

EURACOAL

European Association
for Coal and Lignite



Coal in European Power Policy

September 13th, 2006

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Secretary-General

Analysis – The wonderful 90's

- The fall of the Iron Curtain, European unification and victory in the Gulf War white-washed geopolitical risks
- Over-capacities in oil, gas and coal blurred the view of unequal distribution and limitation of natural resources
- Rock-bottom prices reduced investment among producers and aroused false expectations among customers
- Overestimated contribution of renewables in short and midium-term
- Coal and Nuclear, the unloved – EU Green Paper 2000
- Tendency to misinterpret energy policy as an extended arm of climate policy

Conclusion: Too much wishful thinking. Insufficient risk assessment calls for a broad approach.

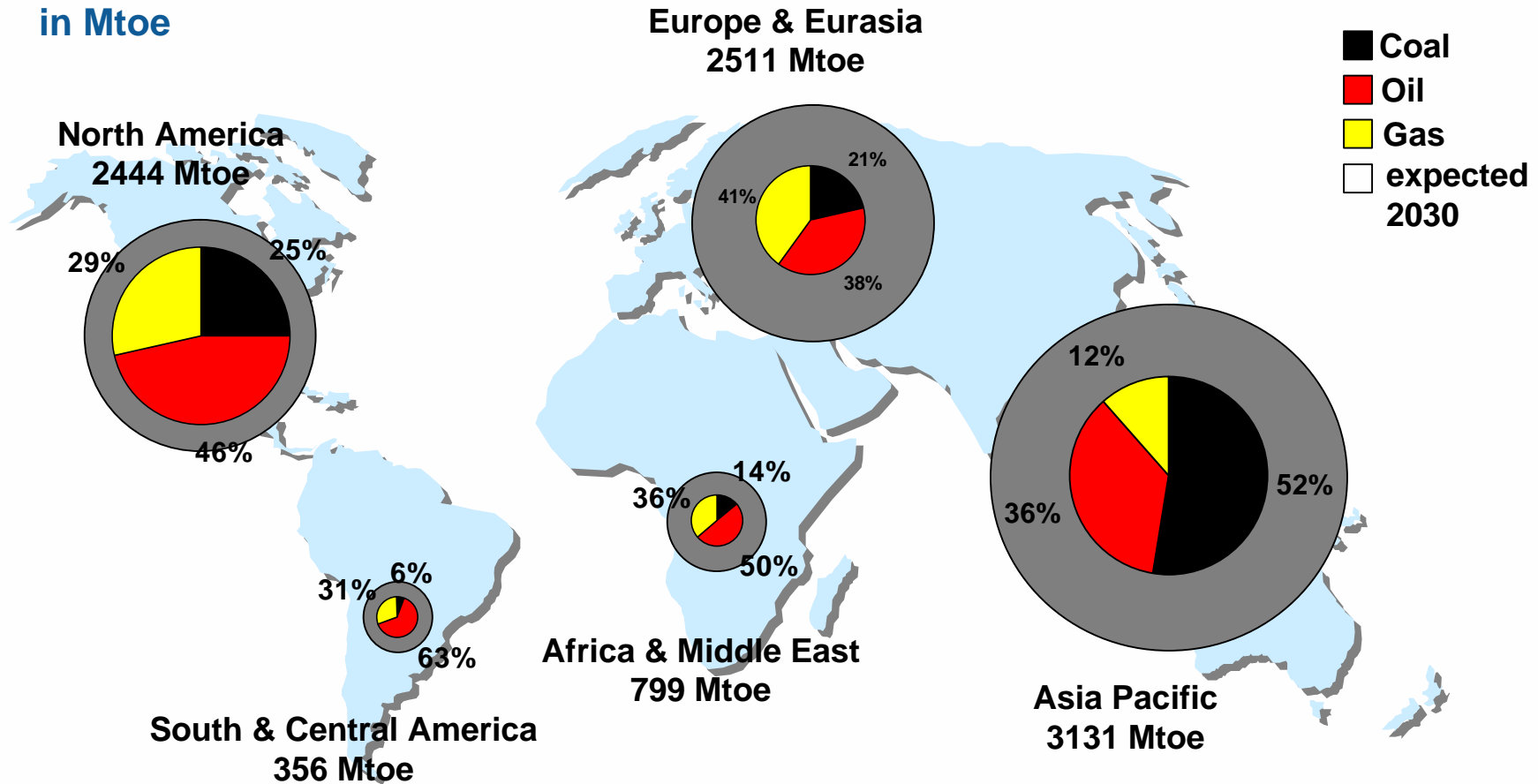
Lessons learned since 2000

- Accelerating growth of demand especially in the developing world
- Sky-rocketing oil and gas prices → the cartel is working well again
- 9/11/2001 – the threat of terror
- Realistic evaluation of contribution of renewables up to 2020
- The China-Syndrome, a new look at resources and availability
- Fossil fuels will be the backbone of the energy system in the decades to come

Conclusion: There is need to reassess energy policies

Coal is a key part of the world's energy mix – and growing

in Mtoe



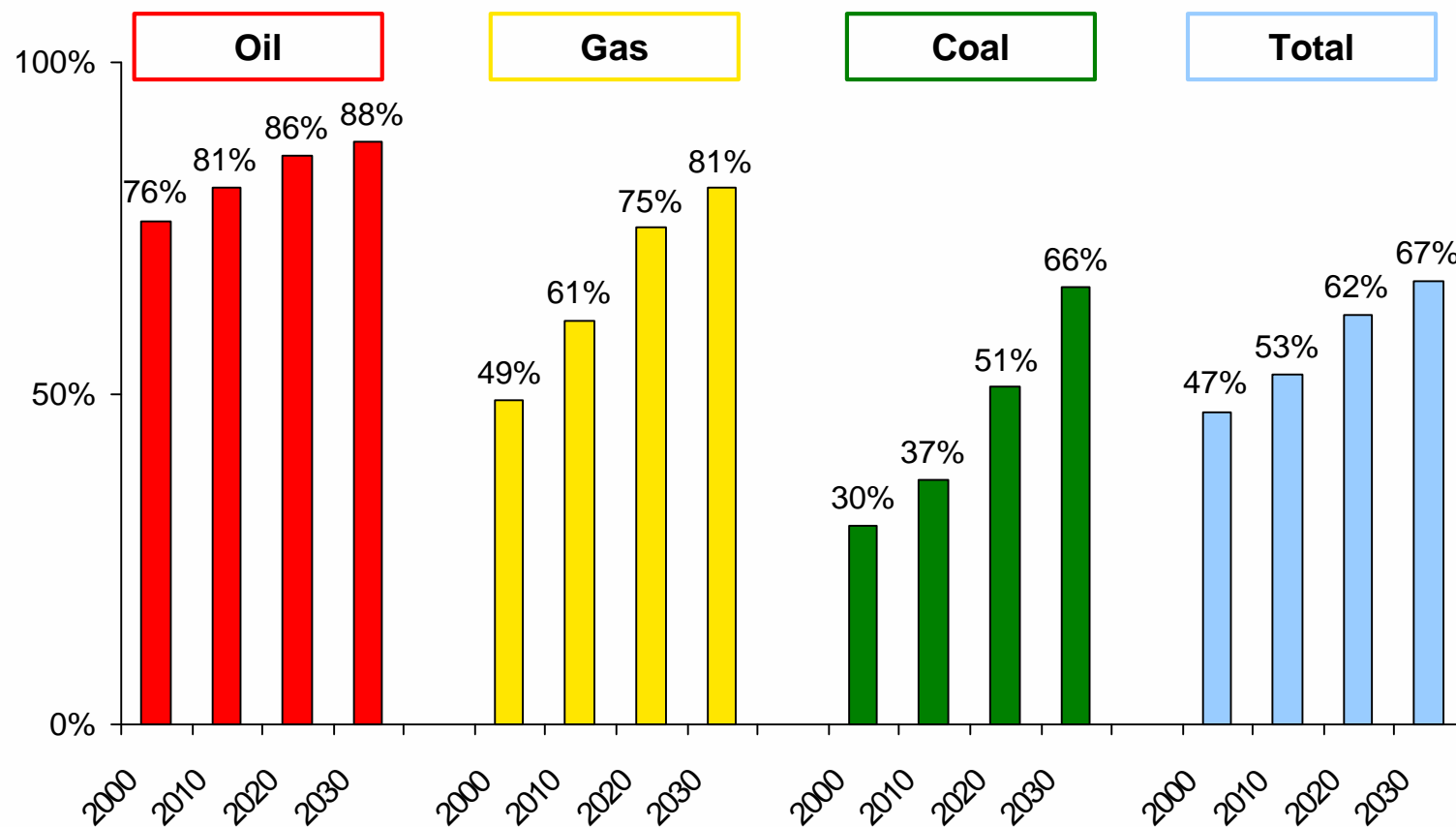
Source: BP – 2005, EU Commission

Primary Energy Consumption of Fossil Fuels – 2005 to 2030

Most, 13th September 2006

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Dependence on Energy Imports of EU 25 will Increase



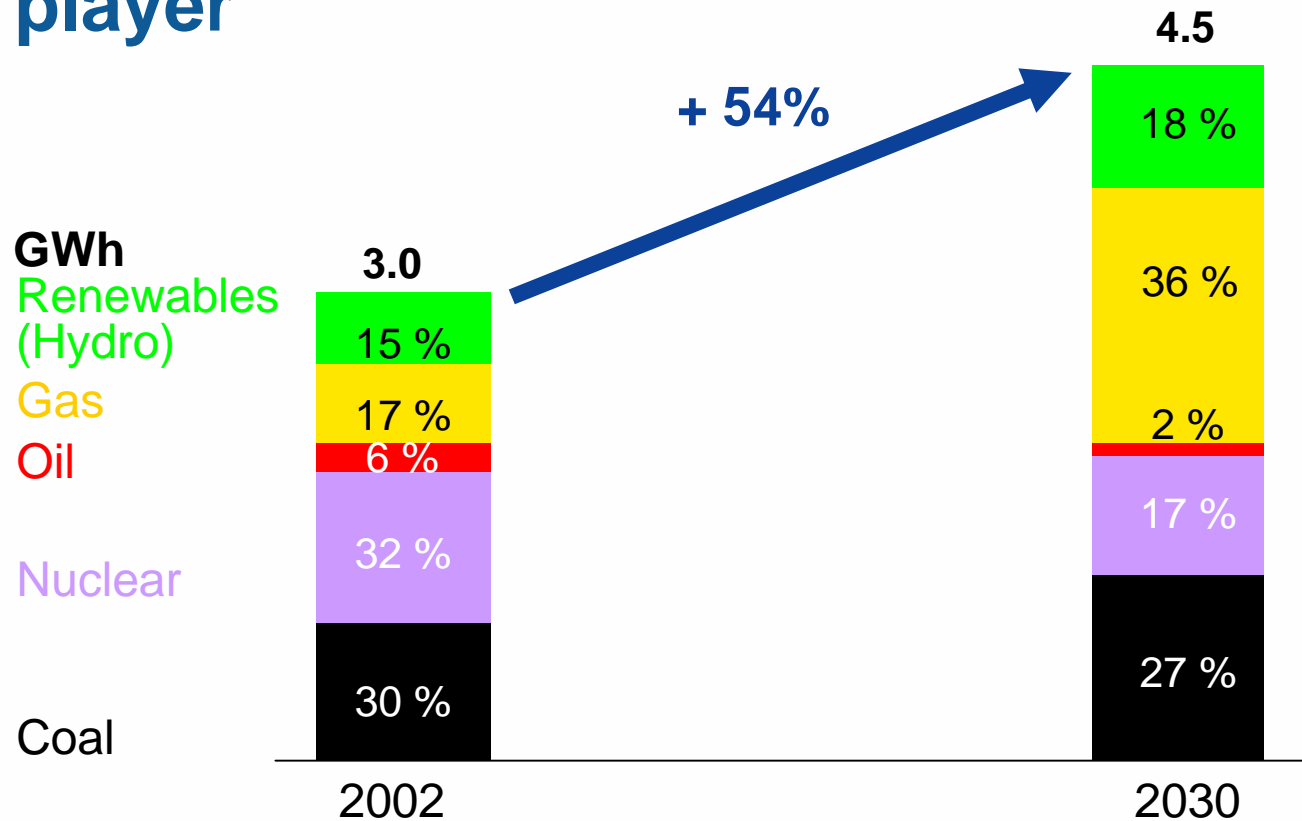
Source: European Commission

Use of domestic coal reduces import dependence.

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Power requirements of the Enlarged Europe will increase with coal remaining a major player



Source: EU Commission, Trend to 2030

Green Paper

A European Strategy for Sustainable, Competitive and Secure Energy

Positives:

- **Security of supply and competitiveness (more in the centre of discussions)**
- **Regular strategic EU Energy Review including coal**
- **Clear message that the Member States are responsible for their energy mix**
- **End of over-estimation of gas**
- **Backing of Carbon Capture and Storage.**

Green Paper

A European Strategy for Sustainable, Competitive and Secure Energy

Negatives:

- **Necessity of coal in the long-term energy mix not explicitly acknowledged**
- **Important role of coal in some Member States not considered**
- **Efficiency improvement not considered as the best strategy in the midium-term to secure coal production and use in EU-25; the role of coal narrowed to near zero emission power plant**
- **Renewables still over-estimated: no job machine; comparison of wind and coal capacities not possible**
- **ET Scheme: its role for Europe's competitiveness is not dealt with.**

Commission and EURACOAL Contacts

- Coal Dialogue - a joint Commission and EURACOAL event on an annual basis
- WG Coal within the Fossil Fuels Forum
- Regular meetings on specific issues

Follow-Up of the Green Paper

Activities relevant for Coal

- Strategic Energy Review; first issue to be adopted by the Commission in January 2007
- Communication on Sustainable Coal
- 7th Framework Programme on R&D – first projects to be identified in the near future
- No White Paper

The Clean Coal Concept

Clean Coal I

Retrofitting & new state-of-the-art constructions
Improved efficiency
Reducing SO₂, NO_x and dust

Clean Coal II

Research & Development
Increasing efficiency to > 50 %

Clean Coal III

CO₂ Capture and Storage
by 2020

Investment in the most up-to-date technology.

Coal in Europe – Secure, Economic, Sustainable and Part of the Solution

- EU Clean Air Policy already very successful
- CCS is a promising technology route, an upgrade to the commercial scale is the challenge
- Realistic timeframes required – it is likely to take 15 to 20 years before the vision of deployment on a commercial scale can come true
- Common efforts of industry, politicians and authorities indispensable.

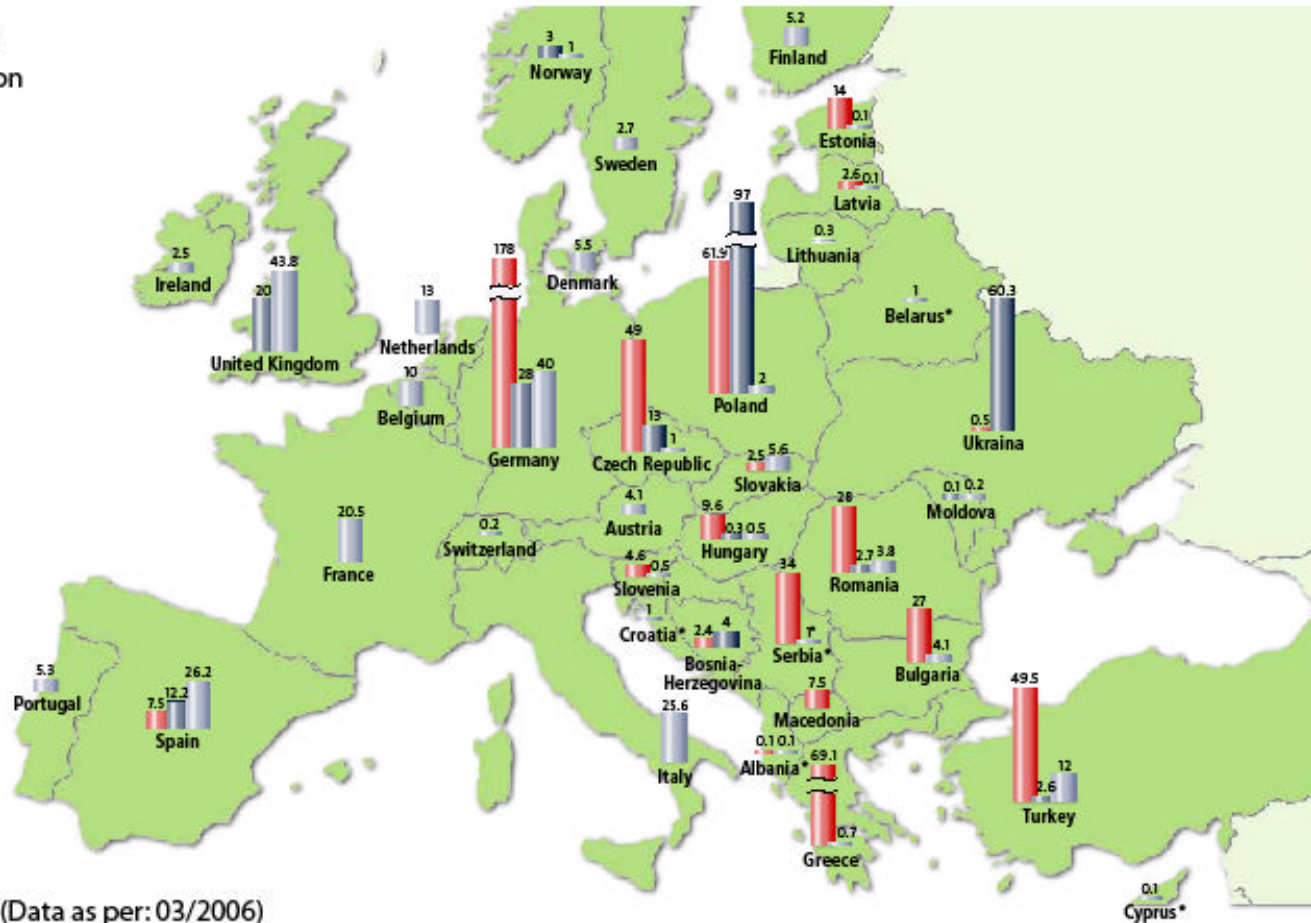
Technology and Improved Efficiency

- Using energy more efficiently – end users and energy producers such as power plants – can significantly reduce emissions per MWh
- Can contribute significantly to combat climate challenges; this is considered to be possible much earlier than by using Carbon Capture and Storage
- An efficiency of more than 50 % in coal-fired power plants still needs research and development
- Has to be done before full deployment of Carbon Capture and Storage due to the CCS-efficiency penalty
- Can be used to help developing countries
- A positive investment climate is necessary, particularly in an Emissions Trading Scheme. Rules must be conducive to investment and therefore consistent for a very long time.

Coal in Europe

Lignite production, hard coal production and imports in Mt in 2005

- Lignite production
- Hard coal production
- Hard coal imports



provisional / forecast (Data as per: 03/2006)
*2003/2004

Specific advantages of domestic coal

- The use of domestic coal deposits reduces import dependence, thereby increasing security of energy supply.
- Regional prosperity and employment are created; a 500 MW power station operating 7000 h/p.a. and selling electricity for 40 €/MWh anchors 3 bn. € in the region within 20 years. With indigenous coal, the added value remains in the region.
- The additional economic prosperity enables the regions to develop their economic structure without any disruptions, but with a long term vision.

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