Energy in Europe –
the role of coal

Committee on Industry, Research and Energy (ITRE)

9 November 2010

Nigel Yaxley
– Chairman EURACOAL Market Committee
– Managing Director, Coallmp
Overview

- Is coal a fuel of the future?
- Can coal be clean?
- Does Europe need coal?
Coal reserves are super abundant

- 997 billion tonnes or 144 years.
- Distributed in many countries.

North Antelope Rochelle Mine, Wyoming, USA: 98.3 Mt annual production

Developing countries will rely on coal to build their economies.

source: Bundesanstalt für Geowissenschaften und Rohstoffe (BGR), 2010
photo courtesy of Peabody Energy, St. Louis, MO, USA
Fuel sources for electricity generation, 2008

World: 20 181 TWh

EU-27: 3 341 TWh (16.6%)

- Coal: 41.0%
- Nuclear: 28.1%
- Gas: 14.5%
- Oil: 11.0%
- Hydro: 10.8%
- Other: 6.7%

sources: IEA Key World Energy Statistics 2010 and IEA databases (© OECD/IEA, 2010)
Coal in China and EU-27, 1990-2009

Tong Mei Datang Tashan coal mine: 15 Mt annual production

China joins WTO

source: IEA Coal Information 2010 (© OECD/IEA, 2010)
Major advantages of coal in the EU

▪ The EU’s main indigenous energy resource: almost 80% of EU-27 domestic fossil fuel reserves.

▪ Hard coal and/or lignite are available in many EU Member States.

▪ Coal balances the EU energy mix and avoids security of supply and price risks.

▪ Coal mining and value chain create wealth in the EU, particularly in a number of disadvantaged regions.

▪ The coal industry employs around 280,000 people.
Coal mining in Bulgaria – a 60-year plan

24 Mt annual production (33% of electricity)

photo and map courtesy of Mini Maritsa-Iztok EAD, Radnevo, Bulgaria
Modernisation and CO₂ capture & storage (CCS)

Continuous power plant modernisation and new CCS-ready plants.

average CO₂ emissions per unit of electricity generated at coal-fired power plants (g/kWh)

world
EU
state-of-the-art
700°C
Nordjyllandsværket, Denmark

source: VGB PowerTech e.V.
photo courtesy of Vattenfall.
Conclusions

- Is coal a fuel of the future?
  - Yes: coal is the world’s fastest-growing source of primary energy and the No.1 fuel for power generation.

- Can coal be clean?
  - Yes: coal is safe, reliable, affordable and becoming ever-more sustainable. Low CO₂ emissions can be achieved with CCS.

- Does Europe need coal?

Coal is an important part of a balanced energy mix.
Thank you!

Nigel YAXLEY
Managing Director
Coallmp – Association of UK Coal Importers
info@coalimp.org.uk
www.coalimp.org.uk