



## **Energy Policy for Europe Action Plan 2007-2009**

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**New and renewable sources of energy,  
energy efficiency and innovation**

**Euroheat & Power, Brussels  
07 February 2008**

Directorate-General  
for Energy  
and Transport



EUROPEAN  
COMMISSION

# ENERGY FOR A CHANGING WORLD

**GREEN PAPER  
ENERGY**

**LIMITING CLIMATE CHANGE TO 2° C**  
**ENERGY POLICY FOR EUROPE**

**ACTION PLAN  
2007-2009**

**SPRING EUROPEAN COUNCIL 2006**

**ENERGY PACKAGE  
2007**

**SPRING EUROPEAN COUNCIL 2007**

**SUSTAINABILITY AND LOW-CARBON ECONOMY**

**INTERNAL MARKET**

**EXTERNAL RELATIONS**

RENEWABLE ENERGY  
ROAD MAP

SUSTAINABLE FOSSIL  
FUEL TECHNOLOGIES

DG COMP  
SECTOR INQUIRY

JOINT COMMISSION/ HR /  
COUNCIL JUNE 2006 PAPER  
AND COM PAPER OCT 2006

PROGRESS REPORT  
BIOFUELS

ILLUSTRATIVE  
NUCLEAR  
PROGRAMME (PINC)

REPORT ON  
FUNCTIONING OF  
INTERNAL MARKET

NEGOTIATION MANDATE  
FOR NEW AGREEMENT WITH  
RUSSIA

PROGRESS REPORT  
RES ELECTRICITY

PRIORITY  
INTERCONNECTION  
PLAN

DIALOGUE WITH  
PRODUCERS:  
OPEC-NORWAY-GCC-  
ALGERIA-CASPIAN BASIN  
(BAKU PROCESS)

ENERGY EFFICIENCY  
ACTION PLAN  
(19 OCT 2006)

DIALOGUE WITH  
CONSUMERS:  
CHINA, US, INDIA, JAPAN

Directorate-General  
for Energy  
and Transport

**R&D 7<sup>TH</sup> FRAMEWORK PROGRAMME**

**STRATEGIC ENERGY TECHNOLOGY PLAN (end 2007)**



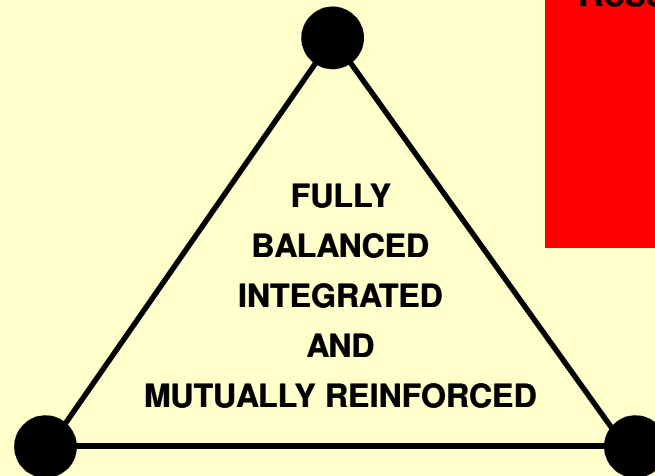
# *Role of the EU in our Energy Future*

- *Consensus at EU level for stronger EU role*
- *An EU policy giving added value to national policies*
- *Decision of the European Council on 8/9 March 2007*

# I. THE THREE CHALLENGES

## Competitiveness “LISBON”

- Internal Market
- Interconnections (Trans-European networks)
- European electricity and gas network
- Research and innovation
  - Clean coal
  - Carbon sequestration
  - Alternative fuels
  - Energy efficiency
  - Nuclear



## Sustainable Development “KYOTO”

- Renewable energy
- Energy efficiency
- Nuclear
- Research and innovation
- Emission trading

## Security of supply „MOSCOW“

- International Dialogue
- European stock management (oil/gas)
- Refining capacity and energy storage
- Diversification



# THE KEY DRIVERS

3x20% by 2020

**20% by 2020  
EFFICIENCY**

**By 2020 20% EU GHG**

**By 2020 20% RENEWABLES  
BINDING**

**BIO-FUELS**

**10 % 2020  
binding**

**E-ELECTRICITY**

**HEATING & COOLING**

**NATIONAL TARGETS and ACTION PLANS**



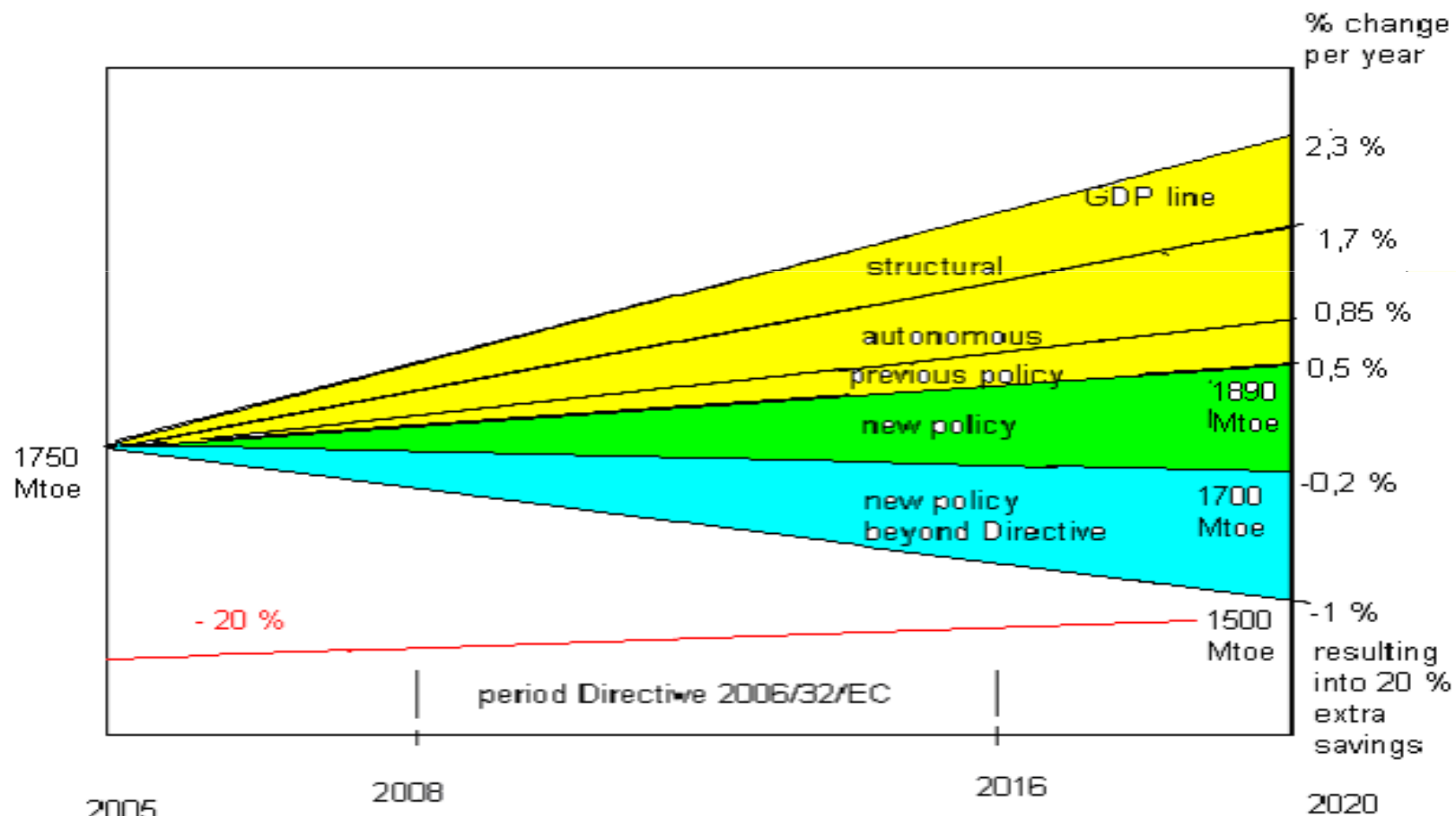
### 3. ENERGY EFFICIENCY

## Saving 20% energy by 2020

- **Energy Efficiency Action Plan - adopted on 19 October 2006**
- Realising the Potential:
  - Transport - fuel efficient cars; better use of public transport; introduction of biofuels
  - Appliances - tougher standards and better labelling
  - Buildings - improving the energy performance of the EU's building stock
  - Improving the en. efficiency of heat and electricity generation(CHP), transmission and distribution

# Overview of 20% goal

Realising the Potential

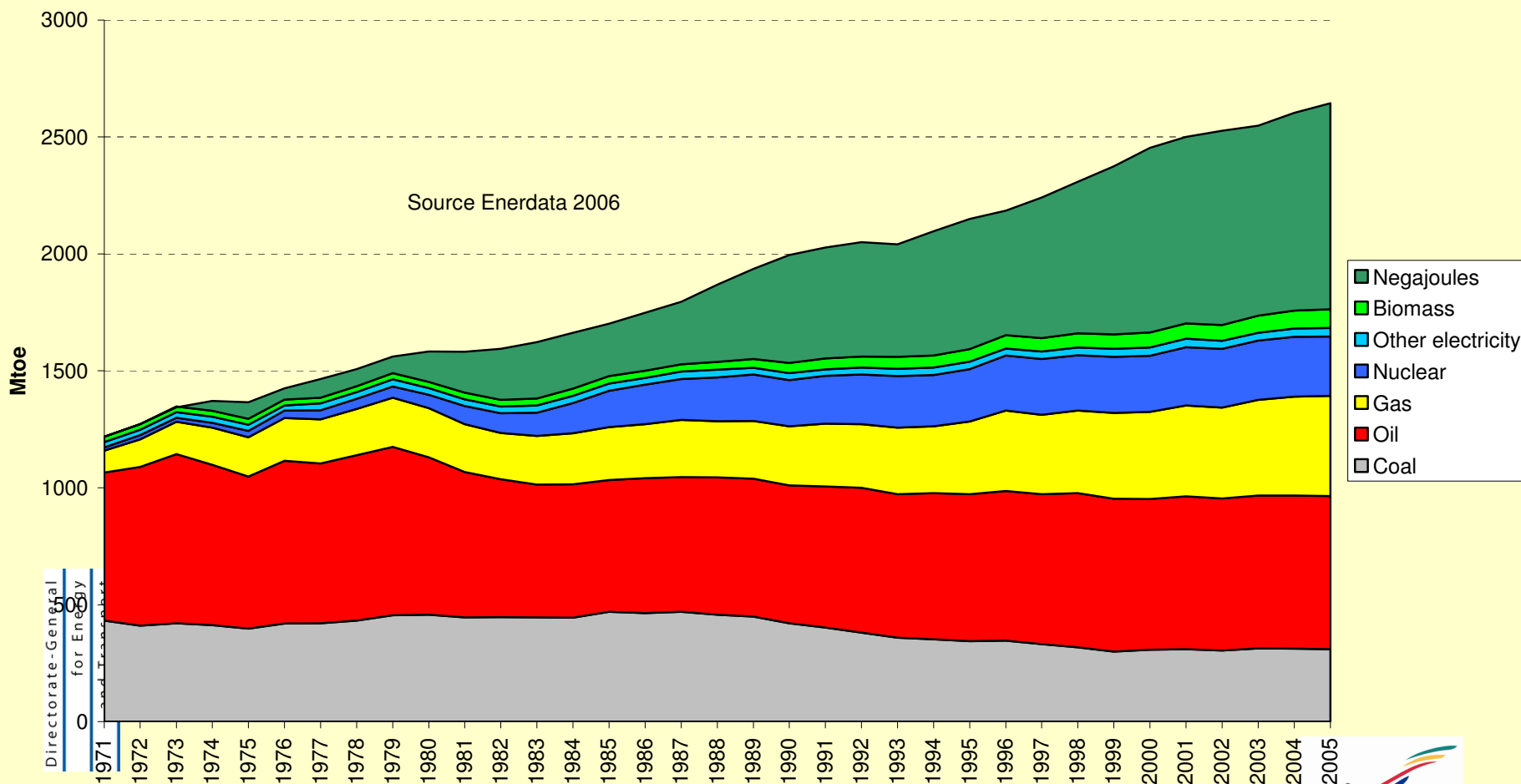


- Directorate-General for Energy and Transport



# Action Plan: savings potential

## Development of the primary energy demand and of « negajoules »



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## Action Plan: the savings potential

**Target Energy Saving Potential: 20% by 2020**

**Energy efficiency potential in different sectors<sup>1</sup>:**

- **Manufacturing industry: up to 27%**
- **Transport: up to 30%**
- **Commercial buildings: up to 26%**
- **Households: up to 25%**

<sup>1</sup> Wuppertal Institute 2005.



# III. Benefits

- ✓ **Increase in Energy Efficiency „20% by 2020“**
  - ✓ **EE Action Plan : Save more than €100 billion and around 780 Mt CO<sub>2</sub>/year – 1/5 of today's emissions**
- ✓ **Technical progress**
  - ✓ Efficiency gains
  - ✓ Sustainable fuel mix and more renewables
- ✓ **Internal Market**
  - ✓ Efficiency gains and competitive price
  - ✓ Downward pressure on costs for downstream industries and consumers
  - ✓ Enhanced solidarity between Member States
  - ✓ Credibility of speaking with « one voice »
- ✓ **Broader and wider Emission Trading Scheme**
  - ✓ Reduction of abatement costs for regulated industries and sectors
  - ✓ Stimulation of growth and job creation and innovation

## Action Plan: the strategy

- mobilising the general public, policy-makers at all levels of governments and market actors
- to transform the internal energy market to provide EU citizens with the globally most energy-efficient infrastructure, buildings, appliances, processes, transport means and energy systems



- **Important European legislation on energy efficiency**
- **Directive on energy performance on buildings**
- **Directive on the promotion of cogeneration**
- Directive on the taxation of energy products
- 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**
- Integrated Pollution Prevention and Control Directive
- Large Combustion Directives
- Emission Trading Directive
- Car labelling directive
- Construction Products Directive
- Internal Market Directives

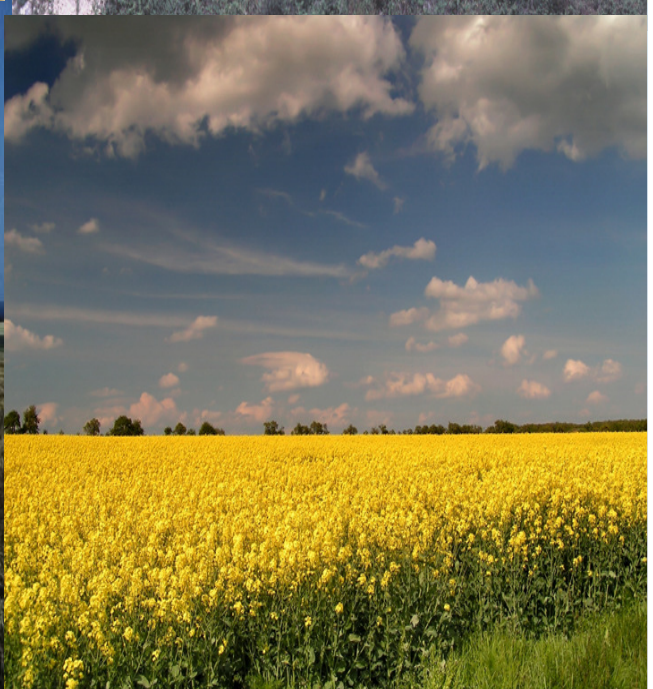


# The Energy Services Directive

## *Purpose and objectives*

- Enhance cost-effective improvement of energy end-use efficiency in Member States through
  - providing necessary indicative targets, mechanisms, incentives and institutional, and legal frameworks to remove market barriers and imperfections impeding efficient end use of energy
  - creating conditions for development and promotion of a market for energy services and for delivery of other energy efficiency improvement measures to final consumers
- To realise the potential and contribute to security of energy supply, competitiveness and sustainable development

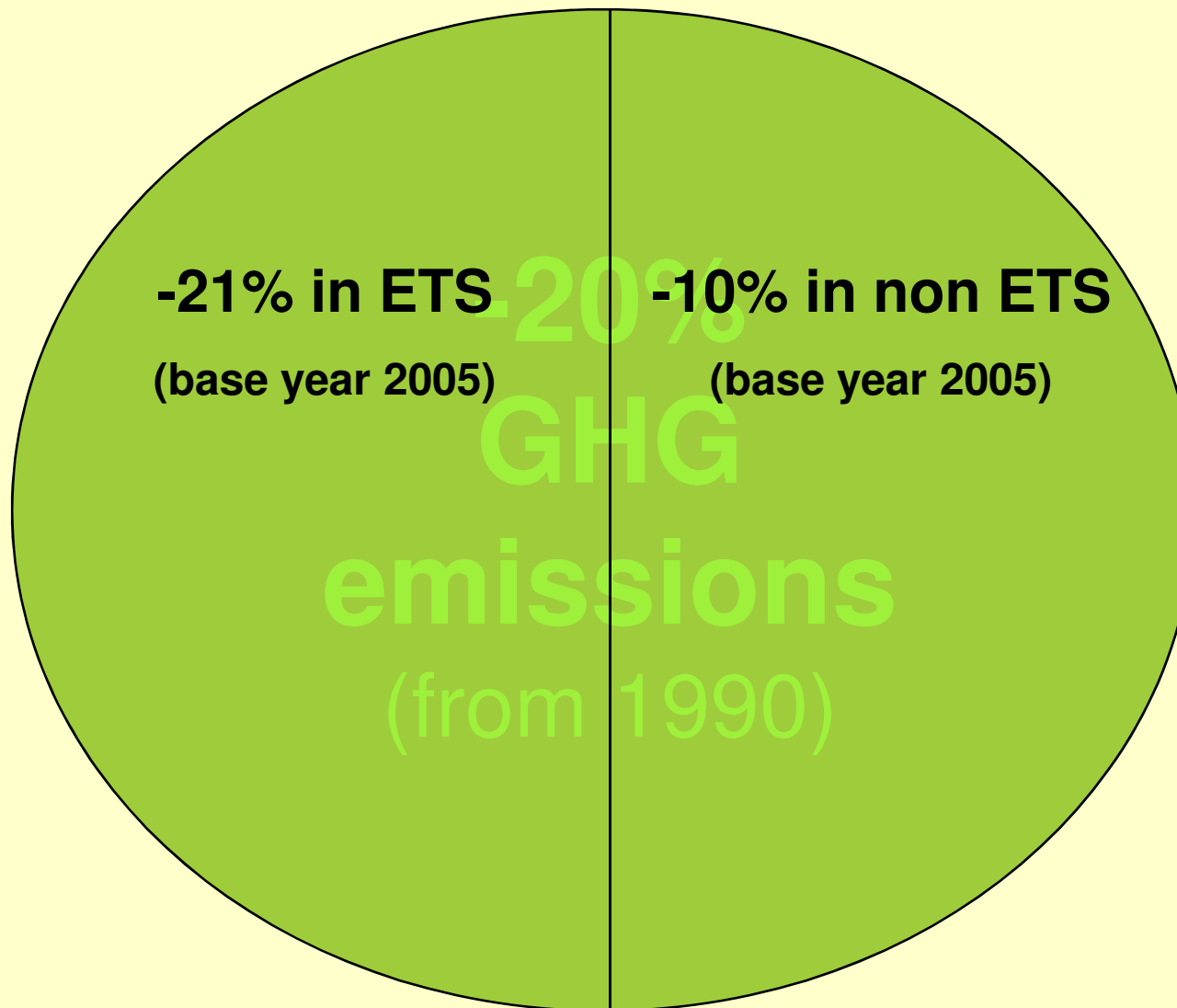




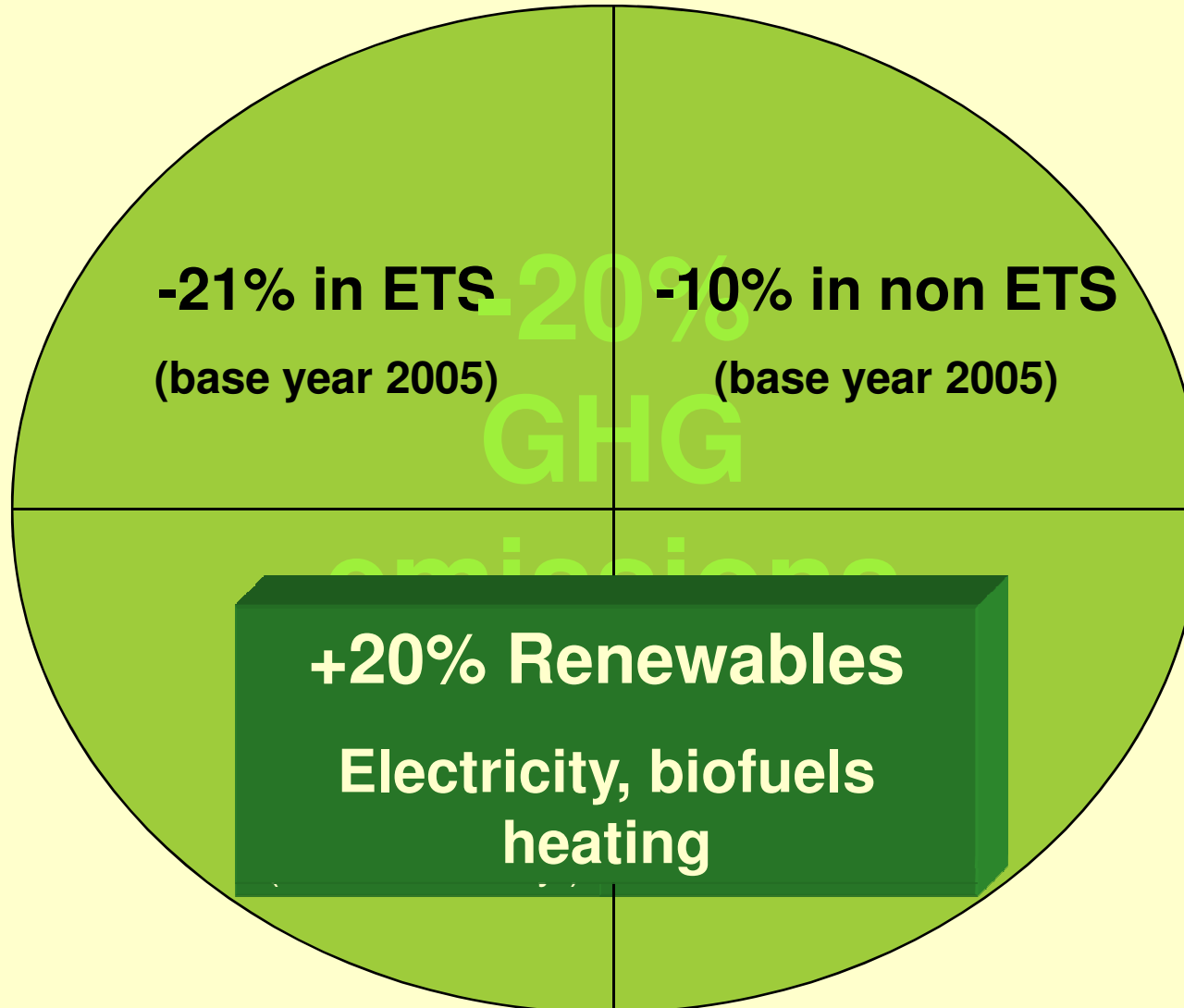
# The context

**-20%**  
**GHG**  
**emissions**  
(from 1990)

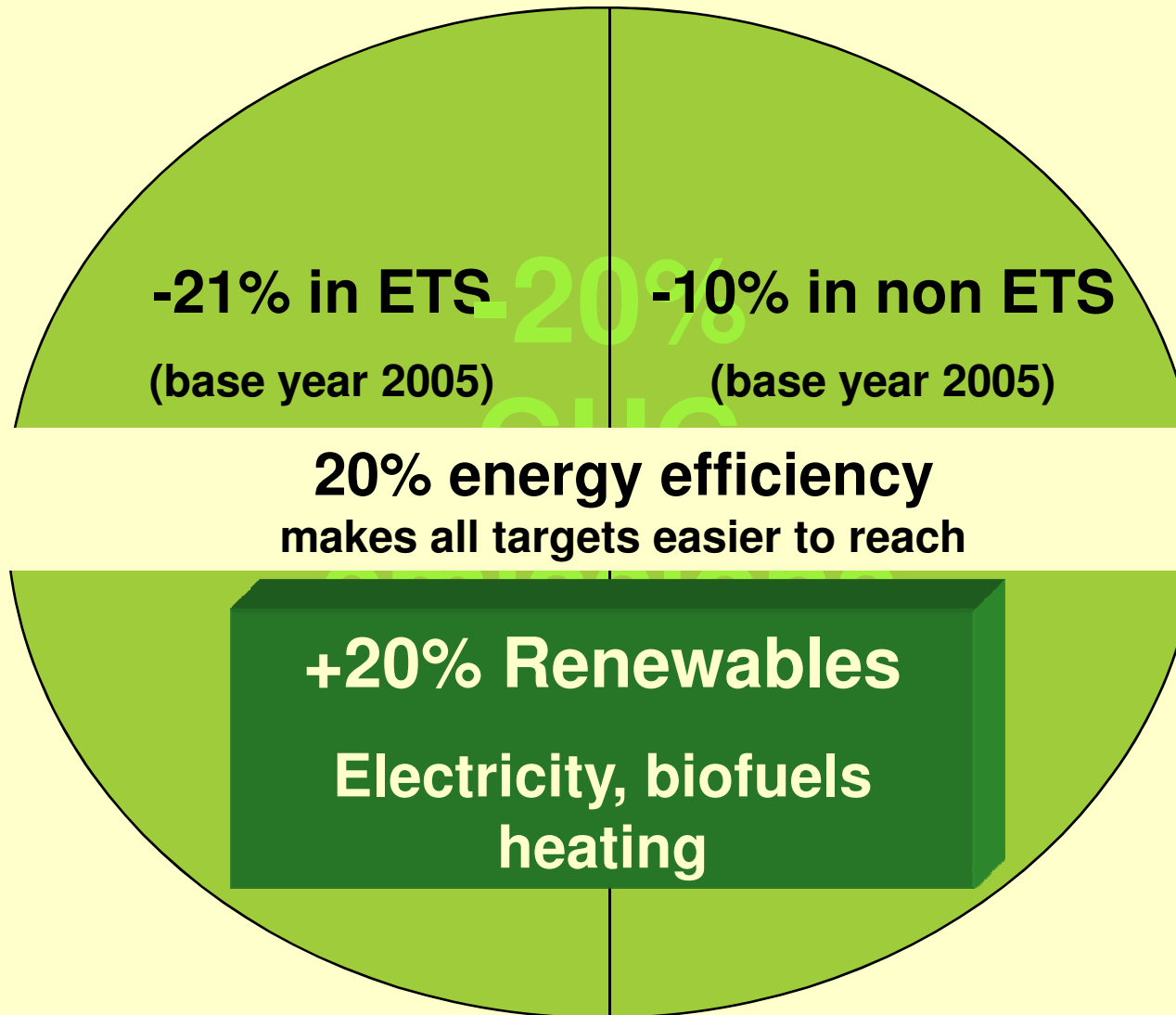
# The context



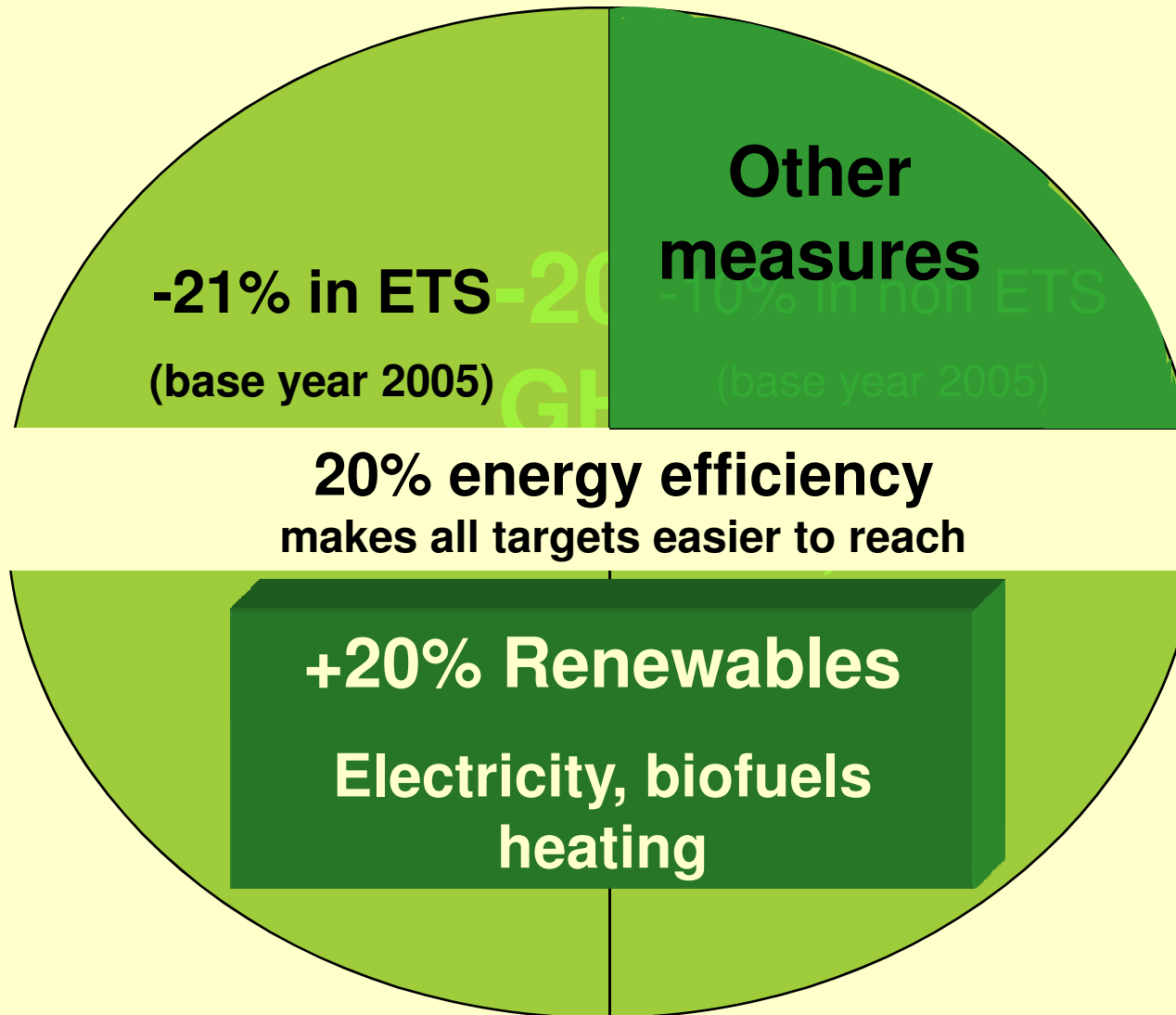
# The context



# The context



# The context



# The renewables Directive

1. **Sets mandatory national targets for renewable energy shares, including 10% biofuels share, in 2020** (*Articles 3 and 5*)
2. **Requires national action plans** (*Article 4*)
3. **Standardises “guarantees of origin” (certifying the renewable origin of electricity or heat) and enables the transfer of these to provide flexibility to Member States** (*Articles 6, 7, 8, 9 and 10*)
4. **Requires reduction of administrative and regulatory barriers to the growth of renewable energy** (*Article 12*), **improvements in provision of information and training** (*Article 13*) and **improves renewables’ access to the electricity grid** (*Article 14*)
5. **Creates a sustainability regime for biofuels** (*Articles 15-18*)

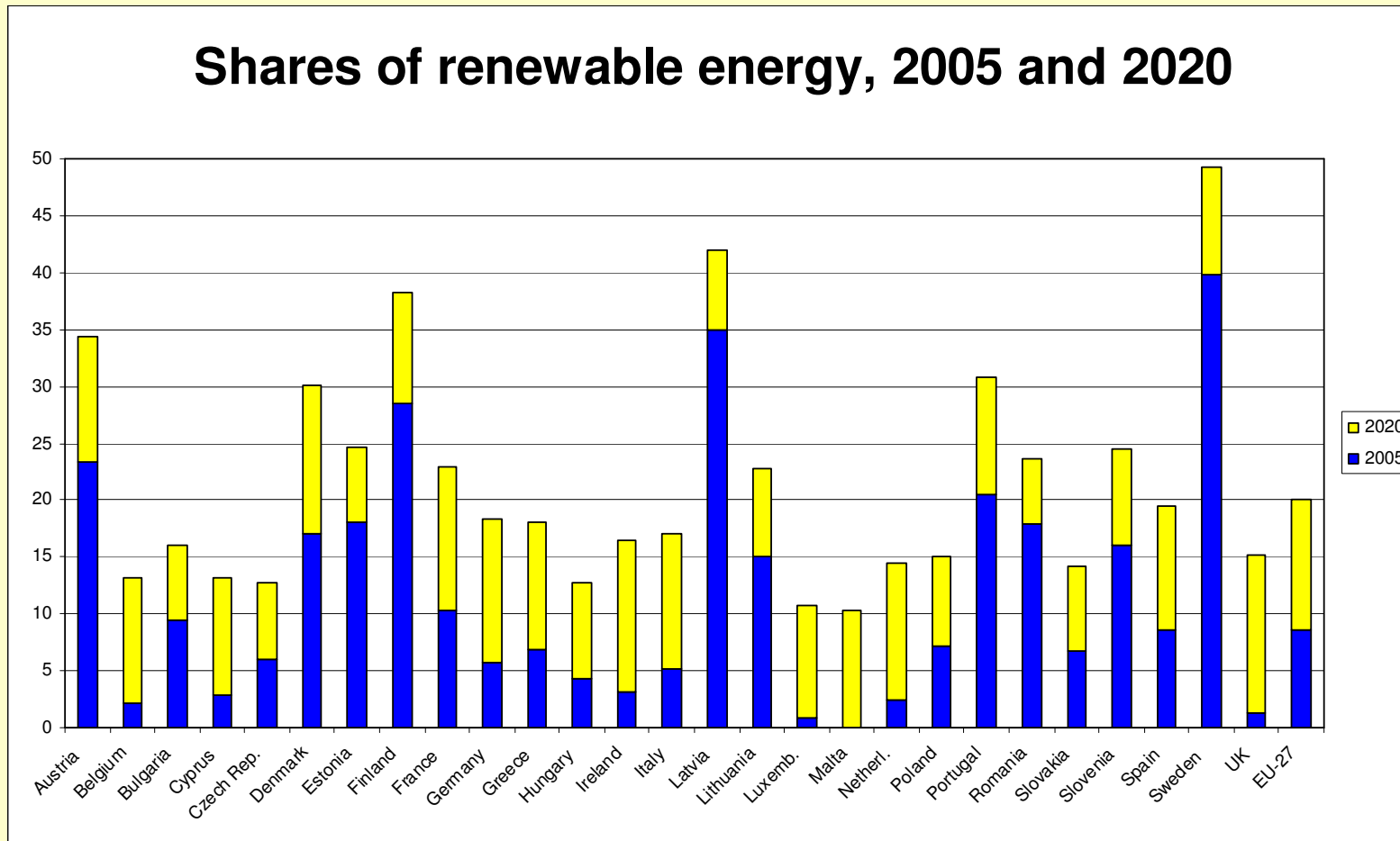
# Target setting methodology

## Sharing the 11.5% increase between Member States:

- 1. 2005 is the base year for the whole energy package**
  - 2005 share is modulated to reflect national starting points: a third of national growth between 2001 and 2005 is deducted from the 2005 actual share for those Member States whose growth over the period exceeded 2%
- 2. 5.5% is added to the modulated 2005 share of renewable energy for every Member State**
- 3. The remaining effort is weighted by a GDP/capita index, to reflect different levels of wealth across Member States, and multiplied by each Member State's population**
- 4. These two elements are added together to derive the full renewable energy share of total final energy consumption in 2020.**
- 5. A cap is imposed to ensure that no Member State faces a target of 50% or more.**

# National renewables targets

Shares of renewable energy, 2005 and 2020



# ● National action plans

- National action plans
  - Sectoral targets now set by Member States
  - Measures adequate to achieve the targets including planned development of biomass resources
  - Provides policy stability for investment



# Guarantees of origin

## The proposed flexibility mechanism:

- Builds on the framework created by 2001/77/EC
- Member States meeting their trajectory may transfer extra GOs to other Member States
- GOs from new installations may be transferred by companies (“persons”)
- Member States may create a system to require prior government approval of such transfers.

# ● Administrative reforms

**Reforms, or requires reforms of administrative and regulatory barriers to the growth of renewable energy:**

- simplification and streamlined procedures
- planning authorities to consider renewable energy and district heating and cooling systems
- minimum levels of renewable energy in building codes for new or refurbished buildings
- promotion of energy efficient renewable energy
- certification regimes for installers; mutual recognition

# ● Grid access

## **Improves renewables' access to the electricity grid**

- Builds on existing access conditions in 2001/77/EC

### Requires Member States

- to provide priority access to the grid system for electricity from RES
- to develop grid infrastructure
- to review cost sharing rules


# ● Promotion of biofuels (1)

## Sustainability criteria for biofuels :

- GHG savings – minimum of 35%
- No raw material from undisturbed forests, biodiverse grassland, nature protection areas (unless taken harmlessly)
- No conversion of wetlands and continuously forested areas for biofuel production (to protect carbon stocks)
- All EU biofuels must meet “cross compliance” environmental rules

# Promotion of biofuels (2)

- **Consequences of not meeting the criteria:**
  - **Biofuels do not count towards targets**
  - **Not eligible for national biofuel obligations**
  - **Not eligible for tax exemptions and similar financial support**
- **Verification of compliance:**
- **Responsibility of Member States**
  - **To reduce the administrative burden, Commission can decide that “certification schemes” give reliable proof of compliance**
  - **If so, all Member States have to accept these certificates as proof**

A wide-angle photograph of a vast field of bright yellow flowers, likely rapeseed, stretching to the horizon. The sky is a deep blue, filled with scattered, soft white and grey clouds. The foreground shows the green stems and leaves of the plants. The overall scene is bright and cheerful.

Thank you for your attention