



# An Energy Policy for Europe

*Derek M. Taylor  
Energy Adviser  
European Commission*

The answer is:

20



# An Energy Policy for Europe





# Why « 20 » ?

The core objective of the policy is:

- A 20% reduction of the greenhouse gas emissions that energy produces by 2020



and also ....

## Renewable energies

- *Increase the level of renewable energies in the EU's overall energy mix to 20% by 2020*



while not forgetting ....

Energy efficiency

- *The policy calls for a really ambitious improvement in energy efficiency of 20% by 2020*



and even ....

Fossil fuel power plants

- *We have a target date of 2020 for carbon capture and storage (CCS) to be included in all new fossil fuel power plants*



# There is however.....

One **10%** target for biofuels

➤ *There should be a minimum and common biofuels target of **10%** of the fuel mix ..... by **2020***





# But there is also ....

## One very important target of **30%**

- *The Commission believes that when an international agreement is reached on the post-2012 Kyoto targets, that this should lead to a **30% cut in greenhouse gas emissions from developed countries by 2020** (of course!)*



# Non-quantifiable objectives

- Completion of the **internal energy markets** for gas and electricity
- **Solidarity** between Member States concerning security of supplies for oil, gas and electricity
- A common **external policy**
- Targeting **research** towards low carbon energies.



# Main supporting documents

- **Renewable Energy Road Map**
- **Report on progress in renewable electricity**
- **Biofuels progress report**
- **Prospects for the internal gas and electricity market**
- **Priority interconnection plan**
- **Nuclear illustrative programme**
- **Sustainable power generation from fossil fuels: aiming at near-zero emissions by 2020**
- **Towards a European strategic energy technology plan**



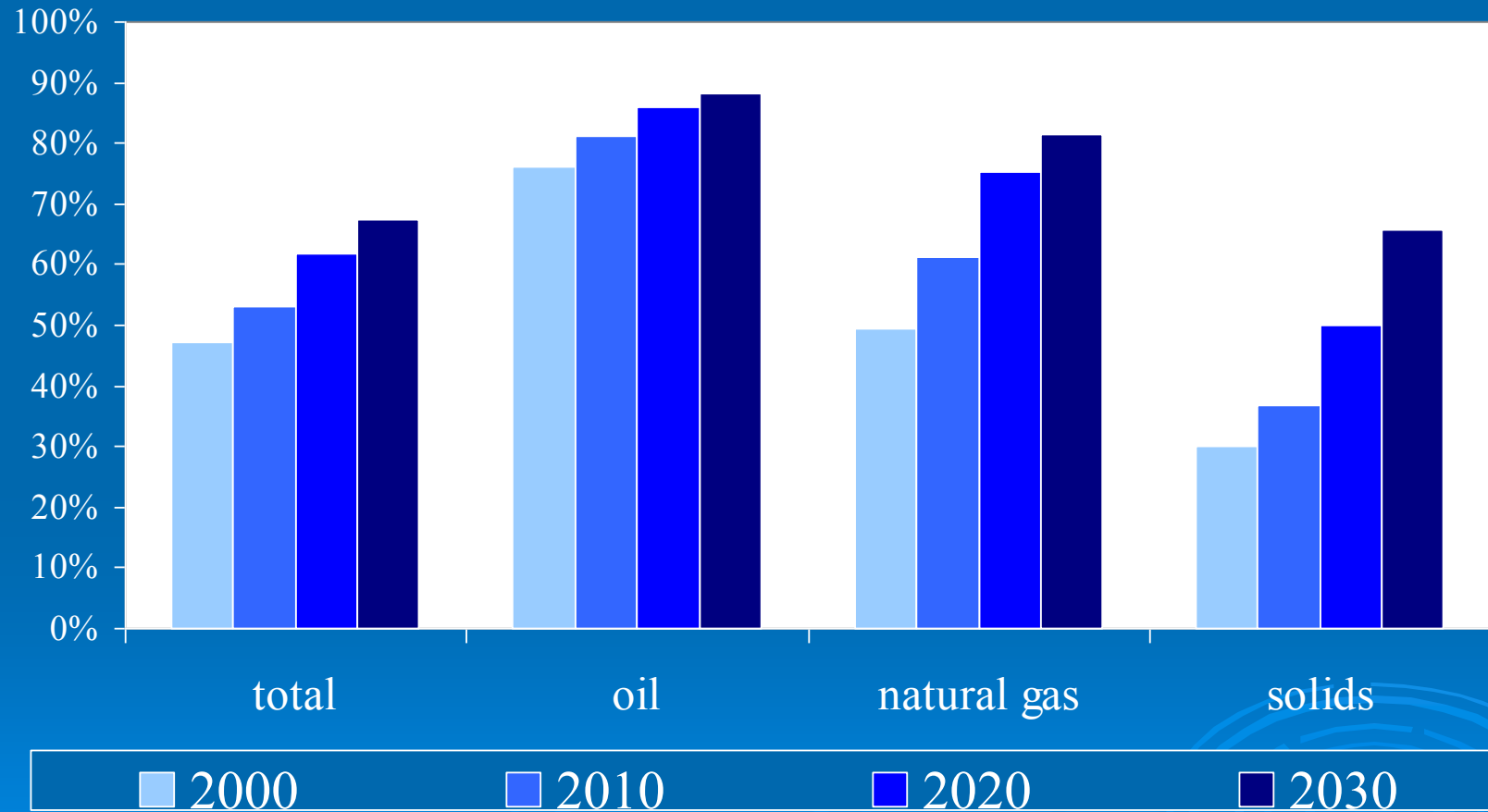
# An energy policy...

Should result in:

- Energy that is available whenever we need it (security of supply)
- Energy at a price we – and industry – can afford (competitiveness)
- Energy that does not destroy our environment (sustainability)



# Dependency on imports





# Main sources of imports

## ➤ Main suppliers of oil

- Russia (31%)
- Norway (20%)
- Saudi Arabia\* (13%)
- Libya (10%)
- Iran\* (7%)
- (\* Total Middle East ~22%)

## ➤ Main suppliers of gas

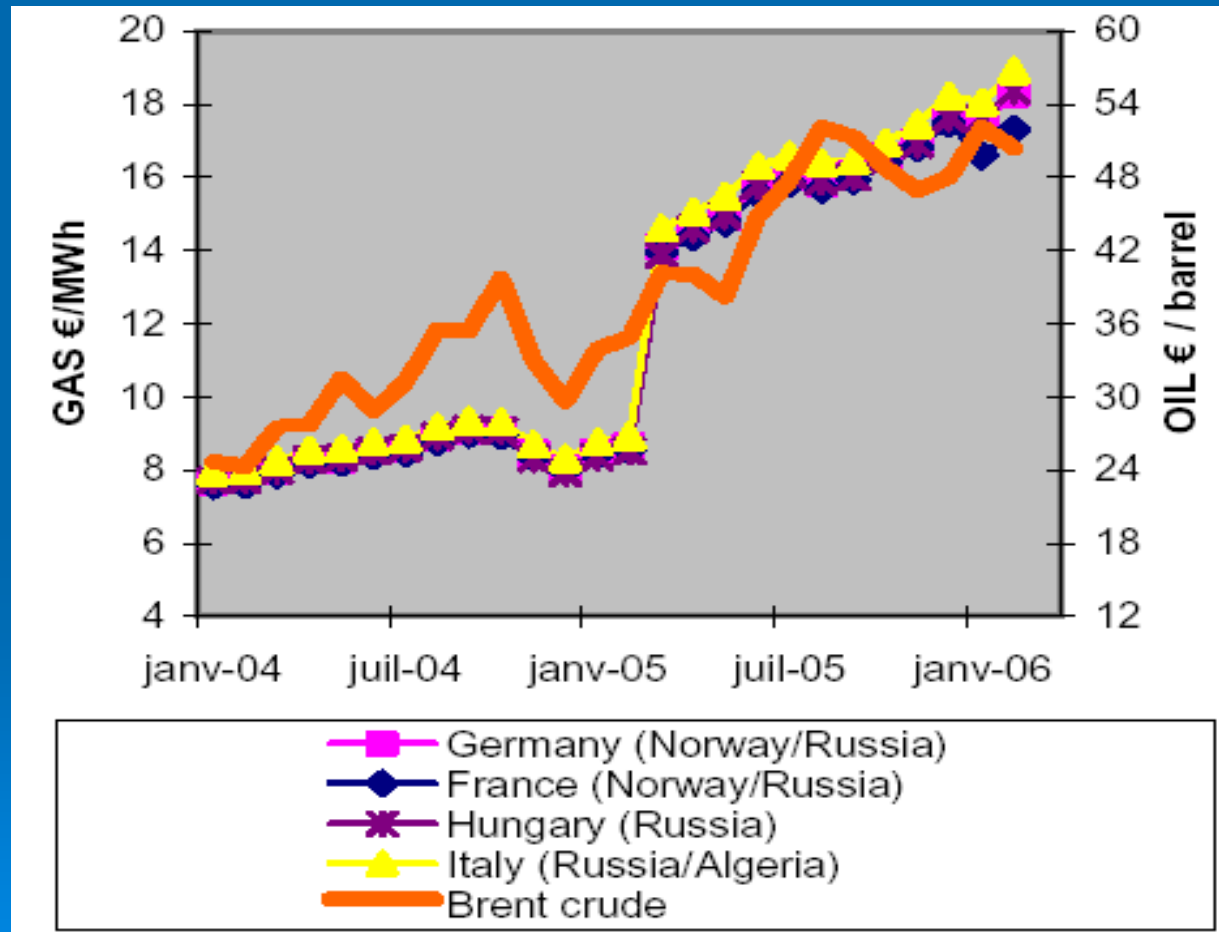
- Russia (33%)
- Norway (29%)
- Algeria (21%)
- Mainly LNG (12%)

## ➤ Main suppliers of coal

- South Africa (26%)
- Russia (16%)
- Australia (15%)
- Colombia (12%)

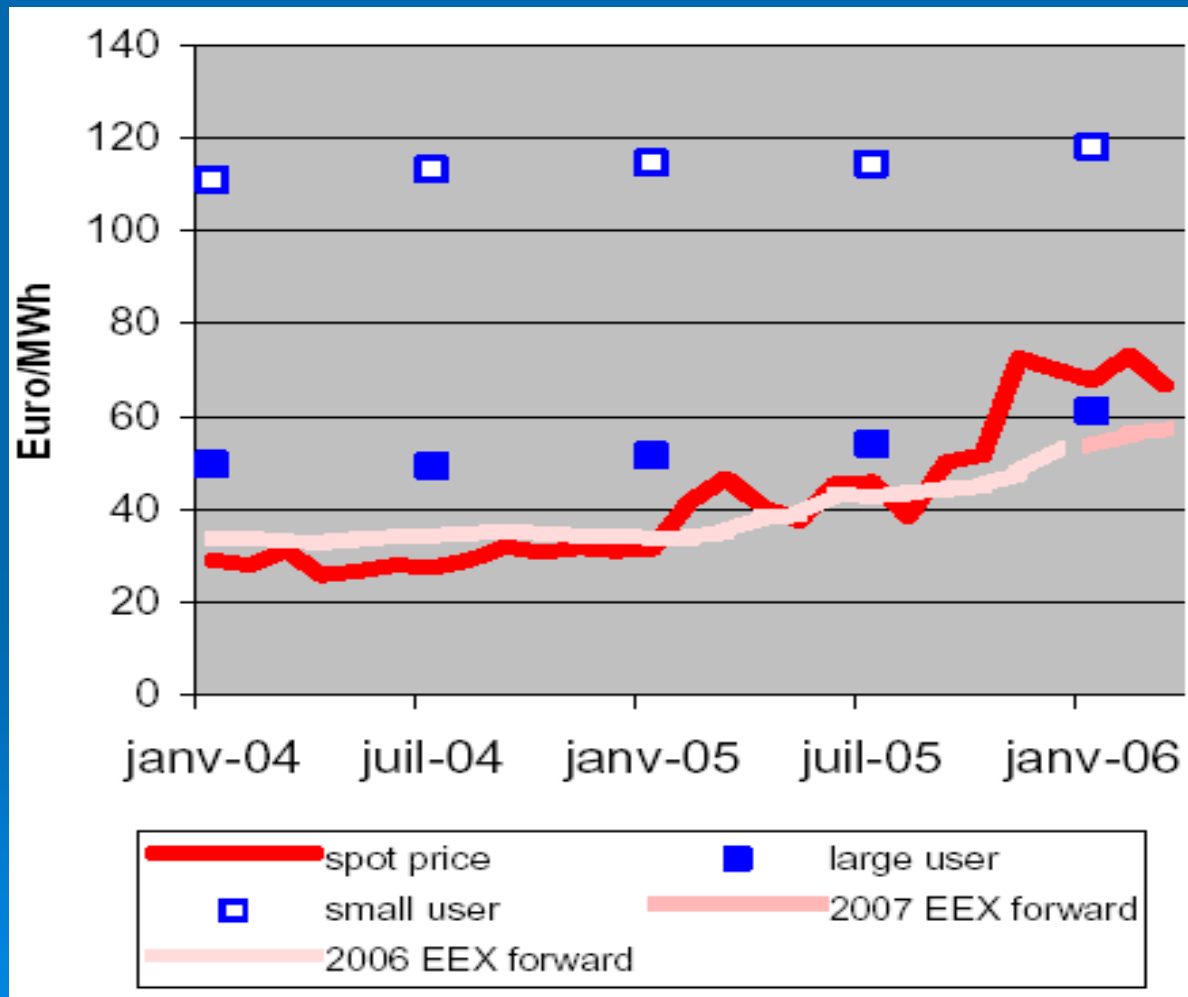


# Border prices for oil and gas





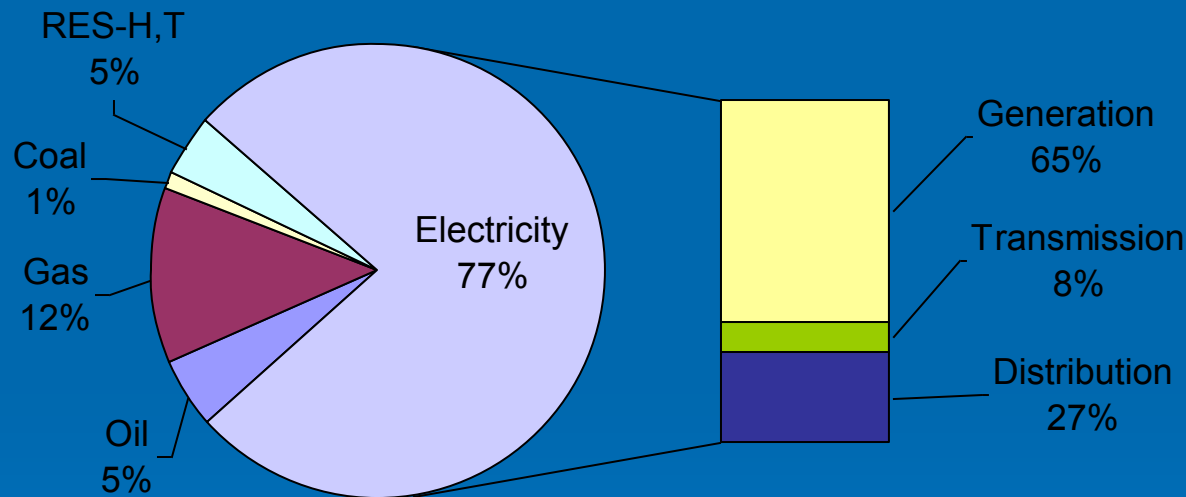
# Electricity prices in EU







# Investment needed!

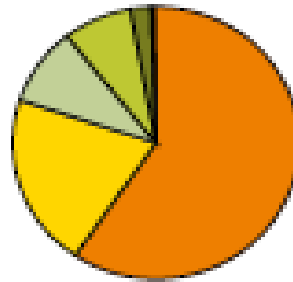


**EU-27 INVESTMENT NEEDED-**  
**Up to 2030: €900 billion just**  
**for the electricity sector**



# CO<sub>2</sub> emissions

**Total GHG 2004**

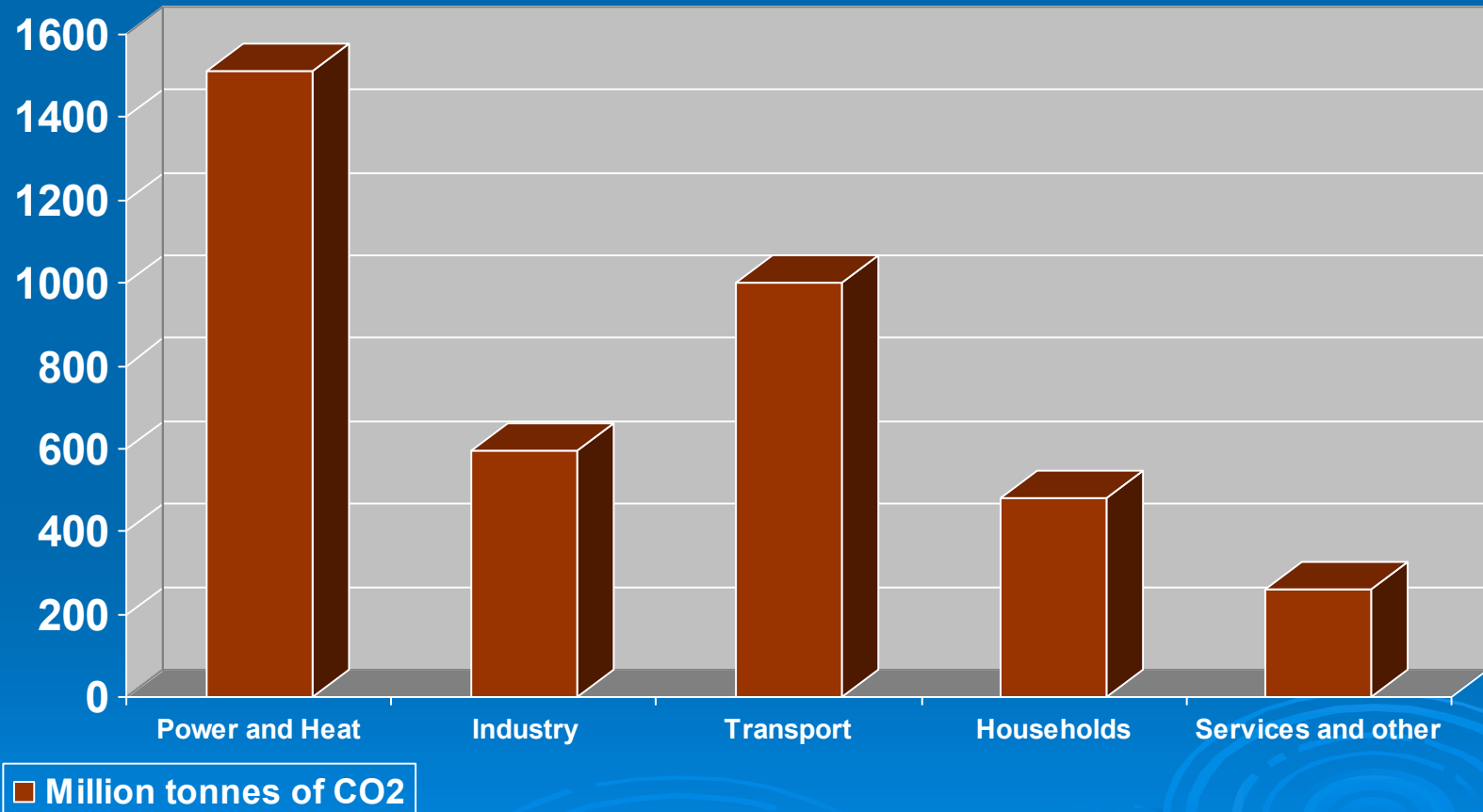


- Energy use excluding transport 59 %
- Transport 21 %
- Agriculture 9 %
- Industrial processes 8%
- Waste 3 %

**CO<sub>2</sub> from energy makes up 80% of EU  
Greenhouse gas emissions**



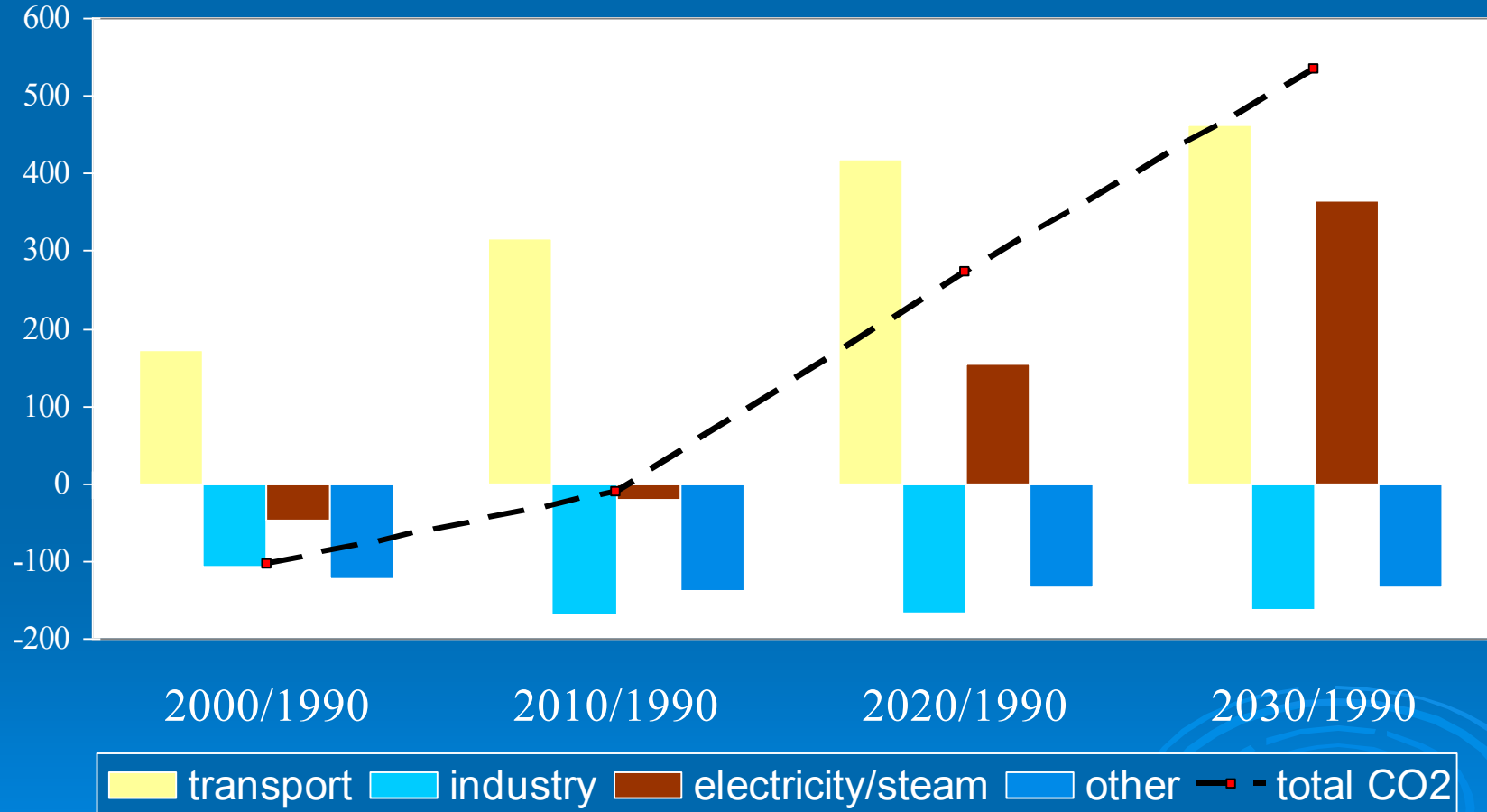
# CO<sub>2</sub> from energy





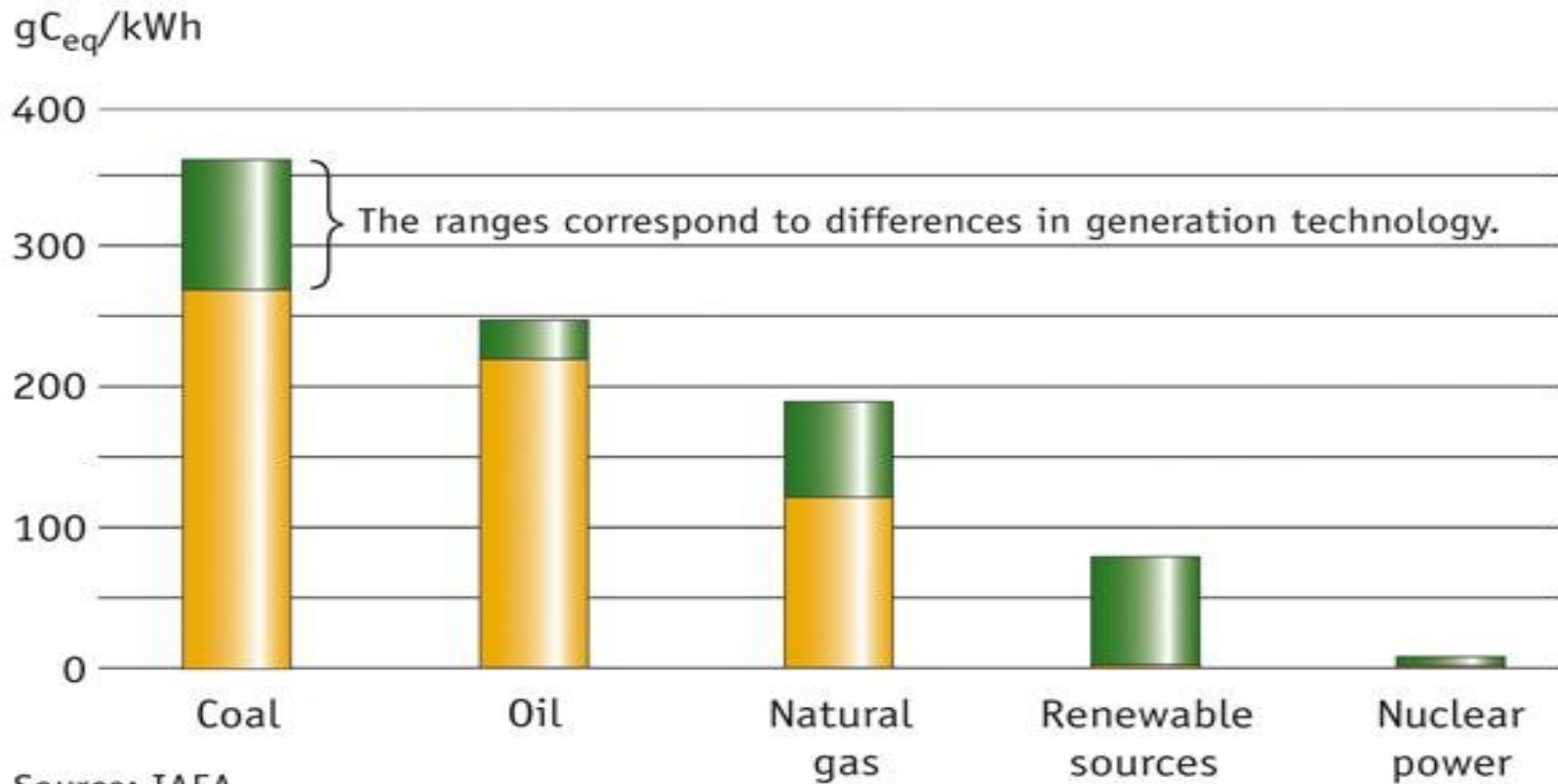
# Changes in CO<sub>2</sub> emissions

(in millions of tonnes – relative to 1990)





# CO<sub>2</sub> emissions/kWh (IAEA)



Source: IAEA.



# The present situation in EU

Our energy supply:

- Is increasingly dependent on imported sources
- Is increasingly expensive (and making us less competitive with others)
- Is increasing pollution and accelerating climate change
  - ***So a new energy policy was urgently needed***



# ***New Industrial Revolution***

The EU to take global leadership by:

- Accelerating move to « low carbon growth »
- Increasing amount of locally produced, low emission energy
- Capturing the global high-efficiency, low emission technology market
- Opening up the energy markets in the EU to cross border trading and greater competition
- Setting an example and working with other States to defeat climate change



# What happened next?

- There were many presentations of the package
- There has been much discussion, debate and, of course, lobbying
- Then the package was discussed in the Energy and Environment Councils in February.
- Finally, it was discussed at the European Summit on 8-9 March. A number of « Conclusions » were adopted which clearly supported the Commission's approach

And now....

the Commission has started to produce new proposals for legislation





# What is happening about completion of the Internal Energy Market?

- The expected opening of the EU energy markets is slower than expected
- Further EU liberalisation is an important element of Community energy policy
- The Council clearly supported the Commission's efforts to secure an effective liberalisation of EU energy markets and its work to secure more open and transparent energy markets.

As a result:

- Adoption by the Commission of the third package on energy market liberalisation on 19 September 2007



# Elements of the 3rd Internal Market Package

- The main elements of the Third Package are:
  - Unbundling – preferred and second (ISO) options
  - Control of EU networks – third country companies
  - Facilitating cross-border trade – new Agency
  - More effective national regulators - measures
  - Promoting cross-border collaboration and investment – European Network of TSOs
  - Greater transparency - network operation and supply and pricing
  - Increased solidarity – in the face of threats to supply



# What is happening with energy efficiency?

- In October 2006 the Commission adopted an Action Plan on energy efficiency.
- The Commission is working on the implementation of a number of important Directives
  - Buildings Directive (from 2002 – should now be transposed!)
  - Ecodesign and labelling Directive (from 2005)
    - Setting minimum requirements for new products
    - Setting labelling requirements for existing products
  - Energy Services Directive (from 2006)
    - Requires Member States to adopt National Action Plans for 2008-2017 and inform the Commission by summer 2007
- New Communication on national efficiency action plans in January 2008



**COMING  
SOON!**



# Actions to come in 2007

- Comprehensive Directive on use of renewables (December)
- Proposal for Office of the Energy Observatory (2<sup>nd</sup> Semester)
- Strategic Energy Technology (SET) Plan
- Consultation document on revision of emergency oil stocks (November)
- Energy Customer Charter (2<sup>nd</sup> Semester)



# ***NOT forgetting.....CO<sub>2</sub> !!!!***

- A new Directive on the EU Emission Trading Scheme (ETS)
  - *Cap for second period approved 6.5% below 2005 emissions*
  - New Directive to change:
    - Scope
    - Monitoring, Reporting and Verification (MRV)
    - Harmonisation and greater predictability
    - Linking to CDM/JI and other schemes
- A new Directive setting up the necessary framework legislation for carbon capture and storage
- A Communication on support for the early demonstration of carbon capture and storage



# Some concluding remarks

- Energy issues have shot up the **global** political agenda
- Partly, in Europe, driven by rapidly increasing concerns over security of supplies
  - especially imports (including competition resulting from impressive economic growth in **China and India**)
- Partly by recognition that climate change is already happening
- Partly by concerns over the competitiveness of European industry
  - and the problems the loss of that competitiveness will cause both in Europe **and globally**.....



# And finally .....

- The “Great Energy Debate” has been launched.
- It is a *truly global* debate.
- Please study the Package – looking beyond the “**20**” – and beyond “**2020**”
- Action **MUST** now follow quickly
- ....and we must **ALL** play our part.



# YOU CONTROL CLIMATE CHANGE.



**TURN DOWN. SWITCH OFF. RECYCLE. WALK. CHANGE**

For more information see the Commission's « Europa » web site  
or contact:

[derek.taylor@ec.europa.eu](mailto:derek.taylor@ec.europa.eu)