EU Energy Roadmap 2050 & the future of coal in Europe

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Brian RICKETTS
Secretary-General, EURACOAL
EURACOAL: 35 members from 20 countries

- COALPRO - Confederation of UK Coal Producers (GBR)
- DEBRIV - Deutscher Braunkohlen-Industrie-Verein (DEU)
- GVSt - Gesamtverband Steinkohle (DEU)
- MMI - Mini Maritza Istok (BGR)
- PPC - Public Power Corporation (GRC)
- PPWB - Confederation of the Polish Lignite Producers (POL)
- ZPWGK - Polish Hard Coal Employer´s Association (POL)
- ENEL (ITA)
- ZSDNP - Czech Confederation of Coal and Oil Producers (CZE)
- APFCR - Coal Producers and Suppliers Association of Romania (ROU)
- BRGM - French Geological Service (FRA)
- CARBUNIÓN - Federation of Spanish Coal Producers (ESP)
- Coallmp - Association of UK Coal Importers (GBR)
- D.TEK (UKR)
- EPS - Electric Power Industry of Serbia (SRB)
- GIG - Central Mining Research Institute (POL)
- HBP - Hornonitrianske bane Prievidza (SVK)
- ISFTA – Institute for Solid Fuels Technology & Applications (GRC)
- Mátrai Kraftwerke (HUN)
- PATROMIN - Federation of the Romanian Mining Industry (ROU)
- Premogovnik Velenje (SVN)
- RMU Banovici D.D. (BIH)
- Swedish Coal Institute (SWE)
- TKI - Turkish Coal Enterprises (TUR)
- Ukrvuglerobotodavtsy - All-Ukrainian Coal Employer’s Association (UKR)
- Vagledobiv Bobov dol EOOD (BGR)
- VDKI - Verein der Kohlenimporteure (DEU)
- Coaltrans Conferences Limited (GBR)
- EMAG (POL)
- Finnish Coal Info (FIN)
- Golder Associates (GBR)
- Geocontrol (ESP)
- ISSseP - Institut Scientifique de Service Public (BEL)
- KOMAG (POL)
- University of Nottingham (GBR)
41% of the world’s electricity comes from coal

photo courtesy of the American Coalition for Clean Coal Electricity
Fuel sources for electricity generation, 2009

World: 20 055 TWh

EU-27: 3 178 TWh (15.8%)

- Lignite: 3.4%
- Hard coal: 37.1%
- Other: 40.5%

- Lignite: 10.6%
- Hard coal: 16.1%
- Other: 26.7%

Sources: IEA Key World Energy Statistics 2011 and IEA databases
Coal industry across Europe, 2011

Launched in the European Parliament on 6 October 2011 by EURACOAL Vice President Mr. Phil Garner and hosted by Mr. Jan Březina MEP

17% of EU primary energy and 26% of EU electricity come from coal.
Coal-fired power generation in the EU, 2010

- **Source:** EUROSTAT database, updated 24 May 2012
- **Notes:** *coal includes coal products, **coal figures include peat.
Coal mining creates economic wealth in the EU

- 140 Mt hard coal
- 400 Mt brown coal
- Most important indigenous energy
- €27 billion annual value of energy
- 255 000 direct jobs
- ~2.5 indirect jobs for each direct one
- > 1 million jobs across Europe

In February 2012, Lubelski Węgiel „BOGDANKA” S.A. set a world production record from a face at the company’s mine near Lublin in east Poland. The company plans to double production to 11.5 million tonnes in 2014 when Bogdanka mine will become one of the world’s most productive deep mines.
EU Energy Summit 4 Feb 2011: 20-20-20 targets

- “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.”

Mr. Günther Oettinger
Commissioner for Energy

Sustainable Mining Development, 24 September 2012, Plovdiv – Slide 9
Energy Roadmap 2050, Dec 2011

- Five “illustrative” future scenarios
- Technology neutral
- Member States free to choose energy mix

“Coal in the EU adds to a diversified energy portfolio and contributes to security of supply. With the development of CCS and other emerging clean technologies, coal could continue to play an important role in a sustainable and secure supply in the future.”
EURACOAL calls for a 3-step clean coal strategy

1. Introduce state-of-the-art technology across the EU coal-fired generation sector to boost efficiency, enhance flexibility and reduce emissions.

2. Develop the next generation of high-efficiency, flexible technologies for coal-fired electricity generation.

3. Demonstrate and deploy CO₂ capture, transport and storage – as less integrated and therefore less complex activities – at coal-fired power stations around the world, in tandem with CCS for other fuels and other sectors.

CO₂ reduction potential at hard coal fired power plants by increased efficiency and CO₂ capture & storage (CCS)

source: VGB
Conclusions

- Energy Roadmap 2050 is a political paper and marks the start of a two-year debate before the long road ahead.

- Commission respects Member States choice of energy mix and use of indigenous energy resources.

- Internal energy market will become more important – EURACOAL supports an open market in which coal can compete.

- Energy security and competitiveness are major concerns: existing coal-fired plants provide a solid base. Modernisation to improve efficiency and flexibility is key.

- CCS is a major issue for Europe – a new approach is needed that separates the capture – transport – storage steps to reduce project complexity. A CCS infrastructure would pull projects forward: an “infrastructure-first” approach.
Thank you!

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