World Coal Institute

www.wci-coal.com

Public Image of Coal

Christine Copley

World Coal Institute

UNECE Ad Hoc Group of Experts on Coal in Sustainable Development
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Introduction

- The World Coal Institute
- Public Perception
- International Perspectives
- Technological advances

World Coal Institute

- 16 members
- International ‘voice for coal’
- Promotion of advanced coal technologies
- Raises awareness
- Encourage R&D
- Demonstrates leadership

Guiding Principles

- Increase understanding of sustainable development
- minimise adverse impacts
- improve efficiency
- reduce ‘per unit’ emissions
- transfer of advanced coal technologies
- support community development

Work Programme

- Dissemination of information
- Regional, issue-based stakeholder workshops
- Development of international coal network of associations

Sustainable Development

"development that meets the needs of the present without compromising the ability of future generations to meet their own needs"

(Brundtland Commission)

- economic
- social
- environmental

Coal - a key role

- Crucial part of the world's energy mix
- Steel production
- Affordable, reliable, available, safe & easy to transport, geographically diverse, large resource base

Public Perception

- Challenge is to get messages across
- Public awareness of coal skewed
- Use information for policies, technology R&D, transfer of current technologies

International Perspectives

- IEA, WEC
- World Bank Extractive Industries Review
- ICMM
- UNEP
- GRI and sustainability reporting
- International Global Alliance

Technological Advances

Technology Deployment	Maximum emission reduction	Developed Countries	Developing Countries
Conventional			
Thermal efficiency up to 40%			
Particulates			
Bag filters	>99%	✓✓	Some
Electrostatic Precipitators	>99%	✓✓	Some
SOx			
FGD	90-97%	✓✓	Some
NOx			
Low NOx burners	70%	✓✓	
SCR	80-90%	✓✓	Some
Advanced combustion systems			
Thermal efficiency up to 60%			
Supercritical/Ultra-supercritical		✓✓	Some
PFBC		✓	Some
IGCC		✓	Some
Zero Emission Technologies			
IGCC + Carbon capture & storage	Near 100%	R&D	N/A
Hydrogen Economy?			

Development & Deployment

- Wider deployment of best practice & technology
- Further development of ACT
- Enhancing synergies with renewables
- Ultra-low emissions
- Carbon sequestration

Hydrogen Future?

- Fuel cells for power gen & vehicles
- Hydrogen source?
- Zero Emissions

Challenges for 21st C

- Global warming/GHG emissions
- Investment for advanced coal technologies - CDM? Carbon Funds?
- Policy environment
- Technological solutions?

Key Messages

- Energy demand will continue to increase
- All energy sources will be needed
- Coal is vital for global energy security
- Challenge is to further reduce GHG
- Technology pathway is key
- Ultimate goal is near complete elimination of emissions

In conclusion...

The world needs coal

Advanced coal technologies will meet the challenges of the 21st century!