



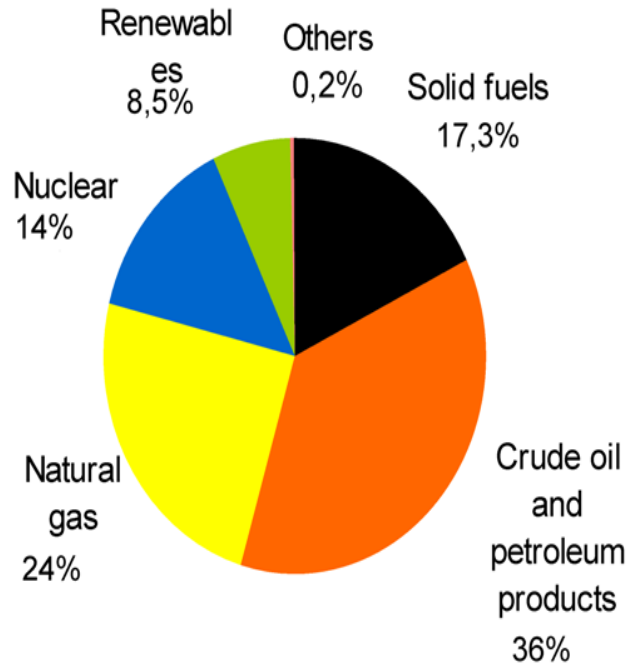
Directorate-General  
for Energy  
and Transport

# The EU Perspective: Introduction to the EU Climate and Energy Package



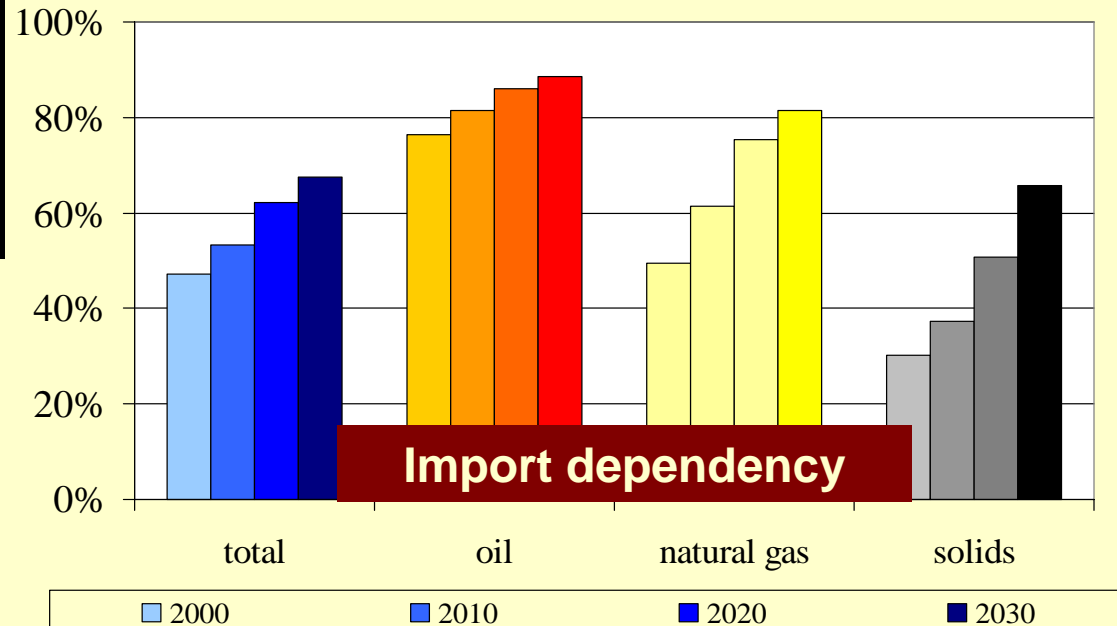
**Denis FOURMEAU,**  
**Counsellor, EU Delegation Beijing**

## EU energy mix: business as usual is not sustainable



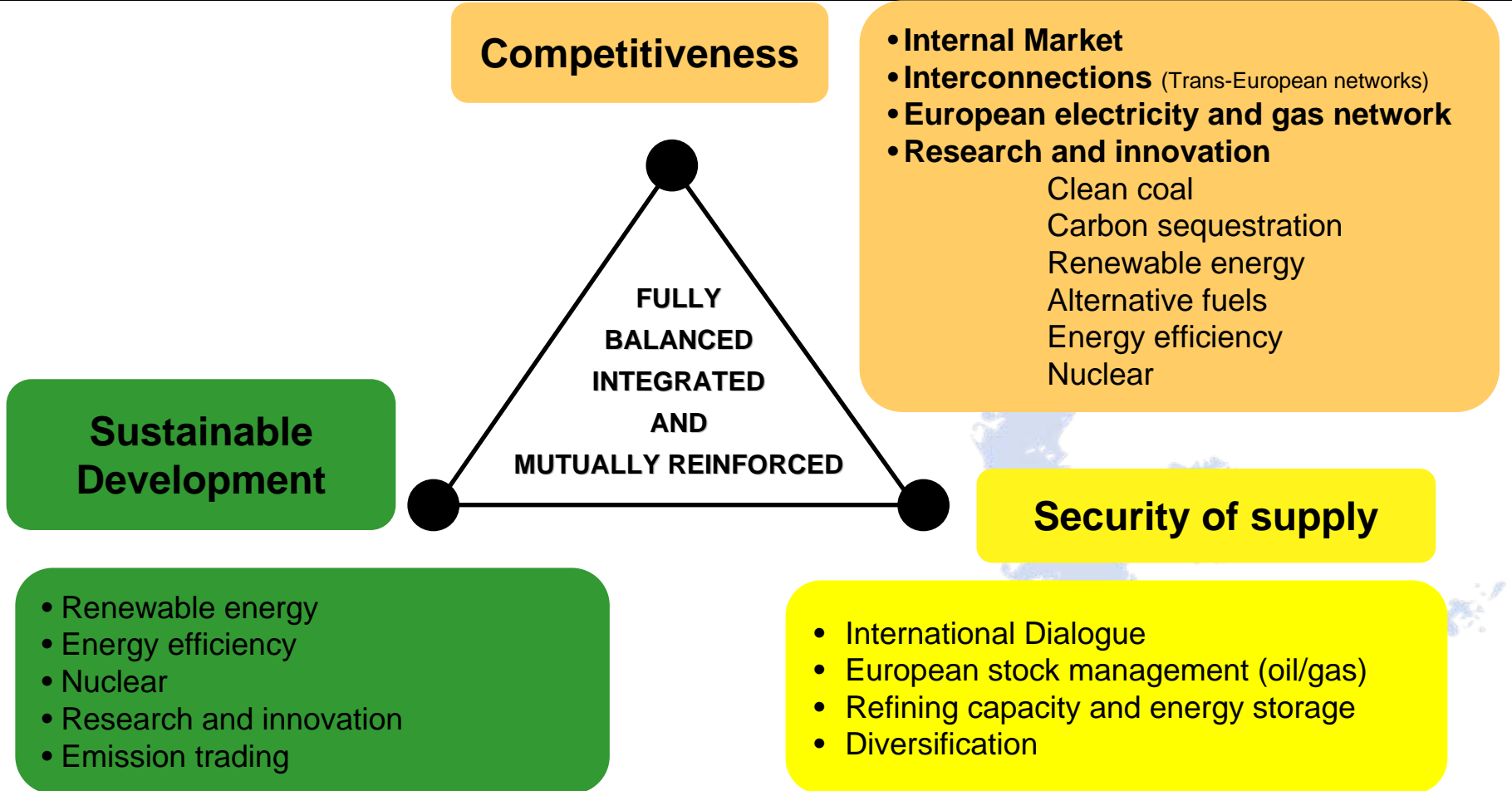
**2005**

**~ 80% fossil fuel**



1. Growing concern about security and continuity of oil and gas supplies; rising energy prices, despite the increased efficiency resulting from EU market liberalisation
2. Climate change
3. EU competitiveness policy: need for innovative industrial development and leadership
  - **3 pillars of EU energy policy: sustainability, security of supply, competitiveness**

# Integrated climate and energy policy



- January 2008 “energy package” proposed targets for 2020 of a
  - 20% GHG reduction (compared to 1990)
  - 20% renewable energy (from today 8.5%)

### **“20-20 by 2020”**

In addition:

- 20% increase in energy efficiency
- 10% biofuel component in vehicle fuel

# Key drivers by 2020

By 2020 -20% **EU GHG**

By 2020 +20% **EFFICIENCY**

By 2020 binding 20% **RENEWABLES** in final energy consumption at EU level

**BIO-FUELS**

Min 10%  
component  
in vehicle  
fuel

**ELECTRICITY**

MS binding  
choice

**HEATING &  
COOLING**

MS binding  
choice

**NATIONAL TARGETS & ACTION PLANS**

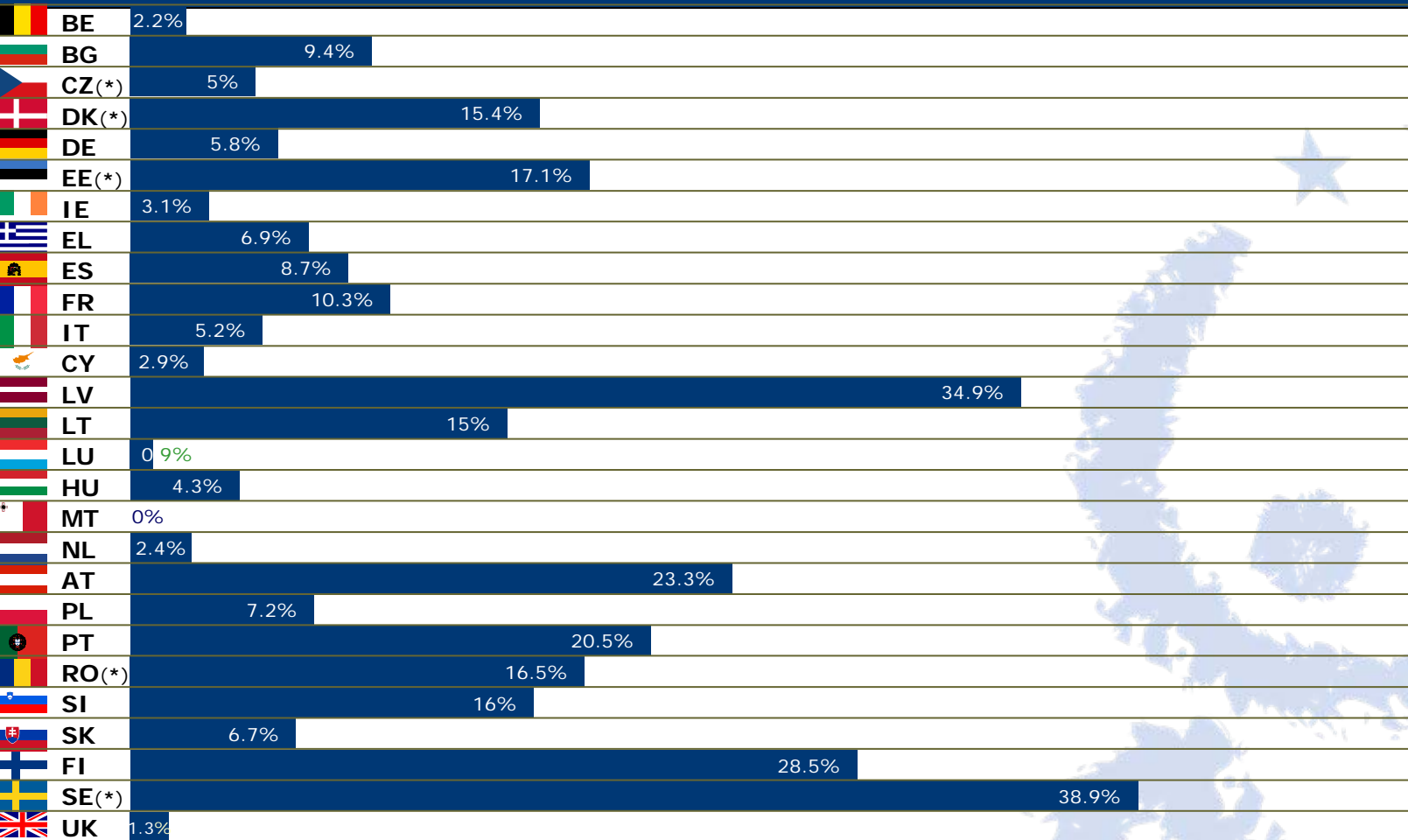
- A new EU **emissions trading scheme** with a European (not national) cap, auctioning of allowances: to generate reductions in GHG of 20%
- New national targets to achieve a 10% GHG reduction in **non ETS sectors**
- A framework to promote the development of **CO<sub>2</sub> capture** and storage (aim: all new plants be near-zero emission by 2020)
- An assessment of national **Energy Efficiency Action Plans**
- **NEW DIRECTIVE** to reach the 20% renewable energy target and 10% biofuels target

# The renewables Directive ( 2009/28/EC, adopted April 2009)

1. Sets **mandatory national targets** for renewable energy shares, including 10% biofuels share, in 2020 (*Article 3*)
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 6-10, and 15*)
4. Requires **reduction of administrative and regulatory barriers** (*Article 13*), improvements in provision of information and training (*Article 14*) and improves renewables’ access to the electricity grid (*Article 16*)
5. Creates a **sustainability regime** for biofuels (*Articles 17-19*)



# EU-27 efforts in Renewables: RES share in 2005

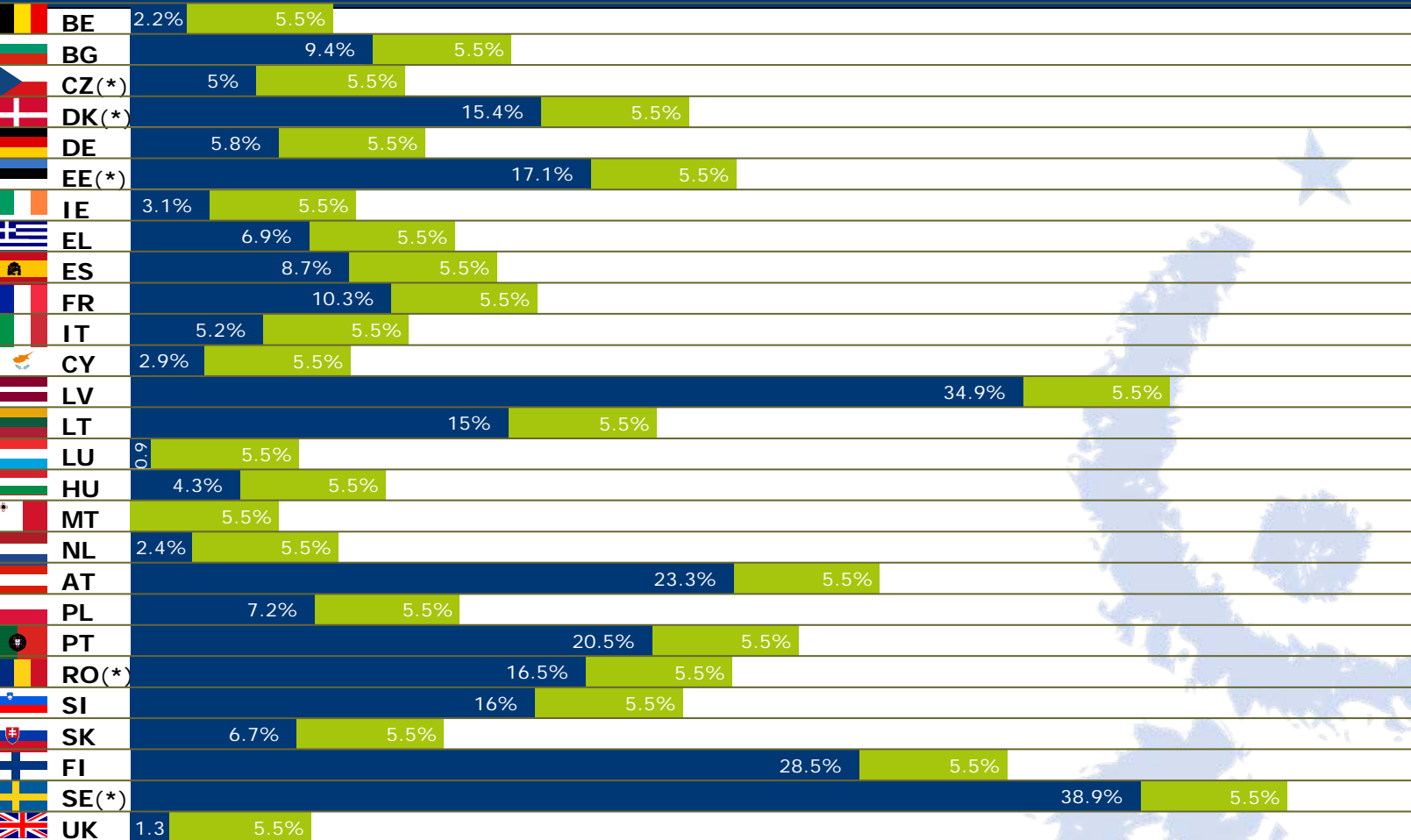


RES share in 2005

NB: EU average 8,5%

(\*) Figure adjusted by early starter bonus

# EU-27 efforts in Renewables: flat rate increase

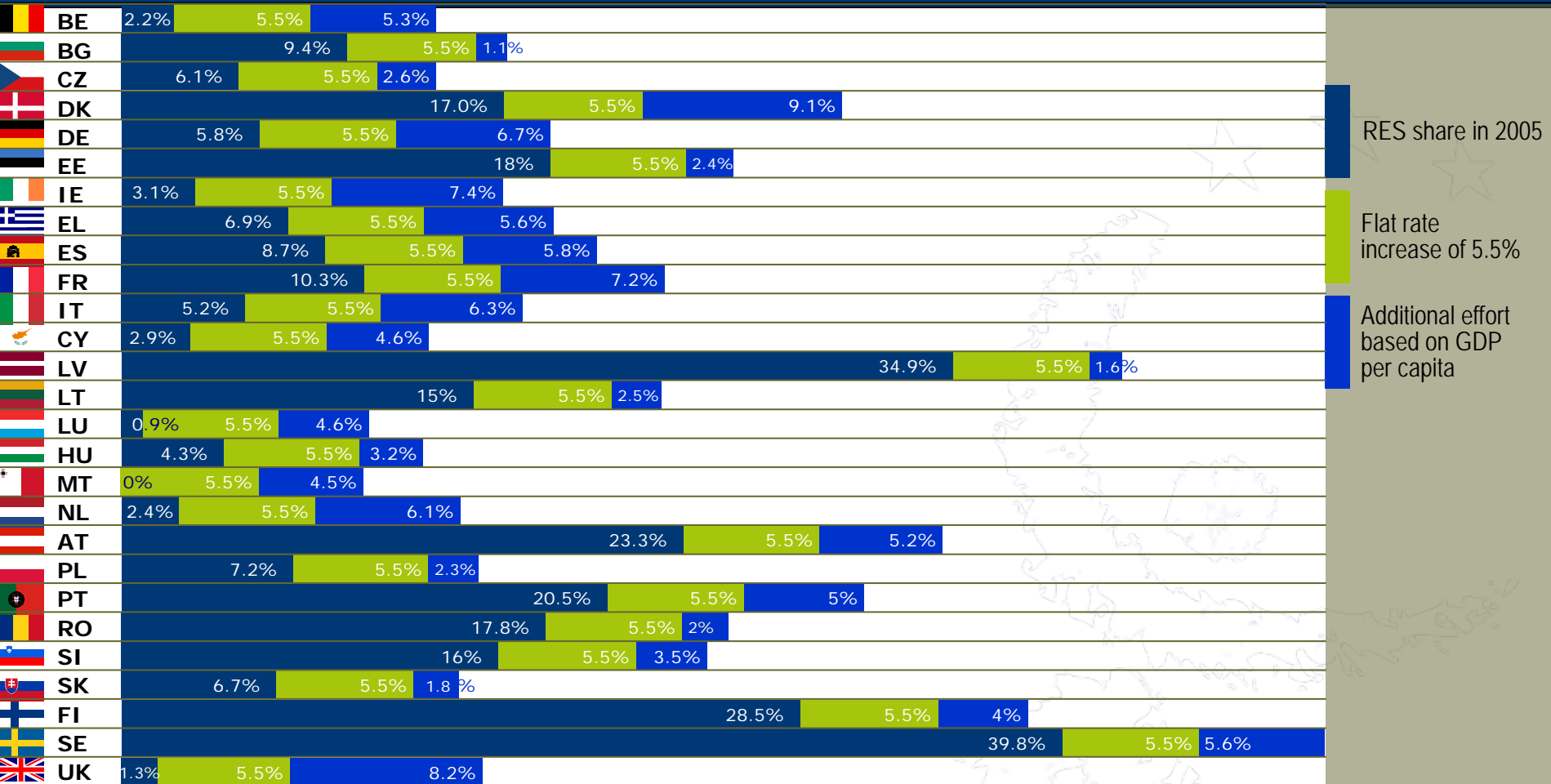


RES share in 2005

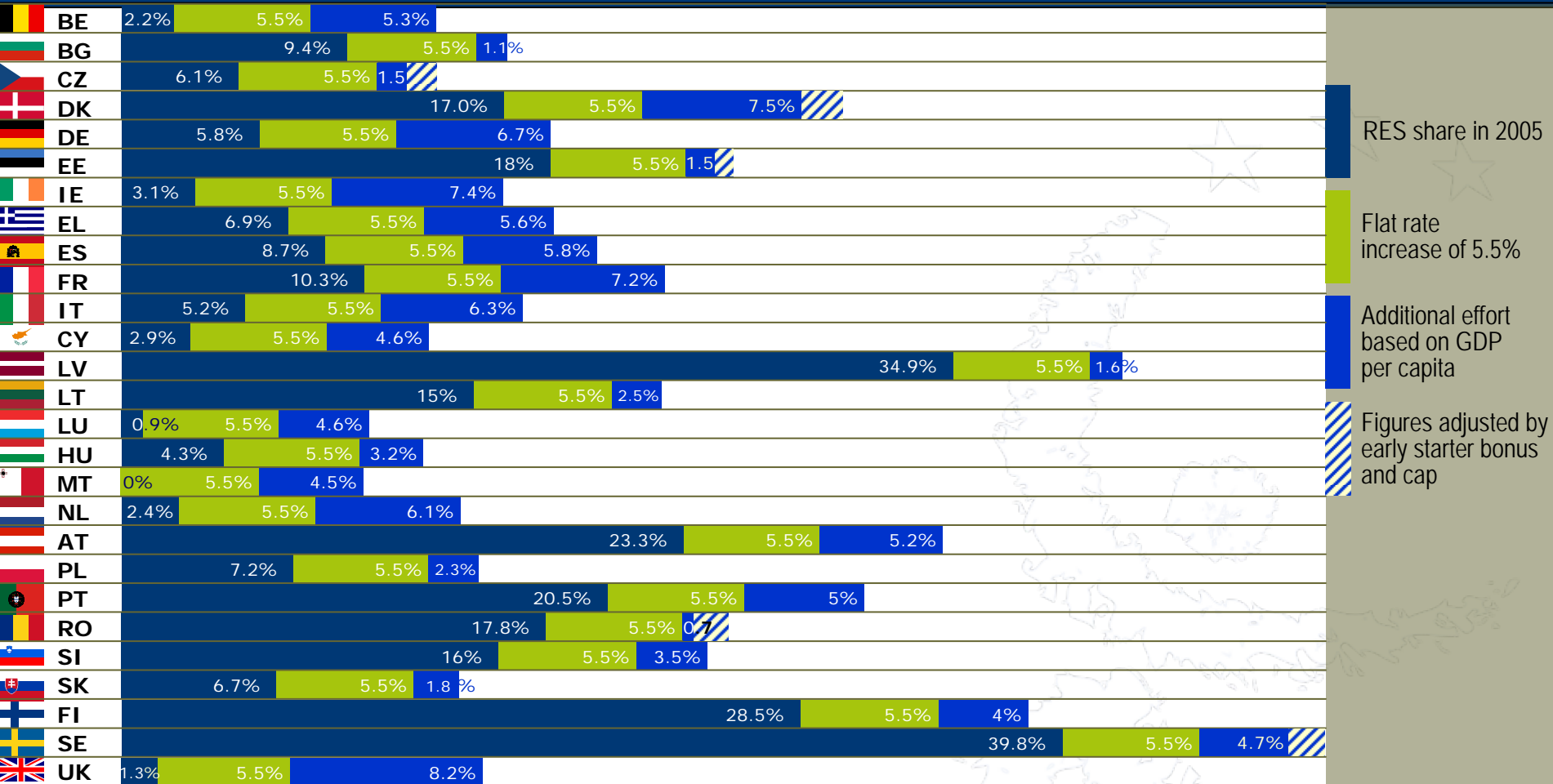
Flat rate increase of 5.5%

(\*) Figure adjusted by early starter bonus

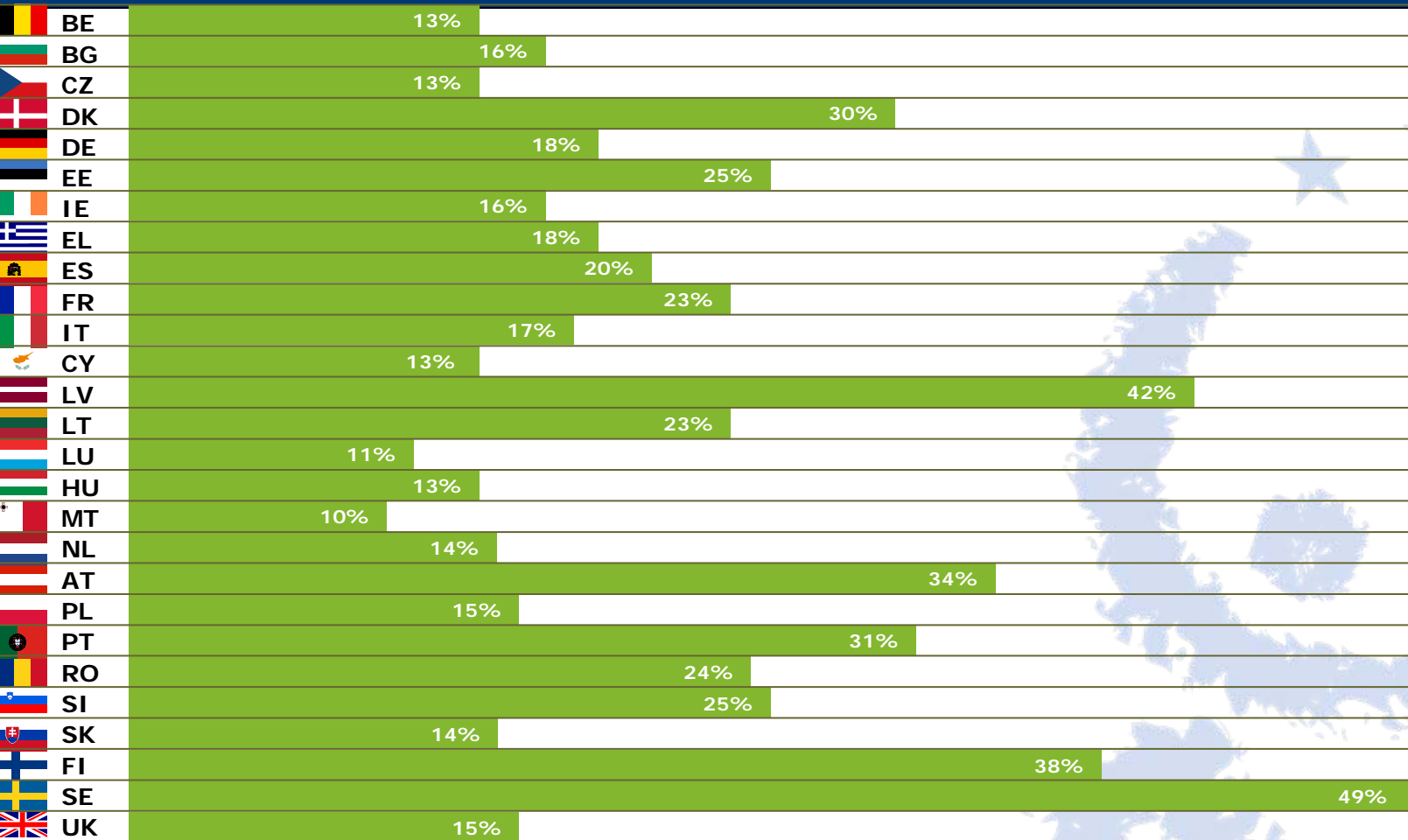
# EU-27 efforts in Renewables: GDP weighted increase



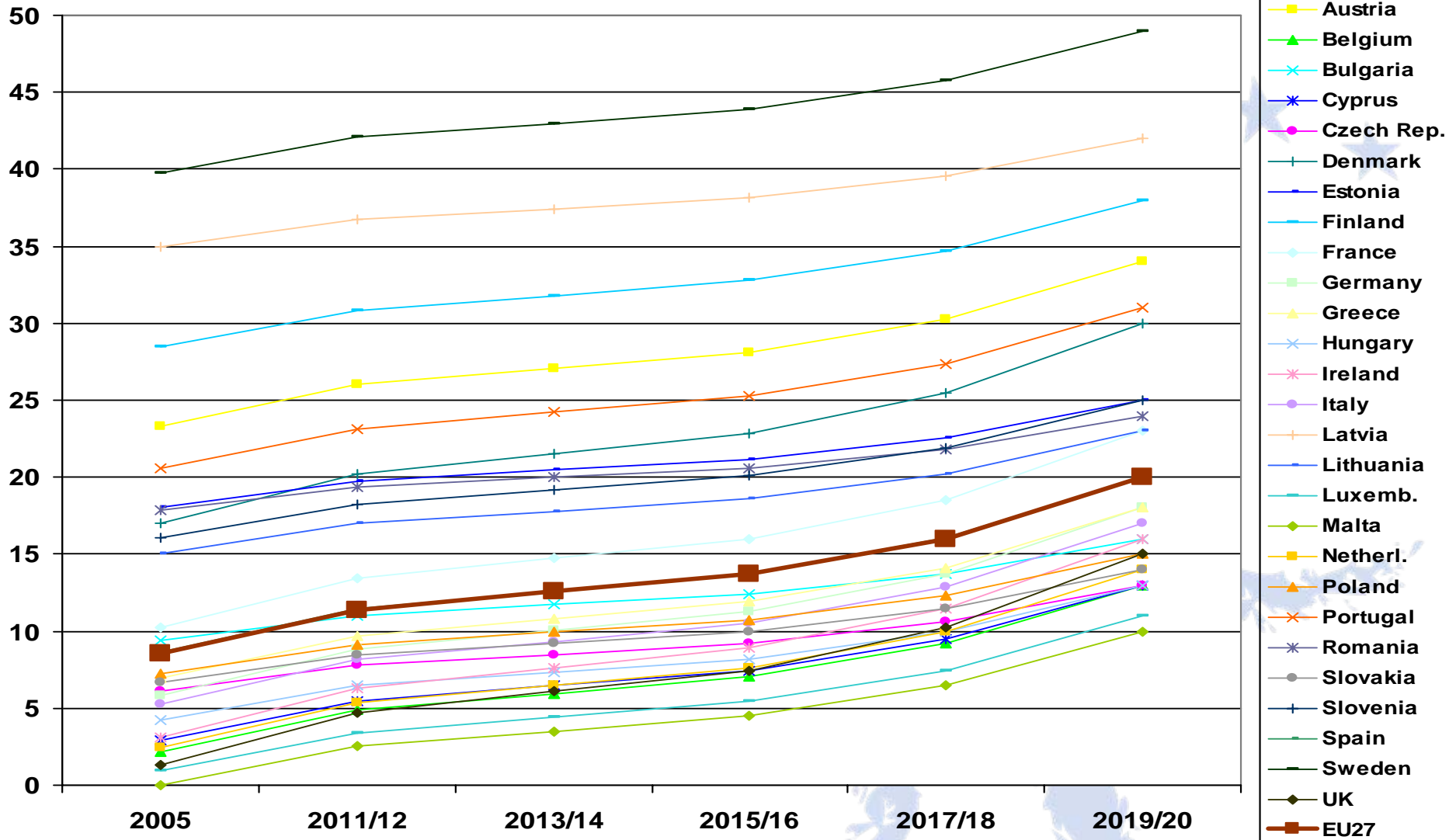
# EU-27 efforts in Renewables: early starter adjustment & cap



## EU-27 efforts in Renewables: + modulations & cap



RES share in 2020









- Sectoral targets now set by Member States (“Where?”)
- Measures adequate to achieve the targets including planned development of biomass resources (“How?”)
- Provides policy stability for investment (“Why?”)

## = **Certifying the renewable origin of electricity or heat**

- Standardise information requirements, issuing, transfer and cancellation procedures
- Requires the nomination of an independent competent body to manage GOs.

**The transfer of guarantees of origin gives the flexibility to meet national targets by developing cheaper renewable energy in other Member States**

Member States meeting their trajectory may transfer extra GOs to other Member States

## Improves renewables' access to the electricity grid

### Requires Member States

- to provide priority access to the grid system for electricity from RES
- to develop grid infrastructure (=>“smart” grids)
- To review cost sharing rules



- Sustainability criteria for biofuels :
  - GHG savings – minimum of 35% rising to 50% in 2017
  - No raw material from sensitive areas (old forest, grasslands, protected areas)
  - No conversion of wetlands and continuously forested areas
  - EU biofuels must meet “cross compliance” environmental rules
- Bonuses for second generation biofuels and for electric vehicles
- 2009: guidance on sustainability criteria and proposal on biomass sustainability criteria.

## HOW MUCH WILL IT COST ?

- **13 to 18 billion Euros per year**



### **HOW MUCH WILL IT COST ?**

- **13 to 18 billion Euros per year**

### **HOW MUCH WILL IT COST **ME** ?**

- **This amounts to about 30 €per EU citizen per year\***

\* EU population= 500 million

## Actually less, since:

- **13 to 18 billion Euros per year investment will drive down the price of the renewable energy technologies**
- **Renewable energies today cost more than energies from conventional sources, but for how long???**
- **Many Member States already help consumers out with the extra cost of renewables (tax incentives)**

## WHAT IS THE PROBLEM?

- **The EU needs to cut its GHG emissions. This is not happening fast enough**
- **Increased dependence on imports of oil and gas => needs to find new energy alternatives**



## WHAT IS THE PROPOSAL?

- **To set an EU target of a 20% share of renewable energy in 2020 (compared to 8,5% in 2005)**
- **To divide the effort fairly between Member States**
- **To remove barriers to the growth of renewable energy (simplification of authorization procedures)**
- **To encourage better types of renewable energy (for example, by setting sustainability standards for biofuels)**

## WHAT ARE THE BENEFITS?

- **Savings of 600 to 900 million tons CO<sub>2</sub> per year**
- **Reduction of fossil fuel consumption of 200 to 300 million tons per year**
- **All citizens will benefit from lower GHG emissions and more secure energy**
- **A boost for high-tech industries, new economic opportunities and jobs, mainly in rural areas**

For general information on EU energy policy:

[http://ec.europa.eu/energy/index\\_en.html](http://ec.europa.eu/energy/index_en.html)

Third legislative package:

[http://ec.europa.eu/energy/electricity/package\\_2007/index\\_en.htm](http://ec.europa.eu/energy/electricity/package_2007/index_en.htm)

Climate and renewable package:

[http://ec.europa.eu/energy/climate\\_actions/index\\_en.htm](http://ec.europa.eu/energy/climate_actions/index_en.htm)

Strategic Energy Technology Plan:

[http://ec.europa.eu/energy/res/setplan/communication\\_2007\\_en.htm](http://ec.europa.eu/energy/res/setplan/communication_2007_en.htm)

Intelligent Energy Europe:

[http://ec.europa.eu/energy/intelligent/index\\_en.html](http://ec.europa.eu/energy/intelligent/index_en.html)