EUROPEAN COMMISSION
DIRECTORATE-GENERAL FOR ENERGY AND TRANSPORT
DIRECTORATE C - Conventional Energies
Coal and oil

EURACOAL
European Association for Coal and Lignite

FIRST COAL DIALOGUE

5th OCTOBER 2004
in Brussels

Introduction

Coal can contribute significantly to security of energy supply

On the occasion of the first Coal Dialogue, the president of the European Association for Coal and Lignite, Dietrich Böcker, proclaimed that Europe was the third biggest coal consumer in the World after China and the USA, with a coal consumption of more than one billion tons per year. About half of this coal comes from indigenous production. Coal is therefore indispensable for secure and price-competitive energy supply in Europe. Coal played a central role, especially in power generation, added Helmut Schmitt von Sydow, Director for conventional sources of energy in DG TREN from the European Commission.

For the president of EURACOAL, this first coal dialogue showed the willingness of Commission and Parliament to define key issues for coal together with representatives from the industry. These issues will have to take into account the specific "energy needs, as well as those concerning the market and environmental protection". Some 100 representatives from the European Commission, the Parliament, national coal experts from the Member States, and members of EURACOAL participated in this first Coal Dialogue. The targets of EURACOAL are to enhance the role of coal in the European energy mix and to contribute to the security of energy supply. Therefore, EURACOAL wants to participate actively in an open dialogue, to define the framework conditions for European energy policy.

President Böcker demonstrated the important role of coal in Europe with chosen examples from Germany, Poland, Greece and the UK. The basis of a common coal policy must be a balanced energy mix, the market orientation of energy policy, the promotion of new technologies as well as environmental and climate protection. During the final round table Jerzy Buzek (MEP, and former prime minister of Poland), Helmut Schmitt von Sydow (European Commission, DG TREN) and Nigel Yaxley (Vice-president of EURACOAL) discussed the main questions for coal, where clean coal technology was a key-word for environmental protection and technology innovation. The strength of coal is that it can be safely and economically converted into electricity. Nevertheless, coal will only be able to fulfil this function in future, if there is a reliable framework for investment decisions.

EURACOAL is grateful to the Commission for the organisation of this Coal Dialogue, which will be held once a year and has enabled an effective platform for discussion

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THE ROLE OF SOLID FUELS IN A STRATEGY OF ENERGY SUPPLY SECURITY

Ioannis Galanis
Deputy Head of Unit
Coal and Oil, Dg Tren

Consultation Document Content

- Energy geopolitics : towards a global approach to energy supply and technology
- Solid Fuels in the European Union and in the World
- Towards a fossil fuel carbon management strategy

Towards a Global Approach to Energy Supply

- World dimension: climat, energy market
- Primary fuel sources: oil, gas and coal
- EU Energy imports: from 50% to 70% : Relevance of security of supply for energy
- International market for coal: abundance, diversification, price stability
- Coal / Nuclear: environmental pressure but, if both reduced, could generate economic tensions and threaten supply

Towards a Global Approach to Technology

- Clean Coal Technologies: are available for reducing emissions of SO2 and NOx and of CO2 through higher efficiency, but need to be disseminated.
- Integrated Energy Systems: need to be devolopped for using coal for producing Hydrogen and Electr. or Liquid Fuel, with CO2 Capture and Storage
- International cooperation needed for both.

Solid Fuels in the European Union: Market

- Annual report published by Commission:
  - Stable market, decline prod., increas. imports
- Data for the year 2000 (EU 25):
  - Hard coal : 228 Mtoe (123 Mtep imported)
  - Lignite : 82 Mtoe
  - Peat : 1.4 Mtoe
  - Oil Shale : 2.7 Mtoe
  - Total : 331 Mtoe (19 % prim. en.)
- Baseline senario to 2030: decline -recover

Solid Fuels in the European Union: Production Trend

- Data for the year 2000 (EU 25):
  - Hard coal : 120 Mtoe (7.3 % prim. en.)
  - Lignite : 80 Mtoe (4.9 % prim. en.)
  - Peat : 2.3 Mtoe (0.14 % prim. en.)
  - Oil Shale : 2.7 Mtoe (0.15 % prim. en.)
  - Total : 204 Mtoe (12 % prim. en.)
- Baseline senario to 2030: production in the EU to continue to decrease.

Solid Fuels in the European Union: Competitivity of EU Production

- Production of Lignite, Peat and Oil shale:
  - competitive, in general.
- Production of Coal:
  - Restructuring since the mid-1960's
  - Lack of competitivity (Green Paper 2000)
  - EU framework permitting state aids for: social, regional and maintaining acces to coal reserves (Council Regulation 1407/2002)
  - Member States to notify plans in 2004.

Solid Fuels in the European Union: Environmental Constraints

- Operation and abandonment of mines: Directives on environmental impact assessment, participation of the public in plans and programmes, protection of ground water, conservation of natural habitats.
- Consumption of solid fuels: Directives on emissions from large combustion plants, trading of greenhouse gas emission allowance
- Substantial research programmes (ECSC, RTD) for making available new technical solutions

Solid Fuels in the European Union: Electricity Generation

- Electricity from solid fuels: 30% in EU 25 (10% EU coal and 11% lignite/other)
- Baseline senario to 2030:
  - Electricity production : Increasing by 44%
  - New electricity capacity needed : 300 GW (750 large plants, investment 250 billion Euro)
  - Generation from solid fuels : decline - recover

Solid Fuels in the European Union: Combustion Plants

- Disadvantages of existing solid fuel power plants:
  - 60 % of capacity is older than 30 years
  - Low efficiency (38% in EU 15, 33% in EU 10)
- Advantages of new generation of solid fuel power plants, using available technology:
  - Improved efficiency (from 43% to 47%)
  - Reduced related fuel consumption and CO2 emissions by 20 to 30 %.

Solid Fuels in the European Union: Policy and Energy Mix in the MS

- MS have possibility to intervene (Directive IEM):
  - Energy efficiency and security of supply
  - Environmental and climate protection
  - Promotion of infant new technologies
  - Electricity from indigenous fuels (max15%)
- MS may introduce compatible mechanisms to promote the clean use of solid fuels:
  - Support to Research and Development,
  - Favorable Taxation,
  - Linking with the EU system for trading emission allowances

Solid Fuels in the World: The global coal market (data 2000)

- Data for the year 2000:
  - Solid fuel prod. : 2330 Mtoe (4650 Mton)
  - For electricity : 1560 Mtoe (66 %)
  - International market : 600 Mton (Atlantic region 170 – Pacific region 240
- Caracteristics of international coal market: Open, transparent, competitive (coal to coal), flexible production
- Prices: increasing since Sept 2003 (China)

Solid Fuels in the World: The environmental constraints

- Two international conventions:
  - The convention of the United Nations on transboundary air pollution.
  - The United Nations framework Convention on climat change, on the basis on which the Kyoto protocole was agreed.
- European know-how is available:
  - on environmental protection and safety and hygiene in the coal indudtry
  - for transfer to third counties.

Solid Fuels in the World: Prospects for the use of coal

- Base line senario to 2030 : 90 % growth, mainly in China and India
- 2.1% annual growth for coal, with the associated increase of CO2 production
- Use increasingly concentrated in electricity
- But with a low conversion efficiency
- Transfer of cleaner coal technologies for power plants has a significant potential.

Solid Fuels in the World: Technology transfer

- Clean coal technologies should be introduced on a large scale in the world.
- Priority should be given to technical cooperation with third countries.
- Clean coal technology is a priority in:
  - The EU – Russia Dialogue
  - The Energy Cooperation with China
- China and India have major invest. plans.

Towards a Fossil Fuel Carbon Management Strategy

- Activities of the Member States (DE, UK)
- RTD in the European Union (in FP6 , preparation FP7, Research Fund)
- European Growth Initiative (Hypogen)
- International Cooperation: Commission and several MS are in:
  - Carbon Sequestration Leadership Forum
  - International partenership for HY Economy.

Conclusions

- Conclusions on the substance will be drawn after the consultation process
- Two major challanges for coal, in order to play his role in the security of energy supply.
- First challange is to continue to increase the energy efficiency of the power plants, in order to reduce the primary energy use and the related emissions.
- Second challange is to manage CO2 Emissions, in order to protect the global environment.
- THANK YOU.

EURACOAL
European Association for Coal and Lignite

Coal in the European Electricity Market

- Tasks, Chances, Risks -

Dr.-Ing. Dietrich Böcker
President EURACOAL

I would like to express my thanks to the Commission, to Mr Schmitt von Sydow and to his colleagues at the Directorate-General for Transport and Energy for having made possible this first Coal Dialogue with EURACOAL.

We believe that Europe is facing an immense challenge in the area of energy supply. There are many questions still unanswered, but the solutions are there to be found.

EURACOAL's Targets

22 associations of the coal industry and big producers of coal from 14 countries

Targets

- Securing coal's position in the European energy mix through appropriate regulations
- Cooperating in achieving equilibrium between
  - energy policy requirements,
  - market, and
  - environmental policy initiatives
- Discussion partner for commission, parliament and council

Brussels, 5th October 2004, Transparency 1

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1. EURACOAL represents 22 national coal-industry associations and 14 major coal producers.
The Association's objective is to safeguard the role of coal in the European energy mix by participating in the creation of favourable political conditions.
We wish to cooperate with the European institutions in order to safeguard the future of coal – which is in turn dependent on "energy policy, the energy market and environmental security".

Coal in the European Electricity Market

- World and European energy trends
- Tasks, chances and risks facing the coal industry
- Conclusions

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2. My presentation will focus on two major themes.
First I would like to discuss international trends and developments in the European energy market.
I then want to examine the challenges, opportunities and risks facing the European coal industry, and will demonstrate this by means of selected examples.
I will then draw a number of conclusions.

Electricity is not the only issue, ...

... but nothing will work without energy.

This is Times Square by torchlight

Brussels, 5th October 2004, Transparency 3

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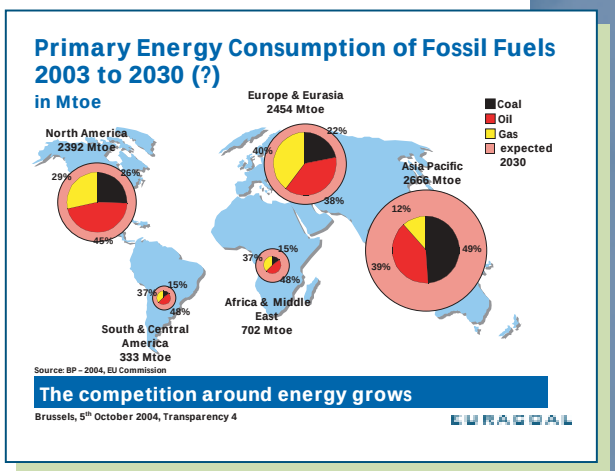
3. Any discussion of coal will mainly be about the power industry. Although coke and solid fuels in general are also an important part of EURACOAL's activities, this is too broad a theme to be included in today's presentation.

4. North America, Europe and the Far East are currently the world's biggest power consumers.

It is clear that:

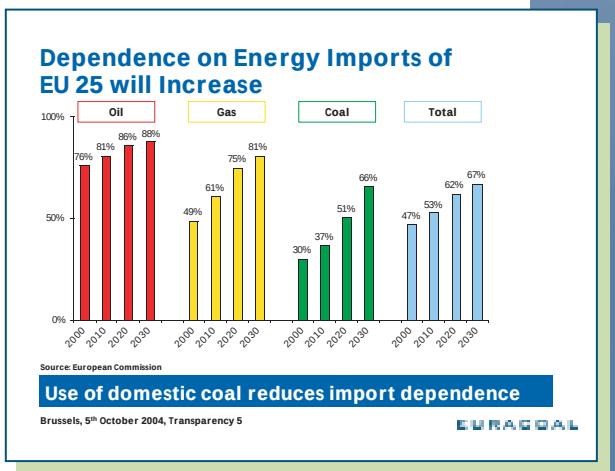
1. Europe is becoming increasingly dependent on oil and gas imports
2. Energy consumption in Asia is growing at a considerable pace.

There has to date been no signs of an energy shortage on the world market. The question is – are the present energy price rises harbingers of a global energy shortage? What will happen if the needs of the power industry become totally dependent on gas as a result of Europe losing confidence in coal and nuclear energy?



5. Europe does not have a wealth of natural resources and our dependence on imports is set to increase further – a view shared by the European Commission and many other bodies.

Europe's dependence on imported coal will also rise considerably. Indigenous European coal production has a vital role to play in limiting this reliance on imported fuel. In the power generation sector the Commission has initiated an early discussion of the future of coal and nuclear energy. Although these energy sources play a very important role as far as power generation is concerned, they have at the same time become "unfashionable fuels".

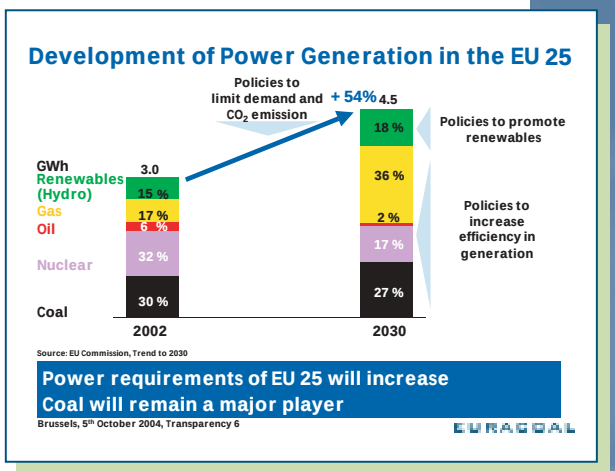


6. Under the "Lisbon Strategy" Europe has set itself a number of targets in order to create a competitive and dynamic economic area.

The slide shows the energy demand for 2030 as formulated by the European Commission in the year 2003. It is difficult to say whether power consumption will increase by 30% or indeed by 50%. We only know one thing for sure: Europe currently needs a lot of power and tomorrow it will need even more.

While Europe's policy of reducing the EU's growing power requirements by increasing efficiency is surely the correct one, it still fails to provide a solution to the problem of how this demand will be met in the years to come.

The same applies to the policy for CO2 reduction: the approach is correct, but no answers are given.

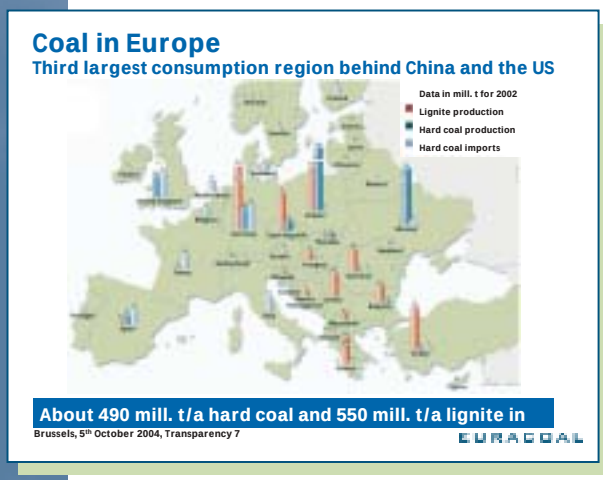


All Member States are keen to increase their share of power generation from renewables.

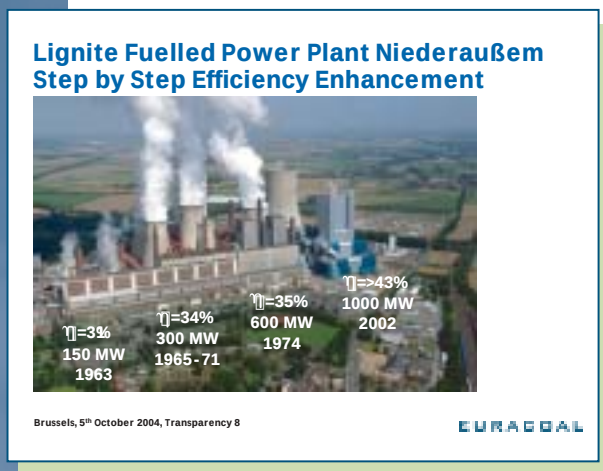
This input, which amounted to some 15% in 2003, is based largely on hydro energy – which presently accounts for 80% of the total. It will be difficult to achieve any further increase from this particular source. Enormous efforts will be required to increase the input from renewables to 21%, as EU targets show. New technologies are not yet competitive and it will prove very difficult and extremely expensive to reach this goal.

However, a contribution of 21% by the renewable energies in 2010 does not fully answer the question, for what about the remaining 79%? The problem would be the same even if we were talking about a greater input from renewables in 2020 or 2030.

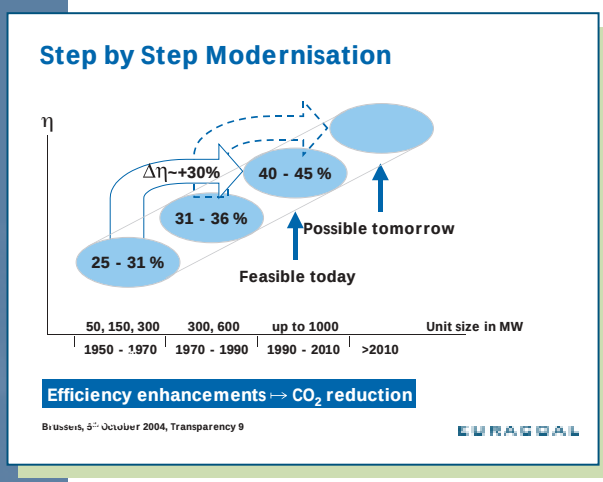
There will always be a gap – and this gap will vary depending on the supply and availability parameters affecting the coal and nuclear industries. Colouring this gap yellow and naming it "gas" is certainly far too simplistic an approach. This area of uncertainty is coal's opportunity.



7. Europe has access to enormous coal deposits and many of the coastal regions have well-developed infrastructures capable of importing coal very efficiently: Europe is a major coal producer and coal consumer. In 2002 the continent of Europe consumed some 490 million tonnes of hard coal, half of which came from indigenous production. Lignite output was around 550 million tonnes.
Conclusion number one: we need coal. There is no disputing this fact. However, we also need to create a European internal market and raise our awareness of the importance of environmental protection. The answer is technology and investment, as can be illustrated by the examples below:

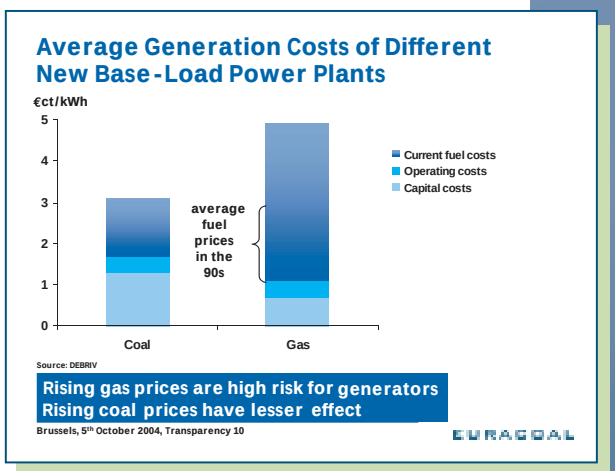


8. The slide shows Niederaussem power generating plant, which is situated in the coalfield of the lower Rhine basin. The plant has an installed capacity of approximately 3,800 MW. The different generating units were built between 1963 and 2002.
This is only one example, but the same situation also applies to many coal-fired power stations throughout Europe.
The Niederaussem installation was constructed in a series of stages and the plant was equipped with a desulphurisation system and completely overhauled during the 1980s and 1990s.
The smaller power plant generating units are gradually being re-placed by larger sets.

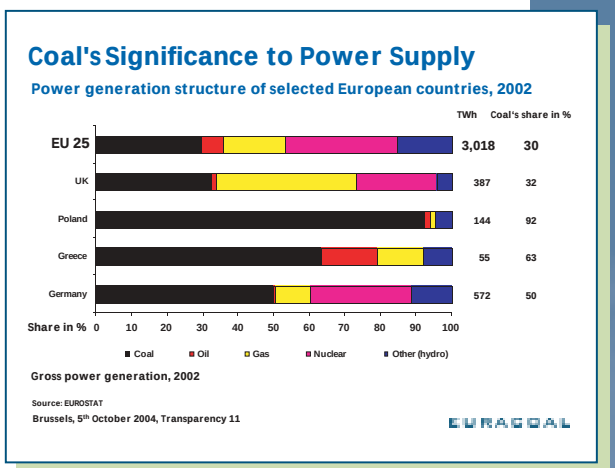


9. Increasing efficiency through modernization means more power for the same quantity of coal. This in turn will considerably reduce the emission levels, especially CO2.
Current technology must always be applied without considering the technological advances that may be available in the future, as such an approach will only delay construction.
Further improvements in coal-fired power generation technology are now under investigation. Efficiency levels of 45% are possible – and this will also mean a decrease in specific CO2 emissions. CO2 reduction is an important item on the coal technology agenda. A number of projects are aimed at even more ambitious reductions in CO2, for example through sequestration. This suggests that in the long term coal could become an almost CO2-free energy source and as such could operate alongside nuclear energy and renewables. However, this should not prevent us from seeking to improve current efficiency levels.

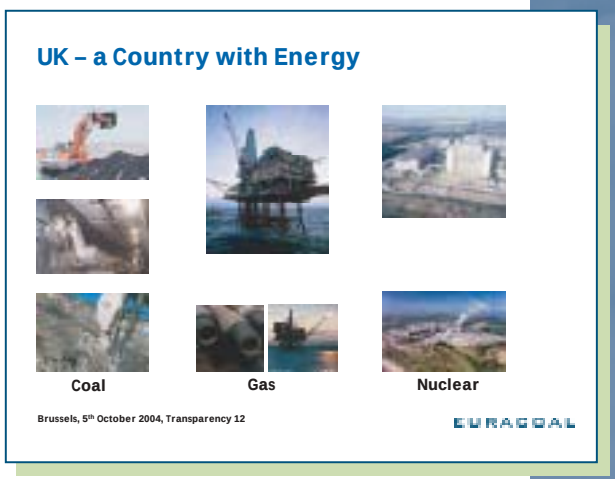
10. When examining the production costs of a coal-fired or nuclear power plant, on the one hand, and those of a gas-fired power plant, on the other, we see that coal-fired and nuclear installations are expensive to construct but their operating costs and primary-energy and generation costs are low.
In the case of gas-fired plants the picture is exactly the reverse: the investment and operating costs are fairly low, but fuel prices have a substantial impact on the installation's competitiveness.
A logical consequence of this technology-based difference would therefore be a rational division of labour: coal and nuclear power for the base load, coal for the mid-range loads and gas mainly for peak loads or for combined heat and power generation.
Coal and nuclear energy often act as price indicators for competitive energies in the power sector. In this way they constitute an important counterbalance, especially as far as the gas producers are concerned.
Such a strategy has served Europe well to date, and indeed the USA, Japan and China all apply a similar model for their power generation industry.



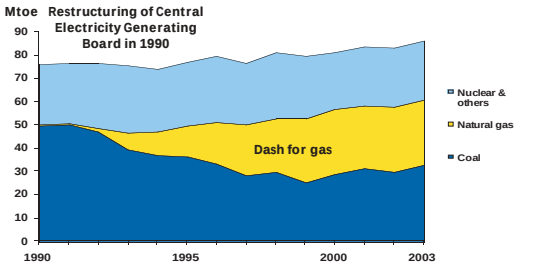
11. Coal, nuclear and hydro power plants form the backbone of the European power supply industry. However, the situation varies from one EU member state to the next. As it would be beyond the scope of the First Coal Dialogue to discuss all the issues and aspects concerned, I would like to focus on four examples in order to illustrate EURACOAL's appraisal of the situation and the actions that it considers necessary. The opinions expressed should not be interpreted as definitive but are merely intended to help initiate our debate.



12. In the early 1990s power generation in Britain was mainly based on coal and nuclear energy. The North Sea made the UK self-sufficient in energy; gas was cheap and abundant.



Fuel Input for Power Generation in UK 1990 to 2003



Source: EUROSTAT

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13. In 1990 the state-owned electricity industry was privatised to create several independent companies, including three power generators. Government and the regulator were keen to stimulate competition in power generation and established a market structure to encourage new entrants. With major generator assets in the hands of an oligopoly, this greater competition was achieved by the "dash for gas", where new players took advantage of low capital costs for construction and an abundant supply of cheap gas.

Few of the UK's many coal-fired power plants were modernised and many have closed. Flue-gas desulphurisation systems were only fitted to a small number of stations until the Labour Government of 1997 encouraged further retrofits. No new coal-fired installations have been built and coal has increasingly been used to meet peak-load demands, with Government predicting further replacement by gas capacity. But this background may be changing, even in Britain. The UK has become an energy importer, with oil and gas becoming increasingly expensive, and recent years have witnessed an upsurge in coal burn. This has given coal a new chance, although production capacity will be limited by the number of existing power plants and, more especially, by the lack of desulphurisation installations. The implementation of the Large Combustion Plant Directive is a major risk factor for coal as an energy source.

At the same time Britain is pursuing a very ambitious CO2 reduction policy - significantly ahead of Kyoto requirements. The National Allocation Plan has placed fewer CO2 emission certificates on the market than would be appropriate simply to meet the EU Burden Sharing target. This policy is specifically aimed at reducing the level of coal burn, but its impact may be to damage the UK economy and security of supply.

Poland – Europe´s No 1 in Coal

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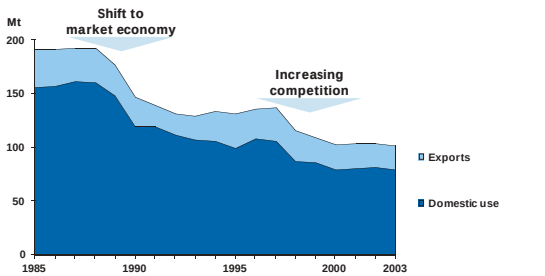
14. Poland has large deposits of hard coal and lignite and is the largest coal producer in the EU. The country was quick to begin adapting its energy policy in response to international price signals, although the coal and power sectors have still to be privatised.

Hard Coal Production in Poland



Source: Statistik der Kohlenwirtschaft

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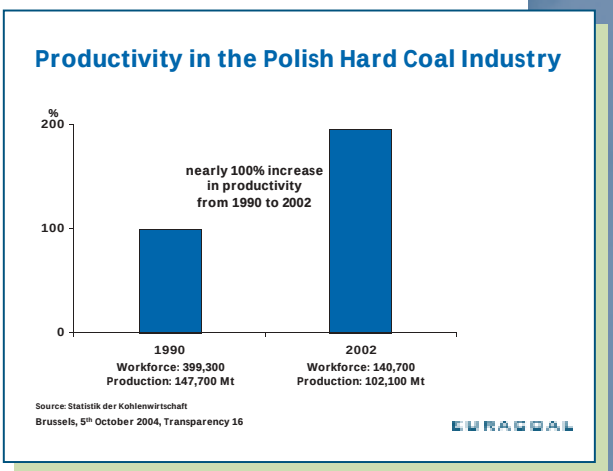
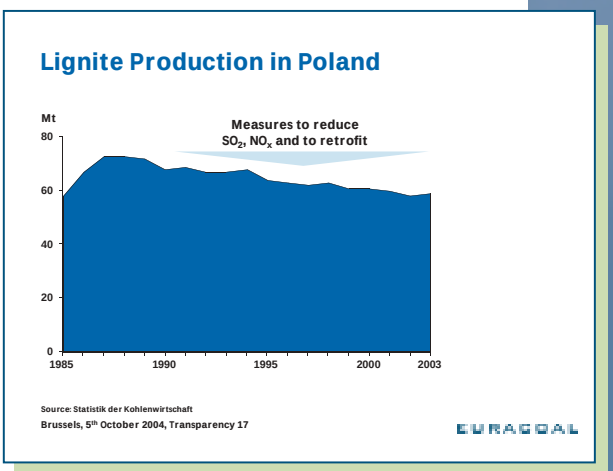
15. Most of Poland's hard coal is produced in Upper Silesia, with almost 190 million tonnes having been extracted some 15 years ago.

After 1990 production plummeted by 25%. This was followed by a relatively stable period, which was replaced by growing competition in the late 1990s. The country had to cope with sales and revenue losses and the resulting pressure to adapt to the new situation. This has generally proved to be a difficult process.

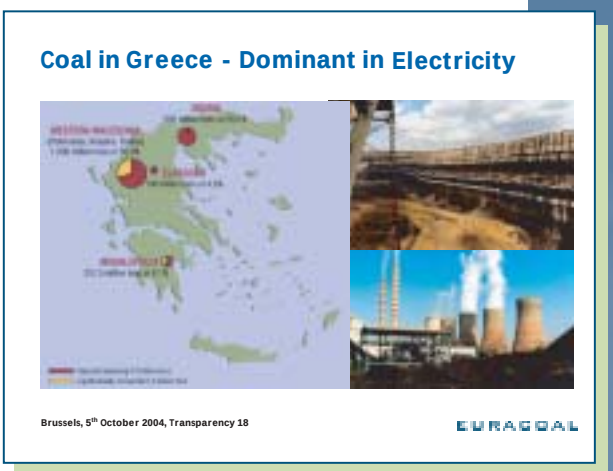
16. The main challenge has been how to cope with falling production combined with increasing productivity. The labour force has been cut by two-thirds since 1990, while production has risen by almost 100%. The Polish Government has been actively involved in this process.
Coal sales have recovered again over the past few years and, significantly, recent increases in the price of steam coal and, more especially, coking coal have contributed to a major change in the general results. Hard-coal output is expected to reach 100 million tonnes in 2004.
Economic recovery, and the future of the coal industry, will depend on further investment in the mines and also on greater investment in the power plant sector. The objective must be to maintain Poland's potential as a major hard-coal producer. In the light of the German experience this means that the burdens of the past must not be allowed to destroy the potential and the future opportunities open to the Polish hard-coal industry.



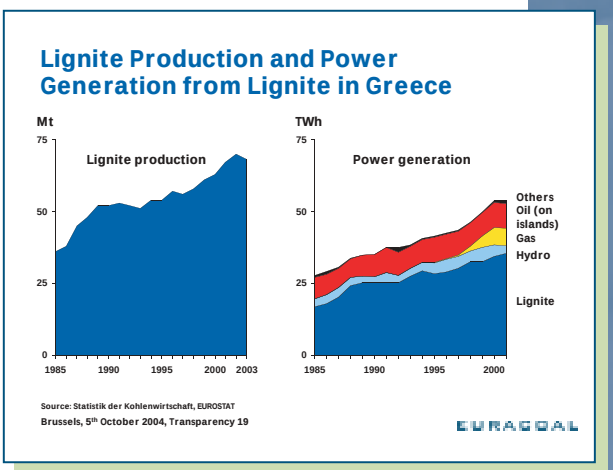
17. In the late 1980s lignite production in Poland expanded considerably with the opening up of the large and impressive Belchatow complex. Since the mid-1980s almost 40 % of Poland's electricity needs have been met by lignite, although the available capacity has not been used to its full extent since about 1990. This is due in part to SO2 and NOX emission reduction measures, which though necessary have still to be fully implemented, and the ongoing modernization programme, such as that being undertaken at Turow. Moreover, national energy policy has tended to make greater use of the country's hard coal capacity at the expense of lignite.
The future of the Polish coal sector, i.e. the prospects for both the hard coal and the lignite industries, will depend on the decisions of the Polish Government. This will dictate the structure and framework for the incorporation of the former state-owned companies and will determine the obligations and inherited liabilities that the latter will have to bear as they enter the European internal market.



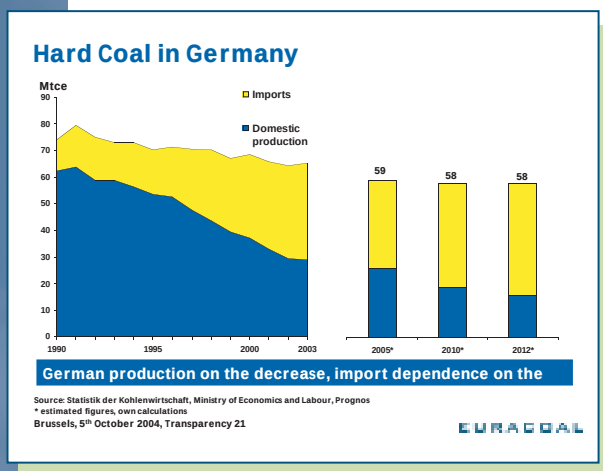
18. Greek lignite is one of the unknown players in the European coal industry. Few people are aware that Greece produces considerable quantities of lignite, not only in Macedonia but also in the Peloponnesian peninsula. Lignite makes an important contribution to the country's power supply industry.



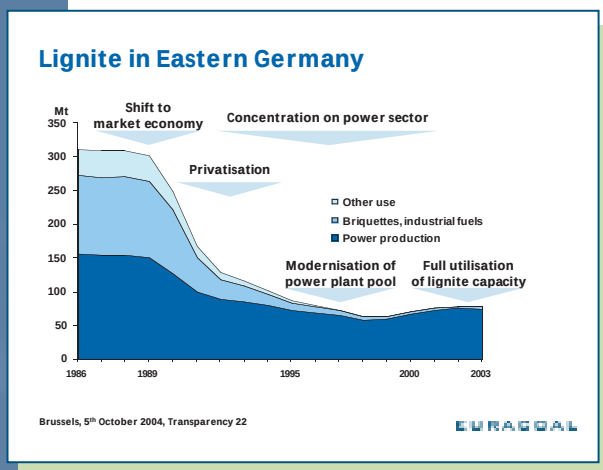
19. Greece has continuously increased its lignite output over the last two decades and the growth in energy demand is primarily met by lignite-based electricity. Apart from a few oil-fired power plants, which are mostly island based, more than 70 % of the country's electricity needs are now supplied by lignite power. Increased production at opencast mines, the development of new coalfields and the construction of new power generation plants are clear indication of an ongoing modernization process. Greece is now able to enjoy more favourable electricity prices than other European countries and lignite is currently a more valuable resource than it has been for many years.
It is also worth mentioning the ongoing internal political debate in Greece as to whether coal prices should be increased in order to improve the power-sector marketability of the country's relatively expensive supplies of natural gas.



20. Coal has had a long-standing tradition in Germany and this fuel will continue to play an important role in the years ahead. More than half of the electrical power generated in the country is currently produced from coal.



21. There has been much talk about the decline in German hard coal production and the reduction in subsidies to the mining industry. Yet we forget that the demand for hard coal in the German power sector, and indeed in the steel industry too, remains high. The dramatic rise in the purchase price of coal, and the inordinately high prices now being paid for coke, mean that the financial burden resulting from the Government subsidy scheme is now being viewed in a different light – especially in North Rhine-Westphalia. The “insurance premium”, a word long favoured in coal-industry circles, is now being viewed quite differently and the concept is gaining support from other industries that until recently had been in the opposing camp. Irrespective of these factors, the process of coal-industry restructuring between now and the year 2012 has already been pre-determined by political agreement.

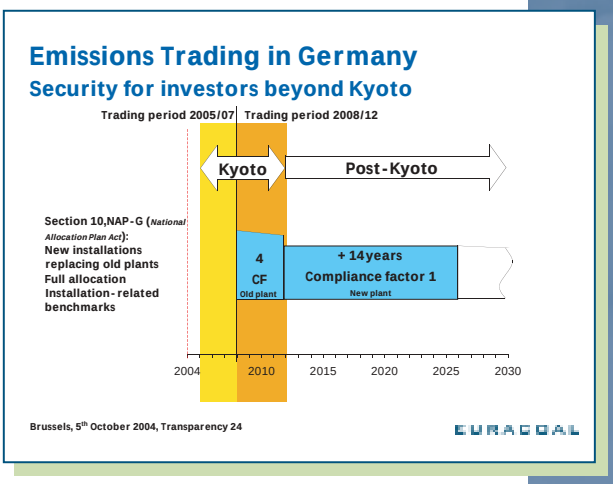


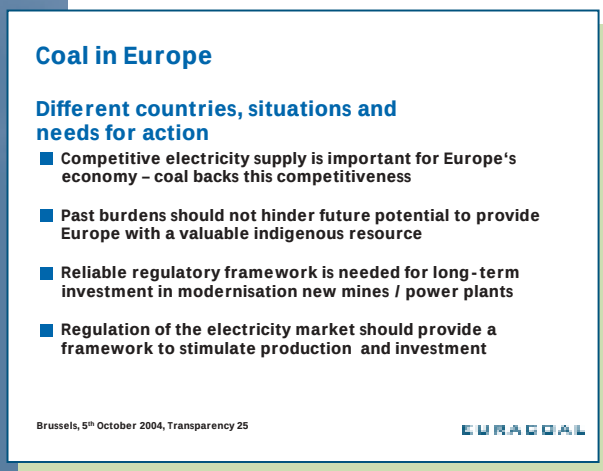
22. After German re-unification the industrial infrastructure of the new German Länder underwent a number of fundamental changes, and of course this affected the lignite industry too. The immediate impact was that lignite production fell from some 300 million tonnes to about 60 million tonnes, although it has now recovered again to stand at 80 million tonnes a year.
The lignite produced in the new federal states is primarily used for power generation and this therefore provides a solid basis for the future of the industry.
As part of the restructuring process the workforce was downsized from its previous peak of some 150,000 to the present figure of fewer than 10,000. This substantial reduction in manpower has been supported by government measures, including early retirement.
All outdated installations and facilities with no future potential have been incorporated into a single state-owned rescue company. The federal government has provided considerable funding to recultivate some forty existing opencast mines and create residual lakes from abandoned mining sites. A wide range of measures have also been introduced to revitalize former mining regions. The privatised lignite companies now operating in the new federal states are fully competitive and make an important contribution to the performance of the industry nationwide.

23. The opencast mines of the Rhine basin produce some 100 million tonnes of lignite a year. This output represents a power generation capacity of about 11,000 MW. As mentioned earlier, these generating installations are gradually being replaced.

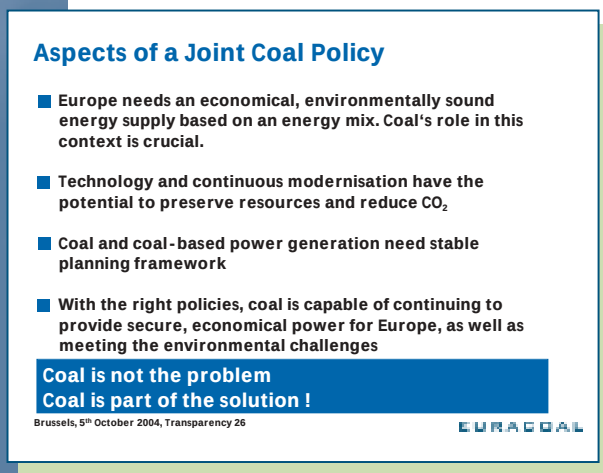
24. The major investors that the industry needs to modernize the existing power generating installations in the east and west of the country will only come on board if long-term framework conditions are guaranteed.
The legislator has drawn up an interesting strategy paper, which is cited here as an example. The concept is referred to as the “protection of legitimate expectation over the depreciation period of a new power plant”. This means that the legislator has rejected any form of compulsory fuel change. Coal therefore has a future.

Any power plant operator who wants to replace an old facility with a new one will be entitled to free emission rights for the first four years of the new installation - the amount he would have needed to cover the emissions for his old installation. This period is followed by a term of 14 years during which the certificates are allocated free of charge and according to demand. This arrangement means that an investor will not have any additional emission charges for about 18 years.
However, there are also negative elements, such as the “Malus” regulation for older facilities and the unfavourable regulations that apply to new investments as well as to modern plants already in existence.
This brief review of the situation in Germany shows that emissions trading is no longer a theoretical exercise but is now actually up and running. It is based on trial and error – or to use the current terminology “learning by doing”. The coal industry is determined to be part of the emissions-trading debate and is keen to ensure that unwelcome repercussions are kept to a minimum.
This will of course take time.





25. Let me now summarize what has been said and present a number of conclusions.
The four examples given show how different the coal industries are in the various member states. Yet while the action schemes that are under way clearly differ from one country to the next, there are still a number of factors that are common to all parties.
EURACOAL is convinced that the competitiveness of the power market will be an important element when it comes to securing the future of the coal industry. Coal's availability and competitiveness only becomes a real advantage in a market-oriented environment.
As the examples show, major structural changes always impose huge challenges. Inherited liabilities cannot often be supported by the enterprise in question, with the result that the companies affected simply go out of business. This is where state assistance is required – and this applies particularly in structurally weak areas whose historical background imposes the need for a large-scale shedding of manpower.
Investing in the modernisation and construction of new power generation plants and mines means making a long-term commitment and those willing to provide the funds have to be supported by a reliable legal framework.
The regulation of the electricity market has a major influence on the behaviour of investors. The supply grids have to be regulated in a manner that gives producers and consumers clear price signals from the competitive market, in other words we need to avoid overcharging but at the same time generate prices that will stimulate investments.

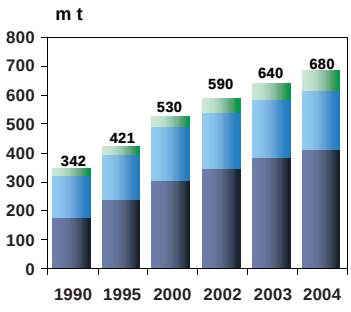


26. EURACOAL considers that the key concepts for a common coal policy are a balanced energy mix, market orientation and technology and a sensible approach to environmental protection.
EURACOAL is convinced that an energy supply that is both reliable and economically efficient, and which also respects the environment, must be based on a broad energy mix where coal plays a central role.
Technology and continuous modernization are synonyms for the sustainable use of resources and CO2 reduction.
Coal's categorization as a primary energy source, the introduction of efficient power plant technology and the exploitation of existing potential for further improvements can all create a framework within which coal can demonstrate its importance in the European market without external help.
This can only be achieved if the industry, on one hand, and the European Parliament, the national governments and the authorities, on the other, are willing to develop the existing framework conditions. European legislation must be made sufficiently flexible to give member states a free hand in how to achieve their national and European targets.
Coal is not a problem when it comes to the European energy question - it is part of the solution.
I regard today's Coal Dialogue as an important part of our efforts to find answers to existing questions and to develop effective solutions.
Thank you for your attention.

EURACOAL
European Association for Coal and Lignite

The current situation of the World Coal Market

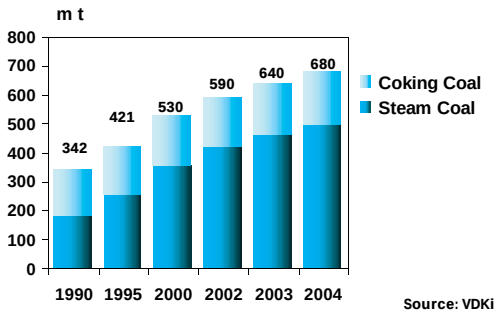
Dr. Ing. Wolfgang Ritschel
Chairman Market Committee
Euracoal



Source: VDKi

Seaborne Hard Coal Trade
Import Regions

EURACOAL



Source: VDKi

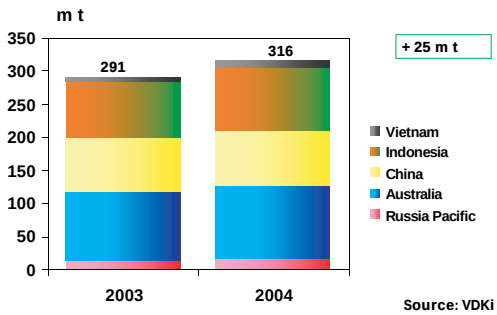
Seaborne Hard Coal Trade
Steam Coal and Coking Coal

EURACOAL

- **Steel production and coal-based power-generation are growing world wide**
- **Pacific remains most dynamic region**
- **World coal market volume increase in 2004 in total by 40 - 45 m t (6 - 7 %)**
  - thereof steam coal + 35 – 40 m t
  - thereof coking coal + 5 m t

Source: VDKi

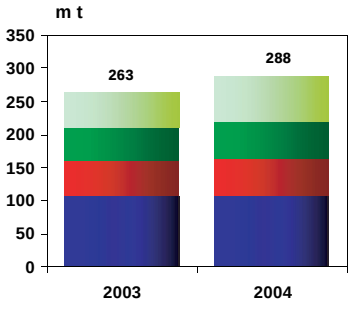
EURACOAL



Source: VDKi

Steam Coal Supply
Pacific

EURACOAL



Source: VDKi

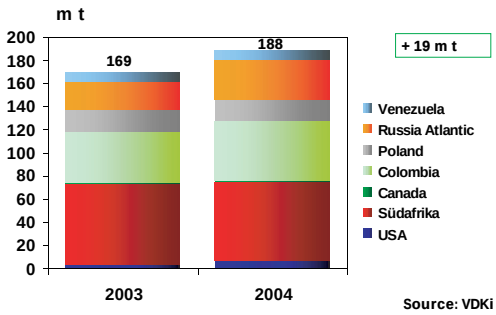
Steam Coal Demand
Pacific

EURACOAL

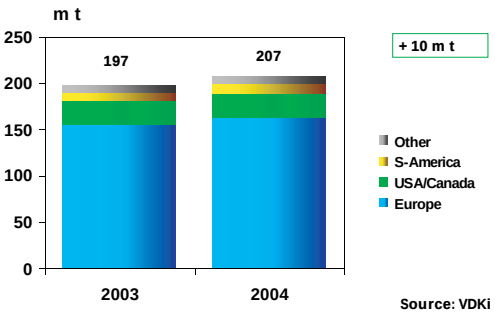
- **Pacific supply of steam coal is growing by estimated 25 m t**
  - Indonesia + 10 m t
  - China + 3 m t
  - Australia + 7 m t
  - Russia Pacific + 2 m t
  - Vietnam + 3 m t
- **Pacific demand is growing as well by 25 m t**
  - Japan 0
  - South Korea + 4 m t
  - Taiwan + 5 m t
  - Other + 16 m t (Malaysia, India, Thailand)

Source: VDKi

EURACOAL



Steam Coal Supply Atlantic | EURACOAL



Steam Coal Demand Atlantic | EURACOAL

- **Atlantic supply is growing by 19 m t**

Colombia	+ 8 m t
Russia Atlantic	+ 10 m t
USA	+ 3 m t
South Africa	- 2 m t
Poland	+/- 0 m t
Venezuela	+/- 0 m t

- **Estimated Atlantic demand + 10 m t. Demand of 207 m t is higher than supply of 194 m t. Difference covered by Pacific coal.**

USA/Canada	+/- 0
Europe (incl. Turkey,Israel)	+ 8 m t
South America	+ 1 m t
Other	+ 1 m t

Source: VDKi

EURACOAL

2004	m t	Supply Atlantic	Supply Pacific	Total Supply
Market Pacific	288	7	283	290
Market Atlantic	207	181	33	214
Market Total	495	188	316	504
2003	460	169	291	460
Change	35	19	25	44

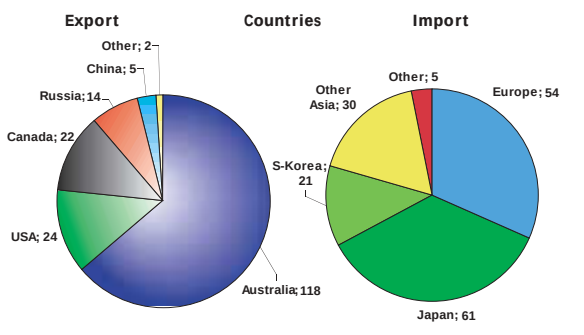
Source: VDKi

Pacific Supply can fill up Atlantic Offer | EURACOAL

- **World steam coal demand grows from 460 m t to 495 m t**
- **Supply side sufficient, China above 2003 level, much more than predicted; also Poland on last years level**
- **Demand / supply side still tight**
- **Steam coal market increased by 140 m t (+ 40 %) in the last five years (2000 – 2004)**
- **With higher world market prices for oil, gas and coal more oversea-coal is becoming competitive**

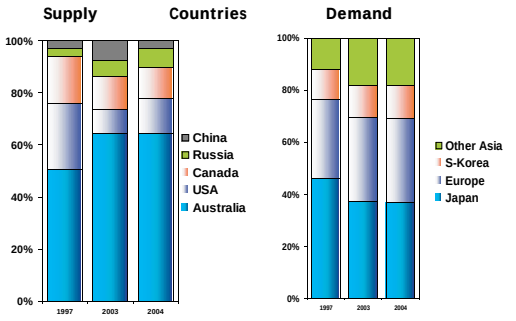
Source: VDKi

EURACOAL



2004: 185 m t

Coking Coal: Export- and Import Countries | EURACOAL



Supply and Demand Structure | EURACOAL

mt	2003	2004	Projection
Import	2.6	6.5	+ 3.9
Export	13.1	5.4	-7.7
	10.5 Export Surplus	1.1 Import Surplus	11,6 Additonal Demand

11,6 mt additional supply from other producers – Australia, USA/Canada - necessary

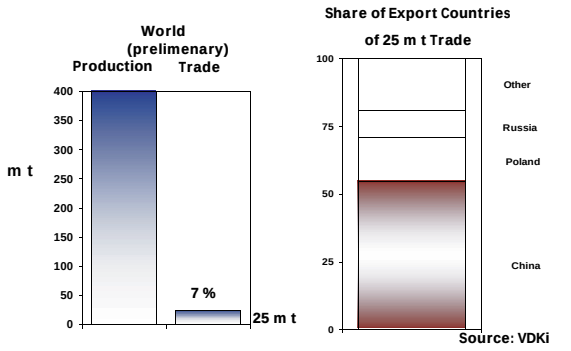
Source: VDKi

Coking Coal - China | EURACOAL

- World Market for Coking Coal increases slowly
- Reduced number of Supplier; Australia dominates more and more the Supply Market, China changes from an Exporter to an Importer
- BHP will extend further coking coal capacities up to 2010
- Higher price level may lead to more exports from USA/Canada

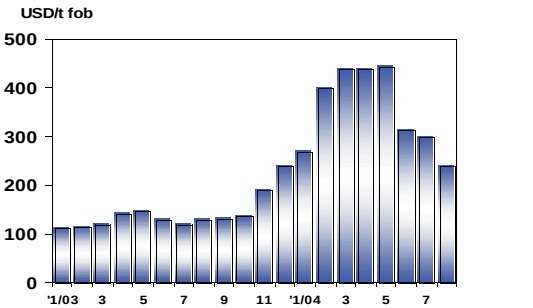
Source: VDKi

EURACOAL



Source: VDKi

World Coke Production and Trade 2004 | EURACOAL



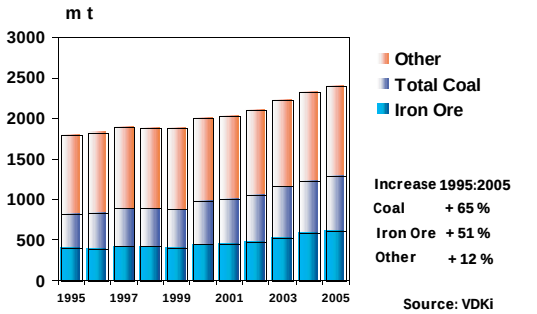
Source: VDKi

Price Development Chines Coke
- spot,12-12,5 % Ash- | EURACOAL

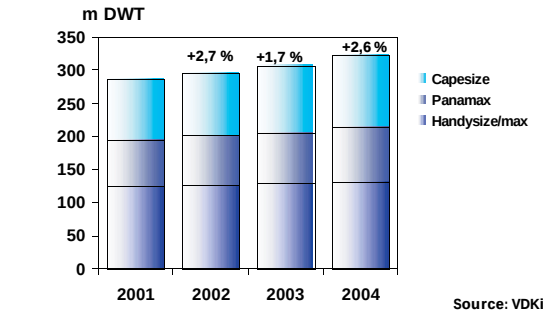
- World coke market only 7 % of total coke production (400 m t). China biggest coke-producer with nearly 180 m t. Export of 15 m t also in 2004 possible
- Coke prices presently around 240 USD/t fob China (190 /t); cif ARA 280 USD/t (228 /t)
- Coke price for steel mills with own coke-batteries and world market coking coal around 140-160 /t

Source: VDKi

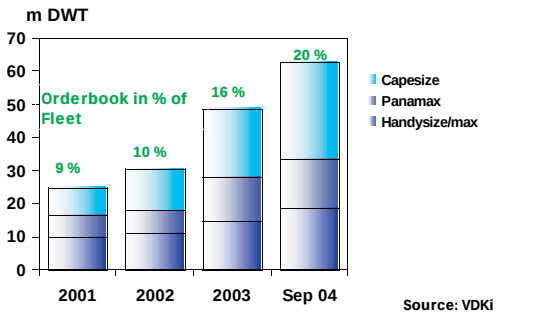
EURACOAL



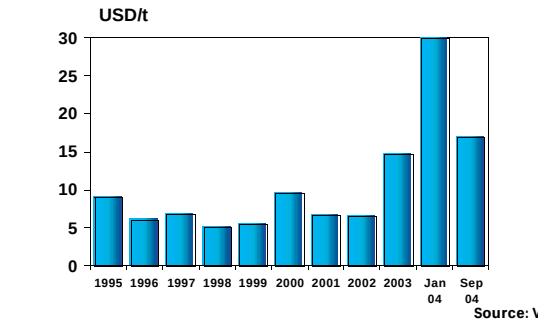
Toal Traded Dry Bulk Volume | EURACOAL



Total Bulk Fleet Capacity (End Year) | EURACOAL



Orderbook | EURACOAL



Freight Rates South Africa - ARA | EURACOAL

- Dry bulk volume will increase by nearly 30 % from 1995-2005. Coal +65 % and iron ore + 51% with strong growth rates.
- The share of coal and iron ore will grow from 46 % to 54 %
- The capacity of the bulk fleet has grown only with low rates in recent years
- The orderbook for new capacity is increasing

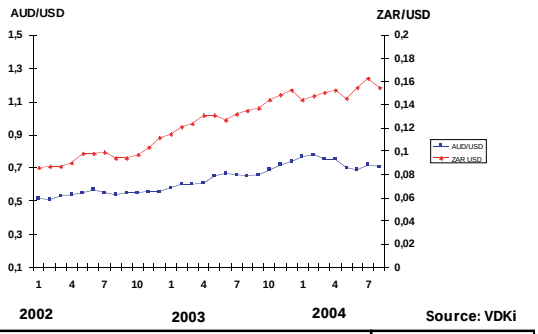
Source: VDKi

EURACOAL

- Supply and demand will be better balanced in the future
- Capesize and panamax with strong increase in 2003 / 2004
- Freight rates have been fallen considerably from the toü-spot-prices at the beginning of the year – still on high level. Supply /demand situation remains short-term tight

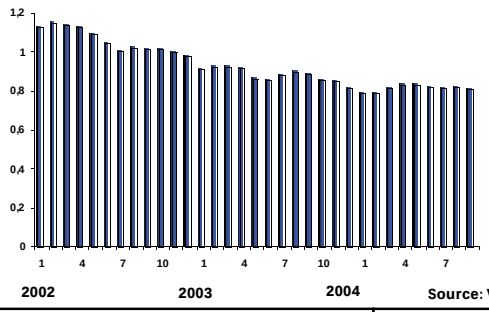
Source: VDKi

EURACOAL



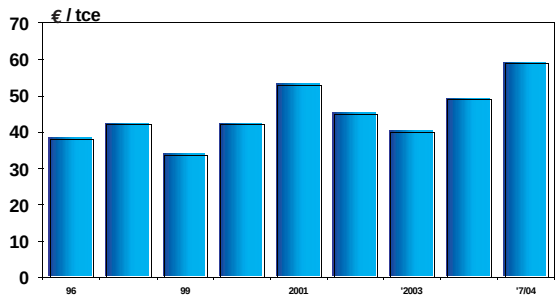
Source: VDKi

Exchange Rates | EURACOAL



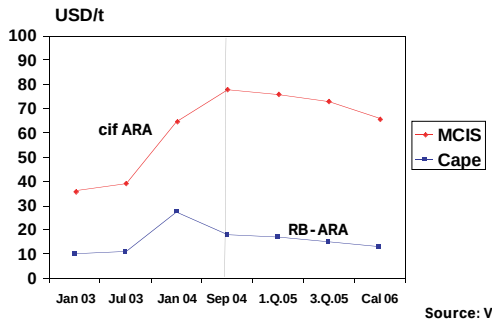
Source: VDKi

Exchange rates /USD | EURACOAL



Source: VDKi

Price Development Steam Coal on basis BAFA Index | EURACOAL



Source: VDKi

Forward Prices | EURACOAL

Conclusion

- The world market is again growing above normal growth rates and will come close to 700 m t in 2004
- In principle the logistics of the seaborne trade are working. Bottlenecks will disappear because ship-building and export terminals capacities are enlarged
- Price levels will come back to normal, but on a higher level than in the past. The coal industry needs higher prices to invest in expansion. The same is happening with oil and gas

- Weak Dollar has big influence for the world market
- South Africa and Australia need higher USD-prices to cover their running costs, because their currencies strengthened against the USD
- Euroland is profitating from the present Dollar/€ relation; the effect of high world-market-prices in $ is reduced by the favourable relation for Euroland.

- Seaborne coal will keep its competitive advantage against gas and oil
- Higher world market prices are improving the competitive situation of EU coal production
- Regarding the beginning battle for energy in the world, coal import as well as domestic coal are an important part of an European energy mix
- 2005 we expect a slower growth rate for the world market on the background of a weaker world enconomy

Minutes of the first Coal Dialogue

Mr Schmitt von Sydow (DG Transport and Energy) welcomed all those taking part in the first Coal Dialogue and expressed the hope that this initial meeting would create a common forum for the Commission, the Member States, the European Parliament and the coal industry that would help find solutions to coal-relevant issues within the EU. In view of the growth in world demand for coal and the ongoing rise in energy prices the expectation was that coal – and nuclear energy too – would undergo a revival. If the EU was to market European technology in third countries, and especially in rapidly developing regions like China, it would have to remain a user and consumer of coal.

Dr Böcker (President of EURACOAL) thanked the Commission and Mr Schmitt von Sydow for their initiative in helping establish the coal dialogue as a continuing focal point of collaboration between the Commission and the coal industry. He then went on to introduce the day's programme.

Mr Galanis (DG Transport and Energy) presented the role of solid fuels in the context of an energy supply strategy. The Commission was currently drafting a communication with the working title "Towards a Global Approach to Energy Supply". Coal would have a valuable contribution to make in the years ahead if it could rise to the challenges posed in key areas such as "energy efficiency" and "environmental protection".

Mr Luque Cabal (DG Transport and Energy) then made a number of additional comments, at Mr Schmitt von Sydow's request. He could see no major risks at the present time in using geological formations for the purpose of CO2 sequestration and said that it was now important to continue to test the various options for this type of CO2 storage. However, this would require billions of euros in investment – and the research framework programmes could make a small contribution here.

The time was now ripe for discussions to be held on the future use of coal and lignite in the EU. This was a consequence of the accession of a number of Member States with substantial coal industries. Furthermore, in the course of the past two or three years the need for price stability – a requirement that coal was well placed to meet – had become an increasingly important aspect of the energy-policy debate.

Dr Böcker then spoke on the theme "Coal in the European electricity market – challenges, chances, risks". He pointed out that an efficient, reliable and environmentally-compatible energy supply could essentially be achieved by a proper energy mix combined with market orientation and technology. Coal could be an important part of the solution to these problems.

Finally, **Dr Ritschel** (Chairman of the EURACOAL Market Committee) reported on the current situation in the international coal markets. The presentation showed that in view of the price risks associated with oil and gas, both imported and indigenous coal would continue to be an important element in the European energy mix.

In opening the panel discussion **Mr Schmitt von Sydow** recalled the need for coal to be used as a mainstream EU fuel. The vulnerability of other energy sources, and the associated price risks, were certainly to coal's advantage, but solid fuel still had to find effective answers to its environmental problems.

Mr Yaxley (Vice President of EURACOAL) used his opening statement to recall that with the accession of ten new Member States, and even more so after the expected entry to the EU of Bulgaria and Romania in a few years time, coal and lignite mining would be well distributed throughout the Community of Twenty-Five. Most of the challenges facing coal were environmental in nature, and were associated mainly with climate protection, but there was also an urgent need to tackle the social issues affecting those living in the coalfield areas.

Mr Yaxley held that one of the main challenges for EU energy policy was to work towards a stable framework that would provide a stimulus for Clean Coal Technologies rather than a further "dash for gas".

Mr Buzek (MEP) saw Clean Coal Technologies as a main focus of activity for the Parliamentary ITRE Committee. Workable solutions would soon have to be found for eliminating SO2 and dust from flue gases and the problem of NOX emissions also had to be solved by adopting a step-by-step approach. Any progress in the area of CO2 separation would account for a substantial proportion of the power generation costs. Public research programmes were therefore necessary, including for example the building of a demonstration plant with possibly half the output of a commercial installation. However, it was also important to bear in mind that the main problem was not separating the CO2 but storing it.

The following topics were covered in the ensuing discussion, which mainly involved **Mr Bogolubov, Dr Libicki, Mr Toth, Mr Reichel, Dr Böcker, Dr Milojcic** and **Mr Schmitt von Sydow**:

- Russian ratification meant that the Kyoto Protocol would now come into being. However, India, China and the USA had not ratified the agreement and were therefore presumably in a more favourable position to produce electricity and industrial goods. This meant that the EU had to draw up its own policy for providing a secure supply of energy at favourable prices.

- The vision of an almost CO2-free power station could be promoted as part of the 7th Research Framework Programme. However, what was being proposed was a separate larger-scale programme for integrated energy systems (Mr Buzek). Such a programme would have to be funded jointly by the EU/Member States, the coal industry and the coal and electricity consumers.

- In the long term coal would have to be produced at competitive prices. The Commission was not able to support any move towards market segregation.

- Most of the Member States had by now submitted their draft NAPs (national allocation plans) to the Commission. It was still too early to paint an overall picture for the Community of Twenty-Five, since some Member States had still to produce their plans. Nevertheless, the aspect of investment security had to be dealt with in an appropriate manner when it came to the further development of the emissions trading scheme. It would be extremely useful to draw up a comparative analysis of the contents of the NAPs with regard to the provision of investment security for power station operators.

Mr Schmitt von Sydow and **Dr Böcker** thanked the speakers and all those who had contributed to the discussion. Both regarded the first Coal Dialogue as the beginning of a wider and more intensive debate on energy supply stability and on the creation of an appropriate set of framework conditions for electricity generation. The setting-up of a permanent forum to discuss coal-related issues, following the model of the oil and gas industries, would be a really worthwhile move and both **Mr Schmitt von Sydow** and **Dr Böcker** called for the Coal Dialogue to be continued through 2005.

EURACOAL

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