildings Directive

- Requiring an integrated methodology to rate the energy performance of a building
- Requiring minimum energy performance limits for new and refurbished existing buildings
- Requiring an energy performance certificate for buildings
- Requiring regular inspections of boilers and air-conditioning systems



Energy Efficient Buildings - EU Instruments -



Energy Performance of Buildings Directive – MS Support

- Initiation and funding of an integrated package of CEN standards
- Initiation and funding of a Concerted Action for Member States
- Providing all-embracing information and assistance by the Commission's Buildings Platform (& conferences)
- Research and demonstration projects under the 6th and 7th Framework Program and the Intelligent Energy Europe Program



Energy Efficient Buildings - EU Instruments -



Address: <http://www.buildingsplatform.org/cms/>

EUROPEAN COMMISSION
 Directorate-General for Energy and Transport
 Your complete resource for information on the Energy Performance of Buildings Directive

EPBD BUILDINGS PLATFORM

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EPBD Buildings Platform: your information resource on the Energy Performance of Buildings Directive

The EPBD Buildings Platform is a European Commission framework of the Intelligent Energy - Europe (2001) which provides information services for practitioners, experts in energy agencies, interest groups and national authorities in the European Member States for helping the implementation of the **European Energy Performance of Buildings Directive**.

To help you navigate to the topics the most related information is classified by:

- the 5 main Directive's themes
 - Certificates
 - Inspection
 - Experts
 - Ca
- the Platform's tools and services

The EPBD Buildings Platform collaborates with key Community initiatives like ManagEnergy, the EU Sustainable Energy Campaign and other key European actions and

← Buildings Platform

Address: http://ec.europa.eu/energy/intelligent/projects/buildings_en.htm

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Intelligent Energy Europe

back to all projects

Fact sheet | Slides | Poster | Website | (2005) Call year

Energy Efficiency projects - Buildings

- Projects currently under negotiation
- Compilation of all projects until 2006
- AUDITAC**
Field benchmarking and Market development for Audit methods in Air Conditioning (2004)
- BUDI**
Pilot actions to develop a functioning market for energy performance certificates (2004)
- Building EQ**
Tools and methods for linking EPDB and continuous commissioning (2006)
- COOLREGION**
Energy efficient Cooling in regions of North and
- BESTFACADE**
Best Practice For Double Skin Facades (2004)
- Building AdVent**
Building Advanced Ventilation Technological examples to demonstrate materialised energy savings for acceptable indoor air quality and thermal comfort in different European climatic regions (2006)
- CHECK IT OUT!**
Check and Improve the Energy Performance of Schools and Disseminate best Practices (2006)
- DATAMINE**
Collecting DATA from energy certification to Monitor performance Indicators for New and Existing

Done | Local intranet

Intelligent Energy Europe Projects →



Energy Efficient Buildings - EU Instruments -



Energy Performance of Buildings Directive: Accompanying Measures

- Supporting finance initiatives for energy efficient buildings – Regional Funds, EBRD, EIB, KfW...
- Directive on energy end-use efficiency and energy services – Request for National Energy Efficiency Action Plans
- Forthcoming EcoDesign Directives (boilers, AC-systems)



Energy Efficient Buildings - EU Instruments -



Energy Performance of Buildings Directive: Outlook

- Intensive assessment of the implementation in the Member States will be continued – first case brought to Court
- Revision of the Directive: extension of the scope, strengthening of requirements, eliminating barriers
- Continuation of support initiatives – Concerted Action II, CEN standards, Buildings Platform phase II, R&D projects 2007 - 2013



Further Information



Information on the Integrated Package on Energy and Climate Change:

http://ec.europa.eu/energy/energy_policy/index_en.htm

News/Initiatives from Directorate-General for Energy and Transport:

http://ec.europa.eu/dgs/energy_transport/index_en.html

Commission's Buildings Platform:

<http://www.buildingsplatform.org>



Further Information

Stabilization is possible at limited costs – markets can supply

