

European Regulation and the Physical Coal Market

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Association of
UK Coal Importers

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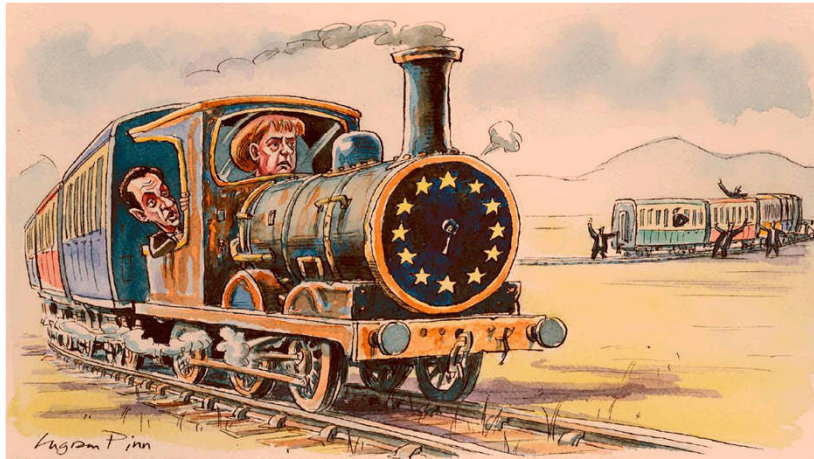
CoalImp Members

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ABP	Clydeport	DB Schenker	Drax Power	EDF Energy
E.ON Energy Trading	Fergussons	Freightliner	GB Railfreight	Hargreaves
International Power	Network Rail	Oxbow Coal	Port of Tyne	Rio Tinto Alcan
Rudrums	RWE Trading	Scottish Coal	Scottish Power	SSE Energy Supply

Is coal being left behind by EU regulation?

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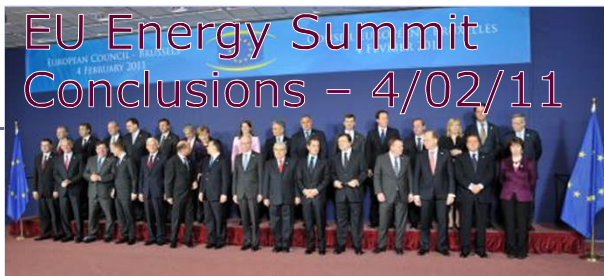


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EU Energy Summit Conclusions - 4/02/11

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- "Safe, secure, sustainable and affordable energy contributing to European competitiveness remains a priority for Europe"
- "In order to further enhance its security of supply, Europe's potential for sustainable extraction and use of conventional and unconventional (shale gas and oil shale) fossil fuel resources should be assessed"

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European Regulation and the Physical Coal Market

Background and Introduction

Industrial Emissions Directive

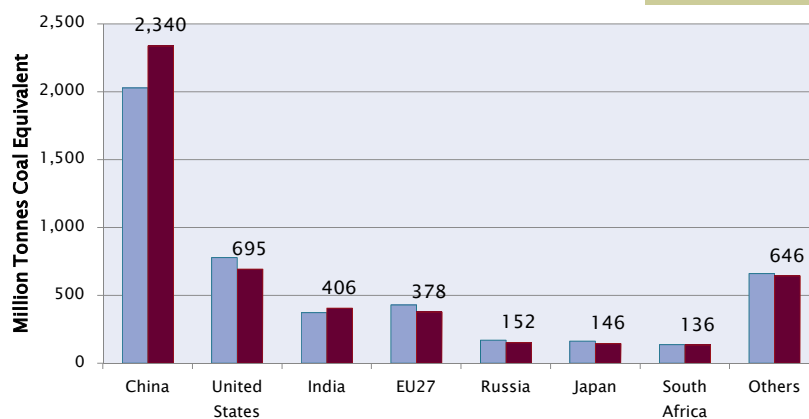
Climate Policy – Emissions Trading

New Stations – Kick-Starting CCS

Other Regulatory Initiatives

UK Policy – a Challenge to Europe?

India's coal consumption overtook the EU in 2009

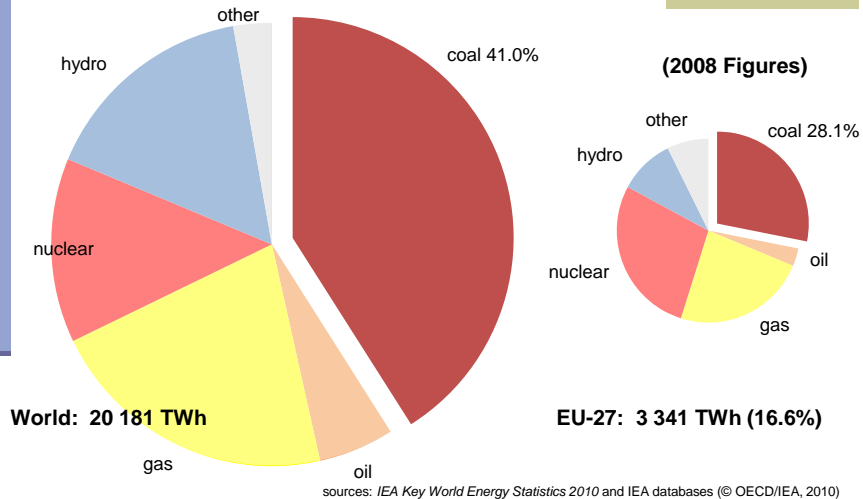


Source: IEA Coal Information 2010

■ 2008 ■ 2009

Coal supplies 28% of Europe's electricity

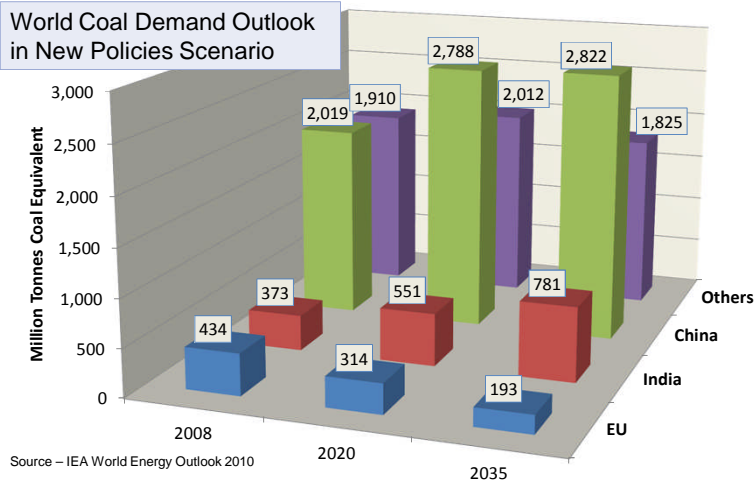
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IEA foresees major demand reduction in Europe...

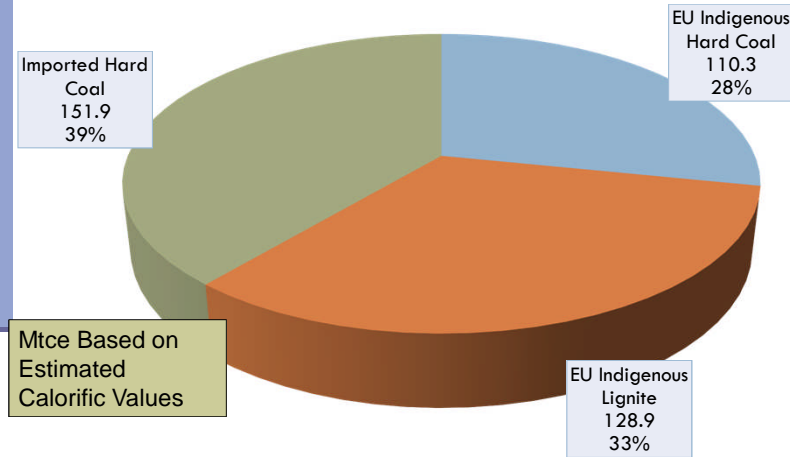
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61% of EU's 2009 solid fuel supply was indigenous

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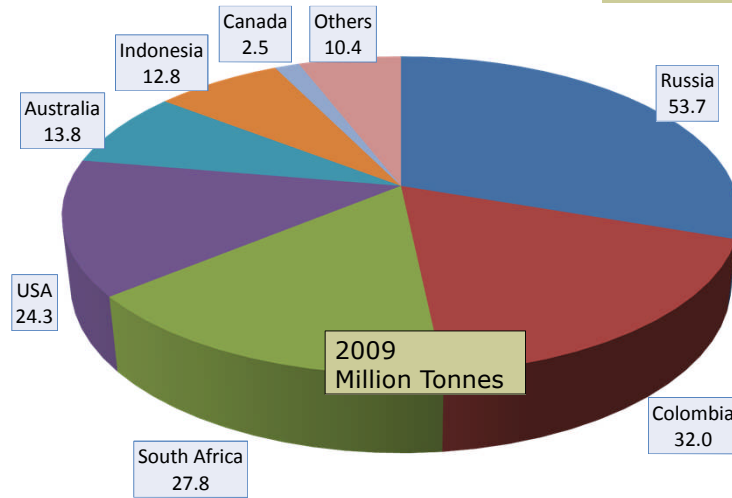


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Russia and Colombia are now the major suppliers

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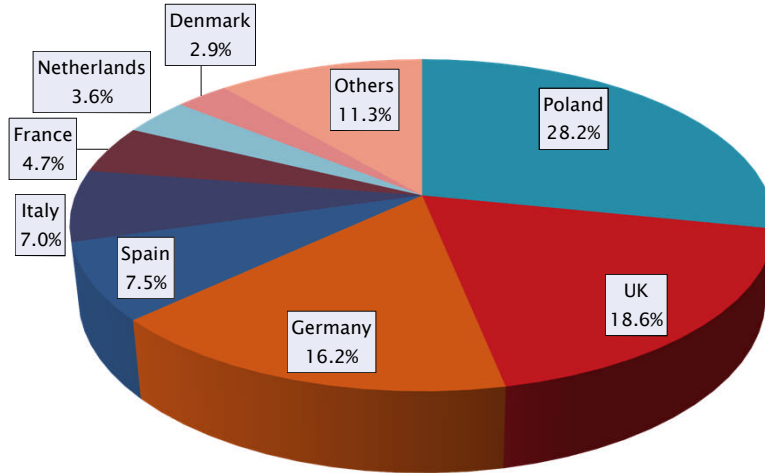


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80% of EU steam coal demand is in 6 countries

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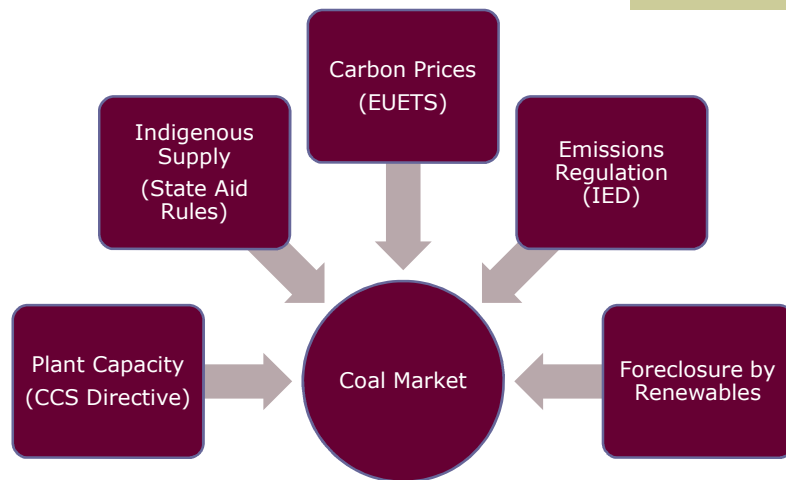


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Coal market has several EU regulatory drivers...

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... and generators have some key challenges

Whether to invest in new coal plant

- Is coal pricing itself out of the market?
- Will UK-style policies spread across Europe?
- How will CCS regulation develop?

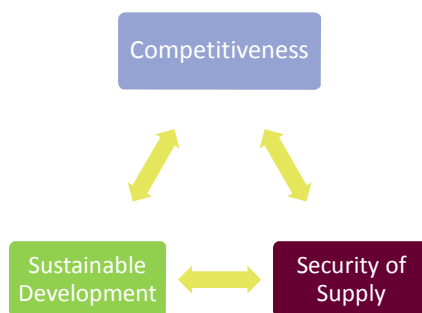
Whether to invest in SCR

- Will payback be achieved on old stations?
- Are there other technical solutions?

How to manage coal supply under the IED opt-out

- Buying coal to minimise NOx
- Limiting indigenous coal for SOx

EU policies are based around the energy 'trilemma'



- Energy for a Changing World
 - 20-20-20 by 2020
- Policy challenges for coal
 - Carbon pricing
 - Phase 3 auctioning
 - CCS policies
 - New coal without CCS?
 - Renewables targets
 - Market foreclosure
 - Industrial Emissions Directive

The proposed IED was a major threat to coal...

- Proposed by European Commission mid-2009 and supported by European Parliament but amended in Council
- Replaces LCPD on January 1, 2016
 - Further tightens limits on SO_x and NO_x emissions
 - In order to comply with lowered NO_x levels from 2016 onwards, operators would have to install SCR equipment
- Emission Limit Values (mg/Nm³)

	LCPD	IED
SO₂	400	200
NO_x	200	200

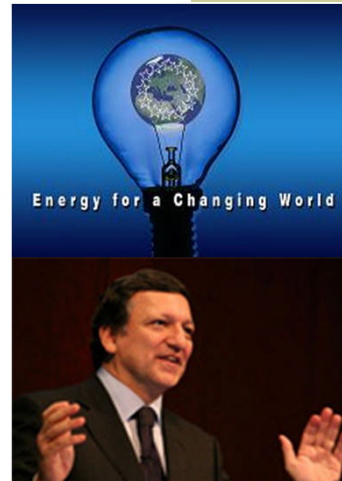
...then final compromise gave further concessions

- Implement Emission Limit Values (ELVs) from 2016
 - Derogation for 'peaking plant'
- OR Transitional National Plan to end-June 2020
 - Straight line reduction based on 2001-2010 fuel use and operating time
 - NO_x trading between 'TNP' plants
- OR Opt out
 - 17,500 hours or close end-2023 (25% load factor for full period)
 - To be declared by 1 January 2014
- Derogation in meeting SO_x ELVs on burning indigenous coals given a desulphurisation rate of 96% (aimed at Eastern European lignite burners)

Energy for a Changing World foresees '20-20-20' by 2020

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- 20% reduction in greenhouse gases on 1990 levels
- 20% improvement in energy efficiency
- 20% share of renewables in total energy
- 30% GHG target dependent on comparable international action



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Energy Roadmap 2050 will be published this Autumn

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- European Council's target of an 80-95% reduction in EU greenhouse gas emissions below 1990 levels by 2050
- Energy Roadmap 2050 will present different pathways as scenarios
 - Will address established objectives – sustainability, energy security and competitiveness
 - Will focus on how energy security and competitiveness can be improved throughout the transition to a low-carbon energy system

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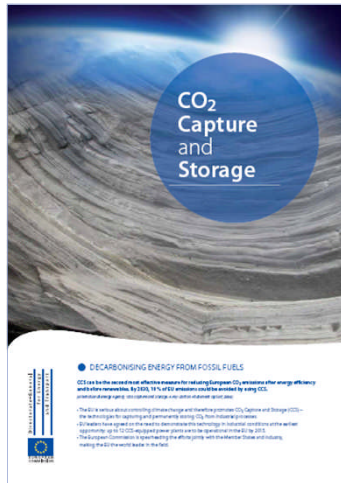
Emissions trading was intended to be the key instrument for reducing CO₂

- EU Emissions Trading System (EUETS) is a cap and trade scheme for CO₂ emissions
- Bad for coal
 - Emissions from coal typically twice the emissions from gas
 - Switching to gas one of the easiest short term options
- Prices have so far been insufficient to drive investment
- Key determinants of price
 - Level of cap
 - Level of Kyoto Instruments allowed
 - CDM/JI
 - Coal/gas price differential

Will the third phase finally deliver what was intended?

- 2005: EUETS First Phase – launch and initial (over)allocation
- 2008: Second Phase – undermined by the recession
- 2013: Third Phase – 17.5% cap reduction 2012 to 2020
 - Consistent with 20% emissions reduction by 2020
 - 100% auctioning for power sector
 - NB derogation from full auctioning in some countries
 - Auctioning phased in for industry (carbon leakage)
 - Limitation on JI/CDM credits that can be used
- But fuel switching to gas remains a key emissions reduction tactic rather than investment in low-carbon generation
 - A new dash for gas may be triggered

EU attempts to kick-start CCS...



- EU Council agreed 12 CCS demonstrations by 2015
- CCS Directive
 - Regulation for CO₂ storage
 - All plants carbon capture ready
 - CCS to qualify for carbon permits

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...and provides some funding

- Economic Recovery package
 - €1 billion for 6 projects (including Hatfield)
- Original scheme – 300 million free carbon allowances for up to 12 projects
 - Now 8 CCS projects envisaged
 - Invitation for bids Q310
 - Assessment by EIB Q111
 - Recommendations Q411
 - Announcements end-2011
- Commercial operation by end-2015
- But will require top-up funding from member states
 - e.g. UK.....

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Will renewable energy foreclose the market?

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- Target of 20% energy from renewables by 2020
- But what will provide the back-up?
- What further policy instruments may be required?

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EU state aid rules now allow subsidies until 2018

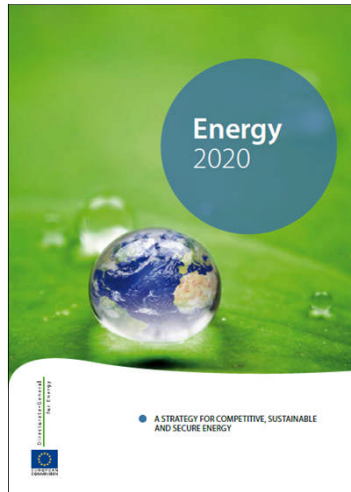
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- Package finally agreed in December 2010
 - All member states approved except Denmark
- Closure aid permissible until 31 December 2018 (instead of Commission proposal of 2014)
- Aid must be degressive
- Member states must provide a plan to mitigate environmental impacts of coal production
- Subsidies permitted until December 2027 for exceptional costs of closure not related to production
 - E.g. social welfare benefits and site rehabilitation

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Further policy initiatives emerged in 2010...

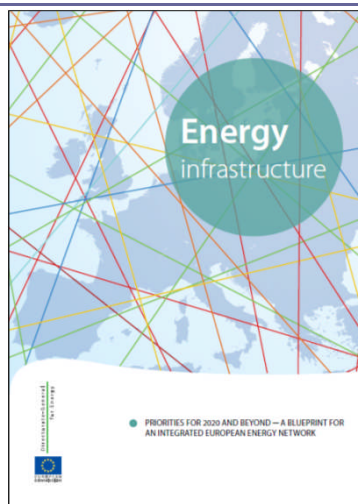


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- EU Energy Strategy 2011 to 2020
 - Priorities mainly in energy efficiency and infrastructure
 - EU Infrastructure Package defines six priorities for the next two decades

... including a priority for a CO₂ infrastructure...

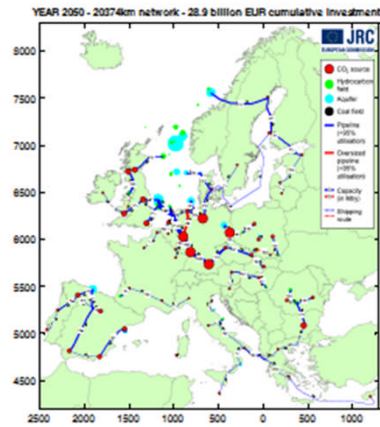
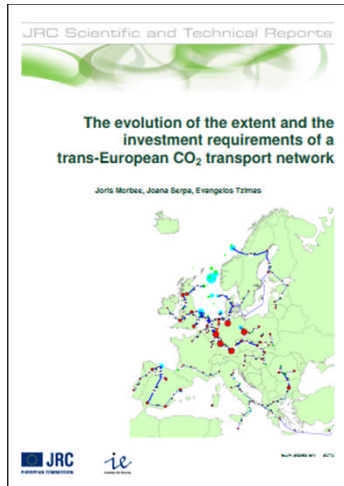


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- CCS could contribute to abating 13% of the EU's greenhouse gas
- Public engagement beyond the national level is needed.
- Limited storage potential in some European countries
 - A European, rather than a national approach to be taken

...with a vision of a CO₂ network - 2020 to 2050



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Does new UK policy show leadership for Europe?

- Carbon price floor
 - Targeting €85 per tonne CO₂ by 2030
- Feed in tariffs for low-carbon generation
 - Based on contracts for differences



- Emissions performance standard
 - Allows grandfathering of unabated gas
- Capacity payments

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Conclusions

- Europe's coal consumption becomes less important in a global context
- Industrial Emissions directive will force closure of some older power stations
- EU has ambitious climate change targets for 2020 and 2050
- Policies will impact coal through carbon prices and through market foreclosure
- EU is positive about CCS and a CO₂ network
- But funding is uncertain
- New policies may be needed to deliver objectives – e.g. UK model

Thank You

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