

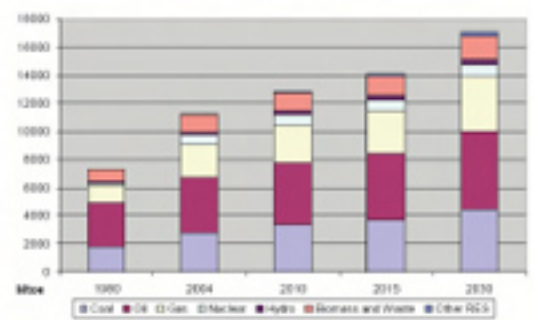


Energy needs



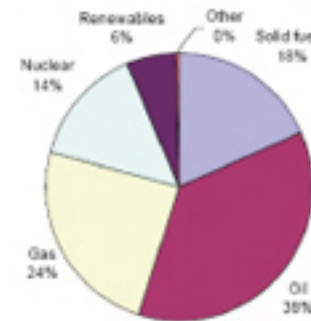
- Energy is a vital part of our daily lives and we rely upon a secure and sufficient supply of it. *Graph A*
- Oil and gas prices have doubled over the past three years, with electricity prices following.
- Today our energy demand is mainly satisfied by fossil fuels (oil, coal and natural gas) - 80% of the total energy consumption. *Graph B*
- Imported fossil fuels now provide about 50% of the EU's energy needs but by 2030 this is expected to increase to about 70%. *Graph C*
- Energy is the main factor in climate change, accounting for some 80% of EU's greenhouse gas emissions. *Graph D*

A. WORLD PRIMARY ENERGY DEMAND 1980-2030

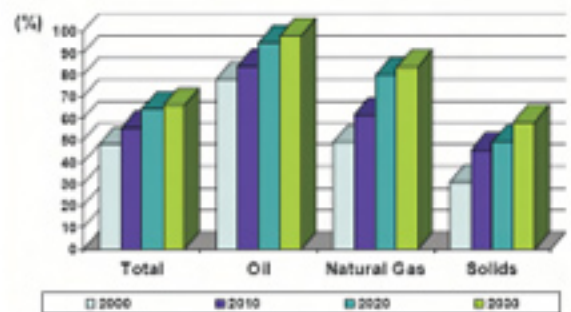


Source: IEA 2006, OECD-IEA 2006

B. EU-27 TOTAL PRIMARY ENERGY SUPPLY (2004)

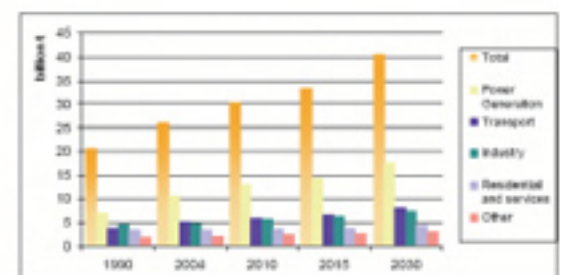


C. EU-27 DEVELOPMENT OF IMPORT DEPENDENCE UP TO 2030



Source: European Commission DG TREN, PRIDES

D. WORLD ENERGY-RELATED CO₂ EMISSIONS BY SECTOR



Source: IEA 2006, OECD-IEA 2006

An energy policy for Europe

- During the 2007 Spring European Council, EU governments adopted an energy policy for Europe.
- This policy aims to boost competitiveness and security of supply while also saving energy and promoting climate-friendly energy sources.
- EU leaders set a firm target of cutting 20% of the EU's greenhouse gas emissions by 2020.

Fusion in the Energy Mix

- European researchers are developing a range of environmentally acceptable, safe and sustainable energy technologies.
- In the long term, fusion is a potential option for a large scale energy source that has a low impact on the environment and is safe, with vast and widely distributed fuel reserves.