
GREEN PAPER

on

SECURITY OF SUPPLY

and the role of RES and RUE



On 29 November 2000, the Commission adopted a Green Paper on supply security, in order to launch a debate on the :

- geopolitical**
- economic &**
- environmental**

stakes involved in securing the E.U.'s energy supply.



Why the security of energy supply?

- **The Union 's increasing dependence as regards its energy supplies: 70% in 2030 from the current 50%**
- **Disturbing consequences: e.g. rocketing oil prices**
- **New challenges: climate change, internal energy market**



Why a Green Paper?

- **Need for a comprehensive thorough-going discussion**
- **No discussion of this type has ever really taken place**



Why now?

**Major energy-investment decisions will be taken
very soon**

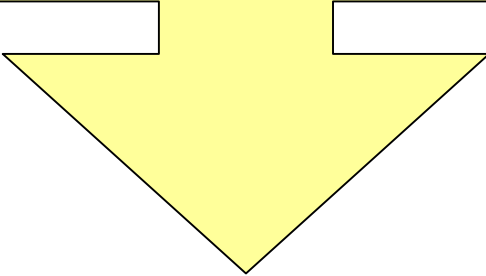
Action to combat climate change is urgently needed



The Green Paper 's structure

Step 1

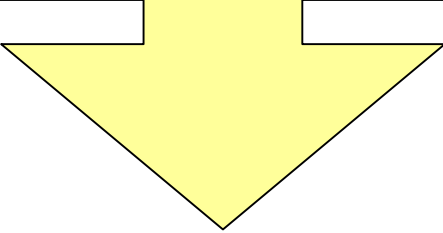
**The basic energy situation
will not enable the Union
to achieve a satisfactory level of energy
independence**



The Green Paper 's structure

Step 2

**Owing to climatic change and energy
market deregulation
the Union needs a fresh energy policy**



The Green Paper 's structure

Step 3

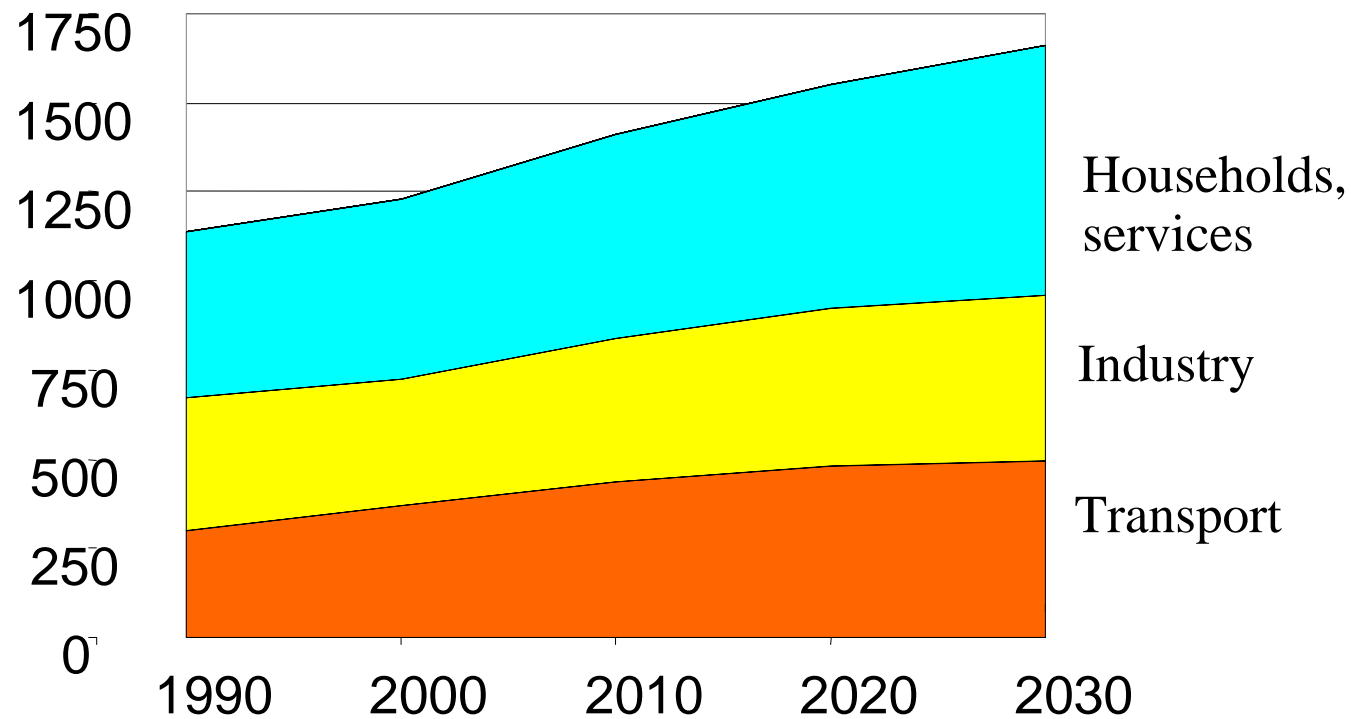
**The Commission is launching a discussion
on a new energy strategy**



The basic facts about energy

Energy self sufficiency is impossible to achieve

Europe-30: final energy consumption (in mtoe)



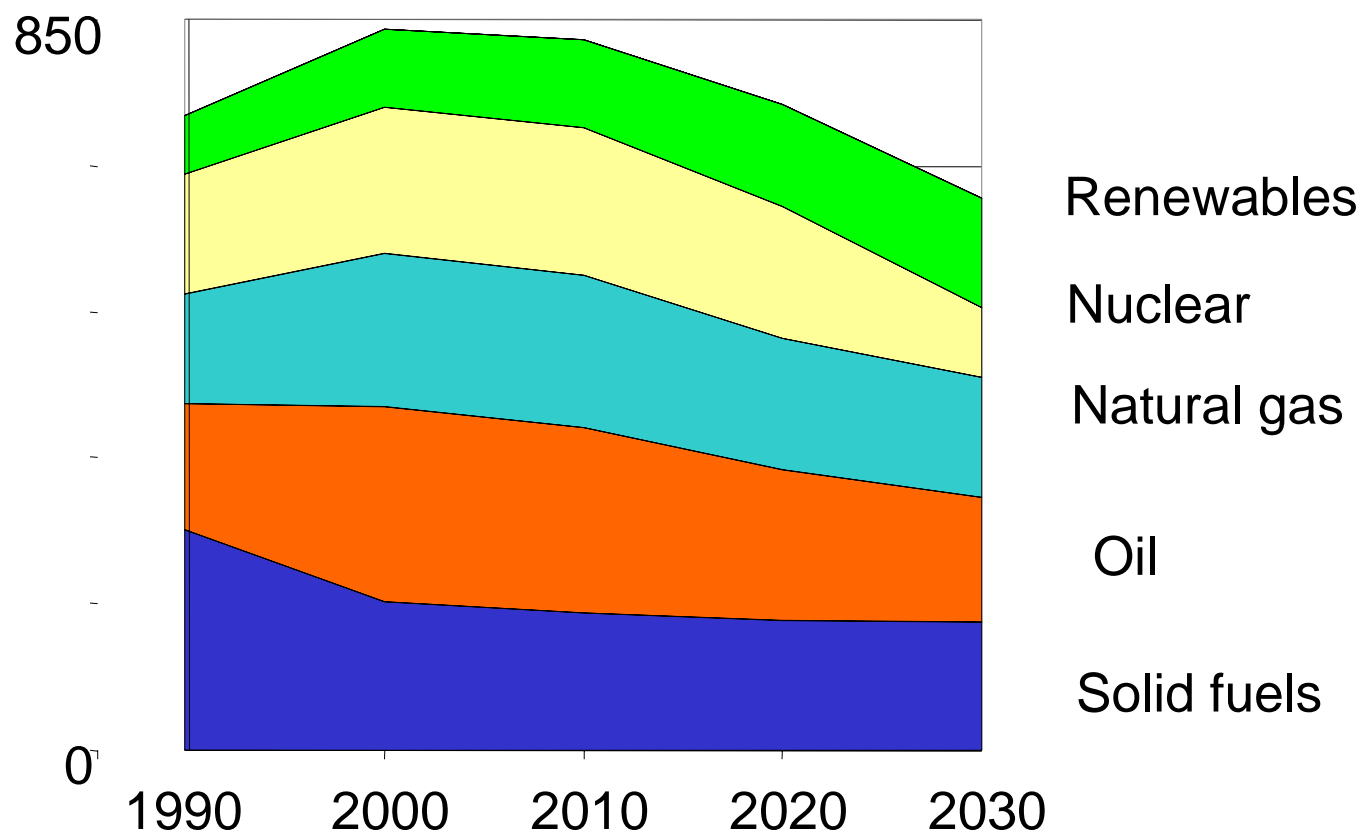
An energy-intensive economy: consumption + 1 to 2%/ year



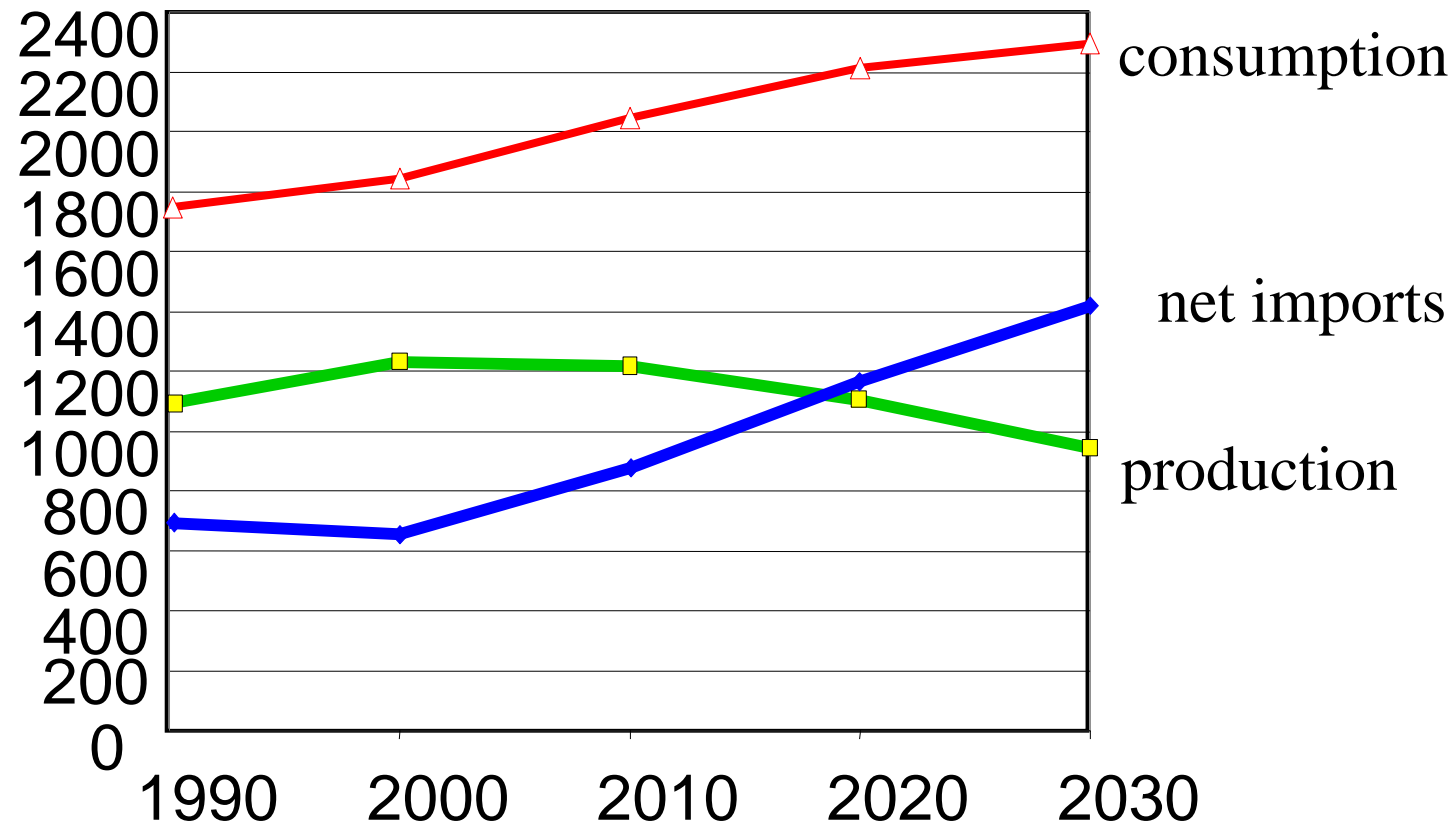
The basic facts about energy

The EU's resources are limited

Europe-30: energy production, reference scenario (in mtoe)



Europe-30: total energy balance (reference scenario in mtoe)

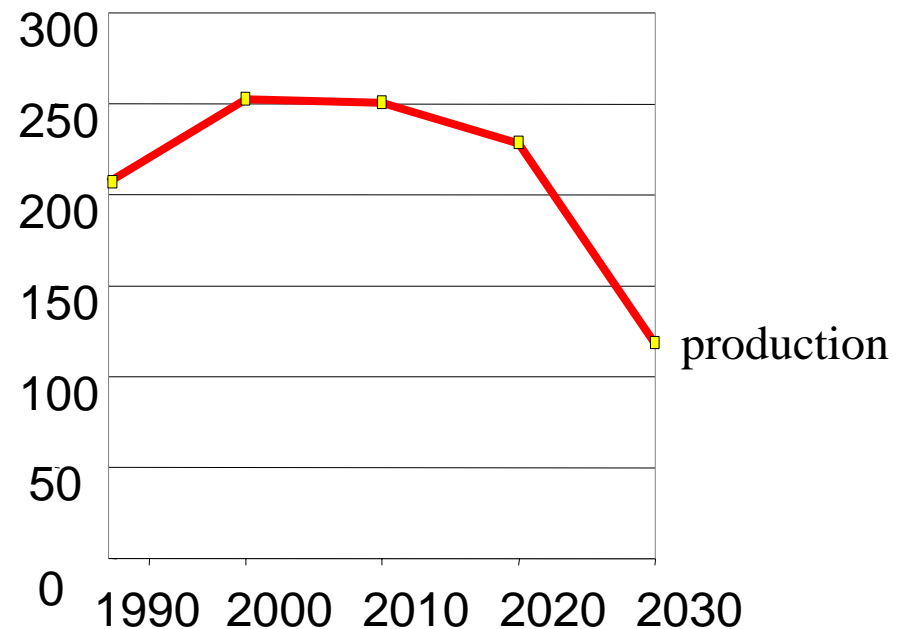


Less than perfect energy options (1)

Nuclear power: an energy source in doubt

- Cannot expand without a political consensus
- The thorny issue of waste must be resolved in a satisfactory, transparent manner
- The Union must maintain its nuclear-technology skills

*Europe-30: nuclear
(reference scenario in mtoe)*

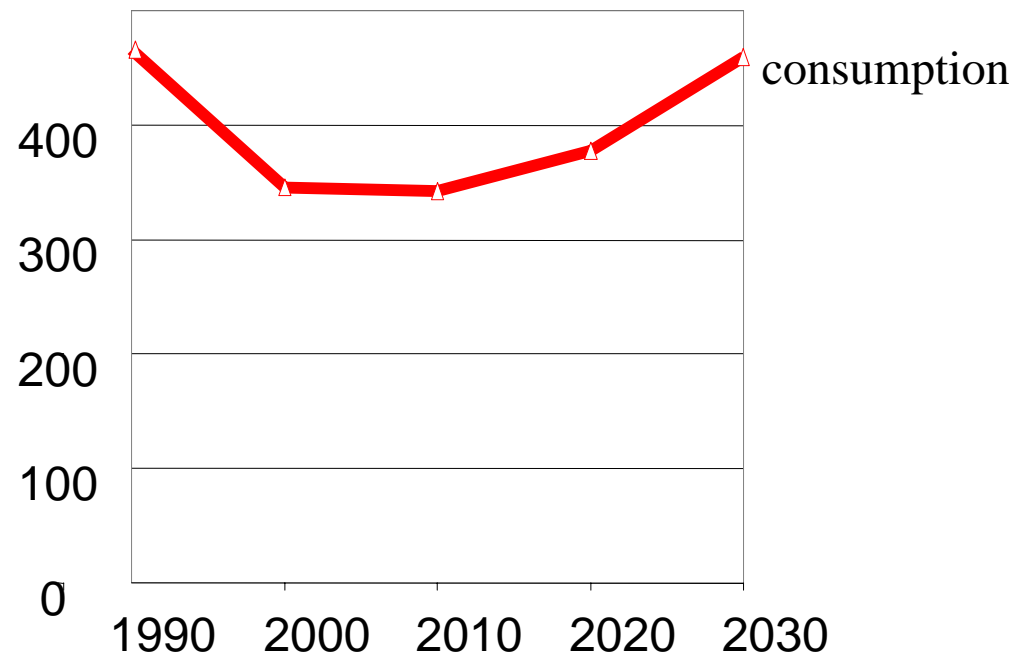


Less than perfect energy options (2)

Coal: a glorious past

- No major supply problem
- No economic future for production in the EU
- Future depends on reducing its environmental impact

*Europe-30: solid fuel
(reference scenario in mtoe)*

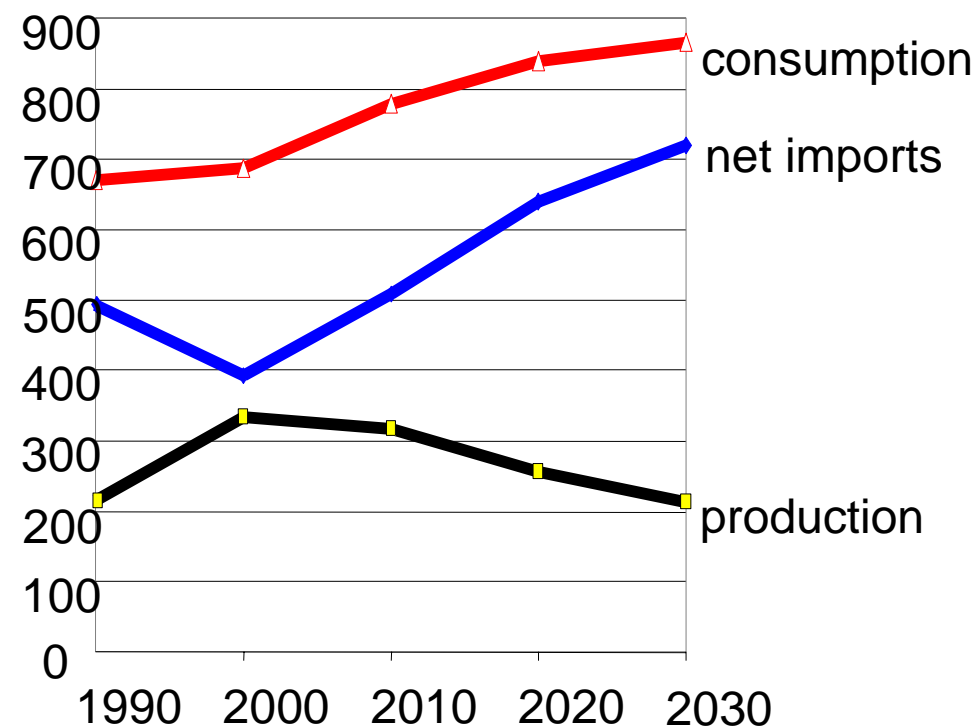


Less than perfect energy options (3)

oil : Still the favourite

- The dependence on oil could rise to 90% by 2020
- Action on substitution is needed, particularly in road transport
- Europe's economy should come to terms with an oil price of more than \$20

*Europe-30: oil
(reference scenario in mtoe)*

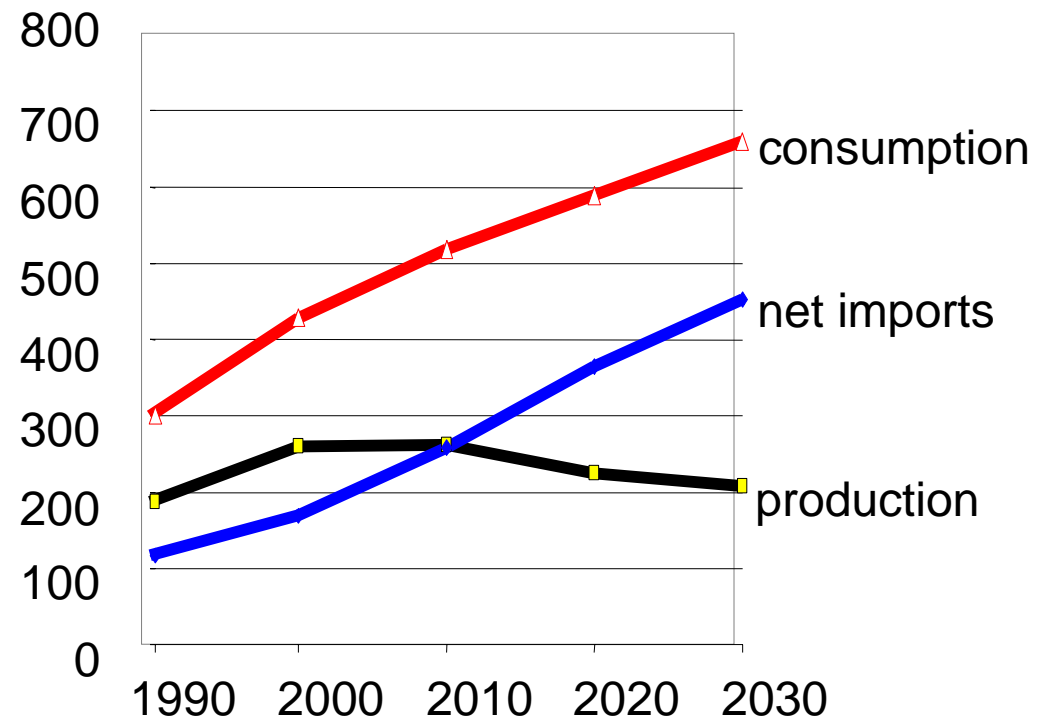


Less than perfect energy options (4)

Natural gas: towards a new dependence

- Risk of long-term supply problems (imports largely from Russia and Algeria)
- Risk more pronounced as carbon consumption becomes less intensive

*Europe-30: natural gas
(reference scenario in mtoe)*



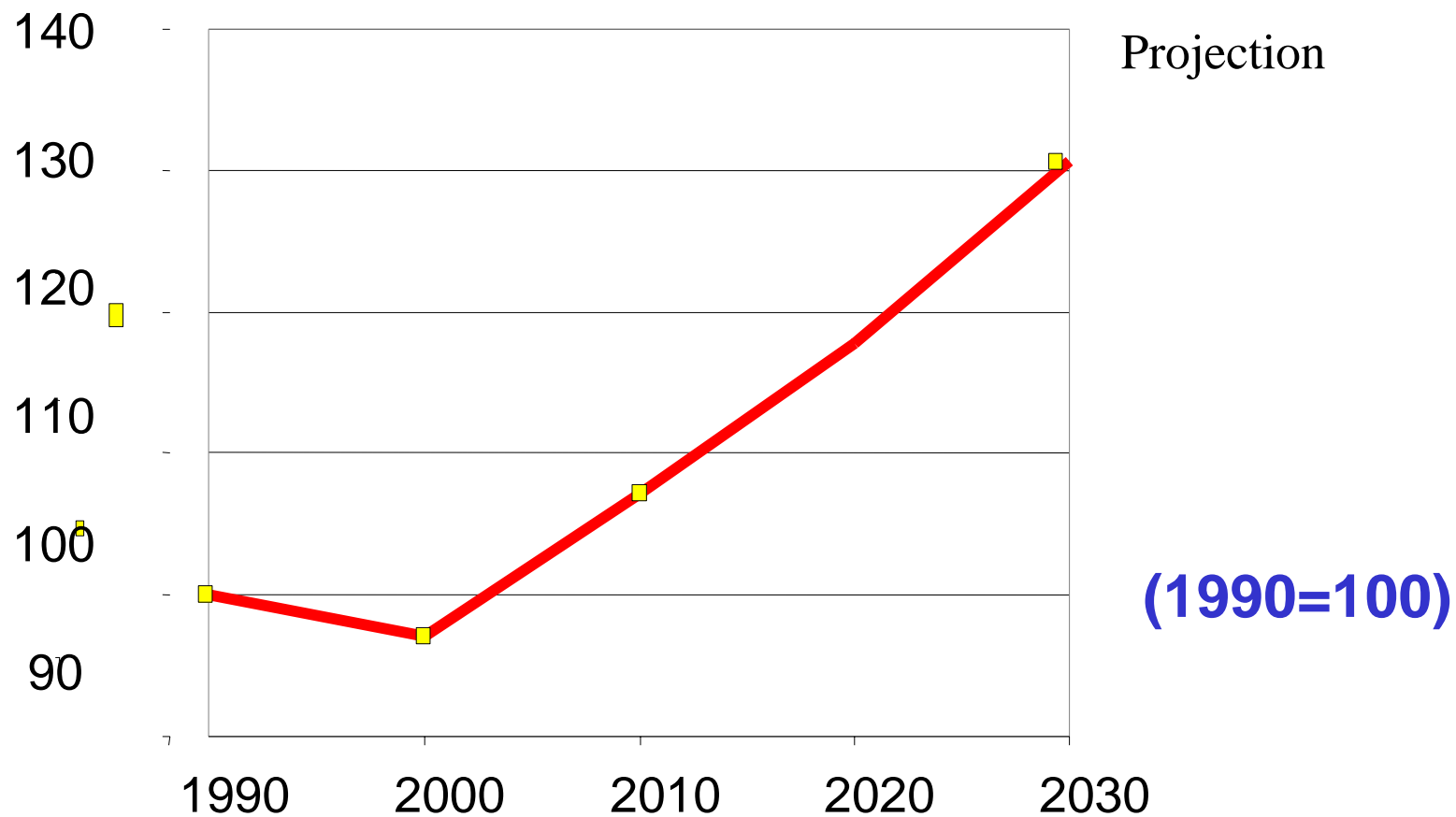
A new reference framework (1)

The challenge of climate change: new issues

- There is an **urgent** need to combat climate change
- The Commission is committed to reduce its greenhouse gases by **8%** as compared with 1990
- **94%** of the CO₂ arising from human activities in Europe can be attributed to the **energy sector**



Europe-30: energy-linked CO2 emissions



A new reference framework (2)

The challenge of climate change: unsuitable responses

Fiscal disorder

- Inability of taxation to meet the transport and energy policy aims
- Need to abandon the unanimity rule

The opaque nature of State aid

Need for an analysis relating to environmental matters, transport policy, energy policy and in particular the promotion of renewables

Ineffective demand management

- Action basically taken at national level
- Non-binding Community measures
- Little use of new technologies



A new reference framework (3)

The gradual integration of energy markets

Internal gas and electricity market

Internal market for oil products



The outline of a strategy

- **Stop the waste** (energy efficiency)
- **Find a truly alternative transport policy**
- **Development of new and renewable energies**
- **Maintain a relative autonomy** (analyse nuclear)
- **Find common solutions to common problems**
(acceleration of the Single Market)



Tomorrow's priorities:

A. Curbing the growth in demand by:

- **Completing the internal market**
- **Review of energy taxation**
- **Energy saving and diversification plans**
 - **plan containing target figures for 2010** put forward for the Stockholm European Council
 - will cover **transport** (aim: 20% as regards substitute fuels in 2020, development of clean vehicles, for example), and the **building industry**
- **Dissemination of new technologies**



Energy saving and diversification plans

Targets and Associated instruments (1)

Restoring the balance between transport modes: maintaining the modal proportions at their 1998 level in 2010

The revision of the common transport policy could examine ways of:

- revitalising rail transport
- improving road transport
- investing in infrastructures
- rationalising the use of conventional private cars in town and city centres
- promoting clean urban transport
- applying the polluter pays principle



Energy saving and diversification plans

Targets and Associated instruments (2)

Major energy savings in buildings

- Mandatory introduction of **energy saving thresholds** in buildings
- **Incorporating the renewable energy sources** in new buildings



Tomorrow's priorities:

B. Managing the dependence on supply by:

Development of less polluting energy sources

New and renewable forms of energy are the first options for action in relation to security of supply, the environment and rural populations

Maintaining access to resources

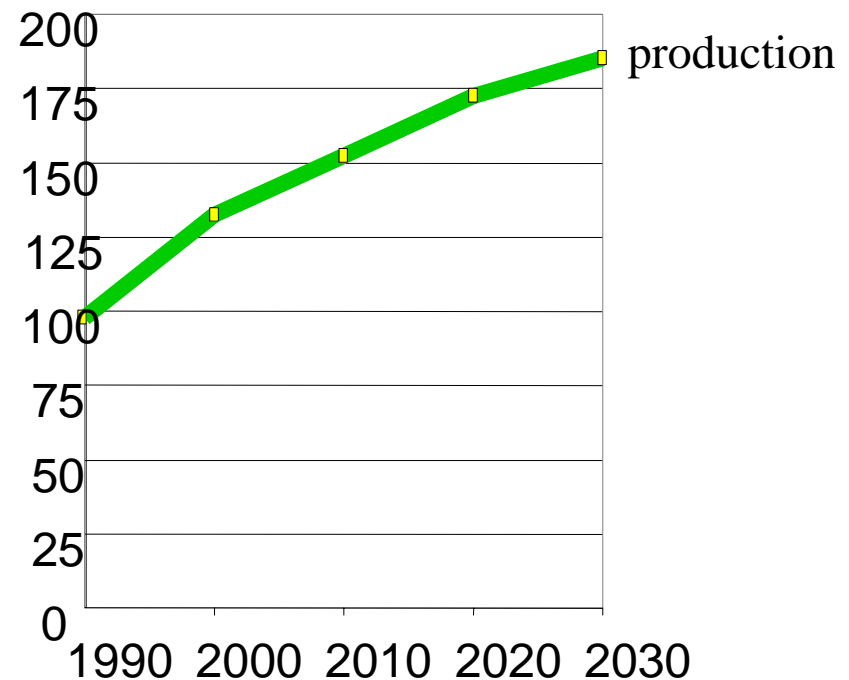
Ensuring external supplies



New and renewable energy sources: a political priority

- Renewables offer a potential to be exploited
- EU target: 12% of total energy consumption in 2010
- They have differing growth prospects
- Their takeoff assumes that financial or tax incentives will be provided

*Europe-30: renewables
(reference scenario in mtoe)*



Development of less polluting energy sources

Targets and Associated instruments

Target : 12% of energy consumption in 2010

mobilising support for renewables

Renewable do not have the same development facilities that other sectors had.

Aid for RES is justified on the grounds that conventional energies do not contribute much towards the external cost they entail.

RES could be financed by temporary levies on a share of the profits of other conventional operators in the energy sector



Where to find the document

*The Green paper document can be downloaded
from the following web address*

http://europa.eu.int/comm/energy_transport/en/lpi_lv_en.html

