

Directorate-Genera for Energ



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Beijing, 21/10/2010. GMI Coal mines subcommittee meeting

The role of coal

- EU is the third largest consumer behind China and US
- Coal represents 18% of EU-27 total energy consumption; 30% of the power generation is based on coal
- EU coal production in 2009:
 - 132,9 Mio t hard coal (46 % of total EU hard coal consumption)
 - * 421 Mio t lignite (99 % of total EU lignite consumption)
- Coal scores high on Security of supply and competitiveness. The environmental sustainability of coal use remains a challenge



Best use of indigenous fossil fuels Key activities and areas identified with stakeholders

- Transparency of the EU coal inventory
- Sharing best practices in Berlin Fossil Fuel Forum
 - » Land use planning and environmental impact management
 - » Public awareness and acceptance
- Research and innovation, continued availability of a skilled workforce
- Unconventional coal: coal bed methane, underground coal gasification, coal to chemicals



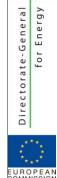
Overview of the activities on CMM

- Funding CMM technology development through two instruments: The 7th Framework programme (FP) and the Research Fund for Coal & Steel (RFCS)
- Around 20M€ in CMM projects since 2002.
- Projects under FP reach out to non-EU countries. Including a proposal under negotiation there will be activities in China, India, Russia and Kazakhstan. RFCS also welcomes non-EU partners but without funding.
- The European Commission sits in the GMI coal mines subcommittee and the UNECE ad hoc expert group on CMM

CMM relevant projects (I)

- COMETH investigates means for reducing coal mine methane (CMM) emissions to the atmosphere and will explore suitable schemes for its energetic use. Targeted to PL, CZ, RU, UA, RO, KZ and UK. 4.6M€. Ends in Oct 2011. http://www.cometh.info
- GHG2E proposes to assist developing strategies to recover methane from coal mines and use it as energy source in emerging economies, such as China and India. UNDER NEGOTIATION

 LOWCARB aims at developing techniques to significantly reduce CH₄ and CO₂ emissions from mining activities. 3.9M€. Ends in Jun 2013



CMM relevant projects (II)

- COGASOUT will develop and test technologies to predict and combat gas outbursts and emissions in coal mines with thick and/ or steep coal seams.
 3.6M€. Ends in June 2013
- MINFIREX will develop strategies to minimise the risks of coal mine explosions incl. detection measures and fire fighting methods. 2.5M€. Ends in June 2013



 SAFETECH sought to improve the safety conditions in coal mines including the quality of surveillance of underground air and the ventilation systems. 3.3M€.
 Ended in Feb 2007

International Cooperation

- EC engaged in bilateral and multilateral initiatives to exchange best practices, policies and technologies
 - Coal value chain efficiency (from production to use)
 - Carbon capture and storage (CCS)
 - Methane to markets: Coal mines and oil & gas
 - Co-financing studies/ projects
- Bilateral:
 - > China (NZEC and coal-related workshops)

 - India (Coal WG and CCT WG)South Africa (WG on CCT & CCS)
- Multilateral: CSLF, Global CCS Institute, IEA Clean Coal Centre, Global Methane Initiative





Additional information

- Project fiches enclosed with these slides
- Framework Programme for research: <u>http://cordis.europa.eu/fp7/projects_en.html</u>
- RFCS projects:
 http://cordis.europa.eu/coal-steel-rtd/
 - Questions? Write me an email to jose-manuel.hernandez@ec.europa.eu

