

EURACOAL

European Association
for Coal and Lignite

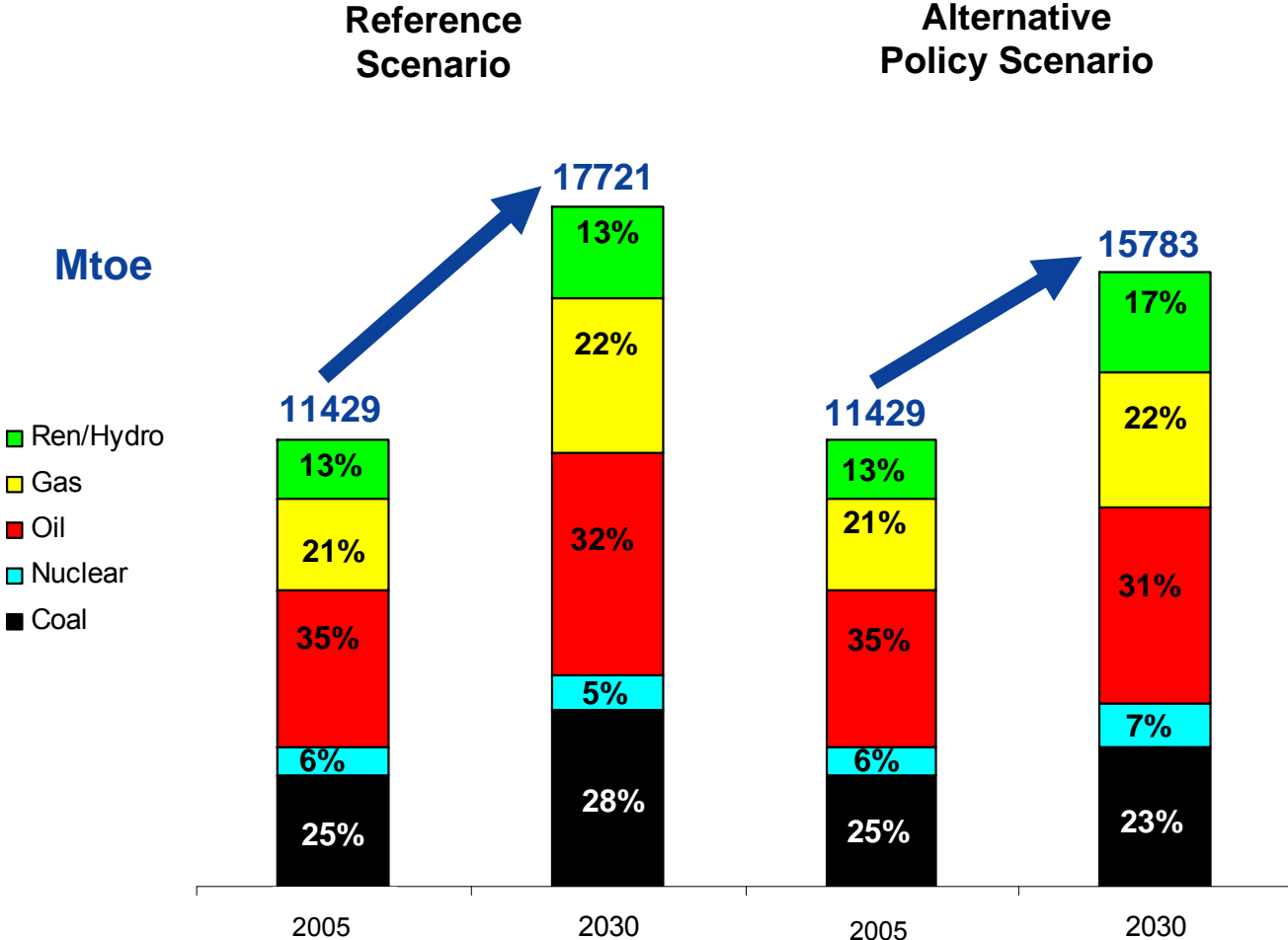


Workshop on Clean Coal Technologies

Regional Office of Silesia in Brussels

10th June 2008

Coal will remain a major component of the energy mix



Source: IEA World Energy Outlook 2007

EURACOAL agrees with the EU ...

- that we must act now and globally to secure energy supply and avoid harmful climate change, we cannot wait for the U.S. or Asia
- on the 20% objectives until 2020 (energy saving, energy efficiency, climate change objective, renewables target), let us take all the targets seriously
- that we must be less dependent on energy imports
- that access to EU coal deposits needs to be secure (by stressing the necessity to use domestic mineral resources)
- that we need to enhance power plant efficiencies **and** to develop CCS
- that 10 to 12 CCS demonstration plants must be operational by 2015 in order to develop competitive CCS after 2020
- that public support for deployment of CCS demonstration plants is essential in order to overcome the “valley of death”

Current discussion –

Major errors

- Renewables are available for base load
- Gas can be the solution during the very long transition period , i.e. until the renewables will be able to secure Europe's energy needs
- Coal can be phased out soon in Europe
- There will be dozens of large coal-fired power plants in the EU very soon
- New coal is a technology lock-in; moratorium for new coal-fired plants in spite of capture-readiness
- CCS is not an option or – on the contrary - CCS will be there before 2020

Current legislation – Questions to be answered

- How can we avoid a lack of primary energy sources / electricity and contribute to climate change protection at the same time?
 - Investment in energy including new coal.
- How can we assist the threshold countries to help us protect climate and resources?
 - Demonstrate more efficient power plants (up to 50%) as well as CCS.
- How will investments in BAT power plants be stimulated? Is there a need to adjust the EU ETS Draft Proposal?
- How will negative impacts on the coal regions be avoided or at least mitigated?

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.

CCS Directive

- Commission's proposal is a good starting point
- Parliament's and Council's work to clarify and to amend specific issues such as
 - Will the holder of an exploration permit as a rule be entitled to operate the storage site?
 - Access to storage sites for third parties
 - Purity of the CO₂ stream
- Capture-readiness: no transport or storage rules that delay projects
- Mandatory CCS for new power plants would be premature; we will have to demonstrate the technologies first

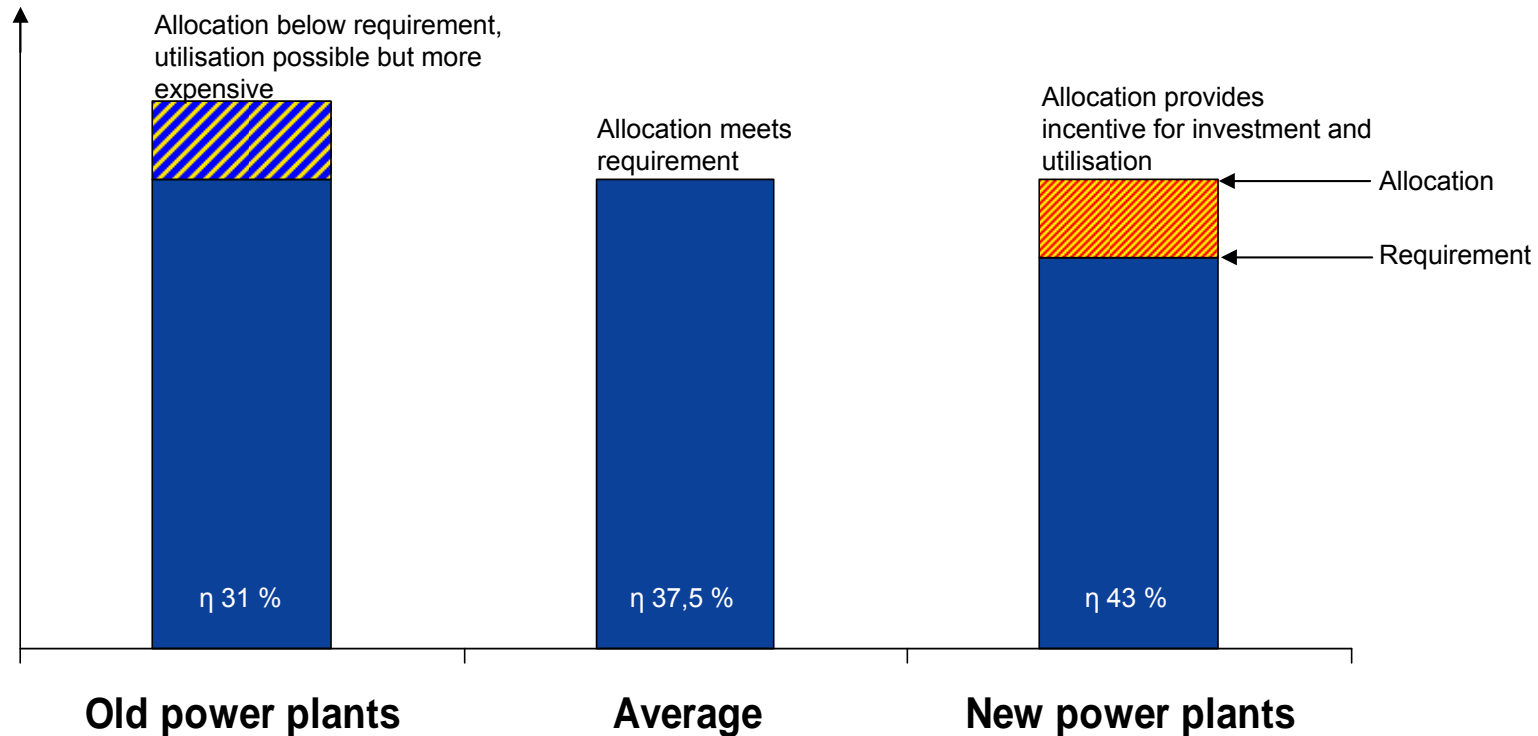
Draft Directive on EU ETS as from 2013

- Major energy and industrial structural issues not considered appropriately
- Drastic increase of energy prices?
 - Consumers will have to pay the € 400 billion (2013 – 2020) assumed as a „revenue“ at a CO₂ price of € 25-30
 - In case of a switch from coal to gas: more gas needed – influence on security of supply and on the price?
- ETS sector over-burdened
- Coal regions disadvantaged – a burden of 200 billion Euros put on EU coal use alone in 2013 to 2020
- Replacing older coal fired plants with average efficiencies of 30% by BAT with about 45% efficiency can save 1/3 of the CO₂

Impact of benchmarks and load factors I

Case study: Benchmark geared to the average emissions of a specific class of installations, e.g. lignite-fired power plants*

Allocation/requirement
EUA¹⁾



* Can be applied to all fuels/power plant types and also processes e.g. steel, cement

¹⁾ EUA = European Union Emissions Allowance

Allocation secures liquidity of power supply and provides incentive for investments, especially for newcomers. Electricity is produced in most efficient manner. Energy policy targets concerning energy mix are supported. No incentive to switch fuel.

Draft Directive on EU ETS as from 2013

- EURACOAL suggests fuel specific benchmarks
- If they cannot be achieved, the negative effects of auctioning should be mitigated by
 - gradual auctioning over a longer period, also for the electricity sector
 - a free-of-charge allocation to *new* BAT plants on the basis of fuel-specific benchmarks in order to support investments in most modern plants
 - the use of the proceeds from auctioning primarily for climate protection, e.g. power plant-related R & D and demonstration (improved efficiency, Carbon Capture and Storage).
 - full acceptance of JI/CDM.