FOSSIL FUEL FOUNDATION OF AFRICA

THE ROLE OF SOUTHERN AFRICAN COAL IN THE FUTURE CARBON-CONSTRAINED WORLD ECONOMY

Part 2:

Will the coal industry survive to 2050?

Wednesday 28th July 2010
Glen Hove Conference Centre, Melrose, Johannesburg, South Africa

Southern Africa is well endowed with significant reserves of coal, and this has led to its wide usage for power generation, coal-to-liquids, metallurgical processes and a host of smaller scale industrial activities.

However the era of cheap fossil fuels is coming to an end; at the same time global pressures to reduce greenhouse gas emissions, and hence limit the effects of climate change, are requiring a drop from today's emissions of 6.7 tons for every person on Earth to 1.6 tons by 2050. Coal alone accounts for 1.8 tons today.

The coal industry should take no comfort from the lack of formal agreement at the 2009 Copenhagen Climate Conference. The reality is that climate change is firmly on the world's radar screen and the coal industry is a target.

The industry should also take no comfort from the perceived problems of the alternatives - that nuclear energy has high capital costs and that renewable sources aren't quite ready. Without significant increases in coal combustion efficiencies and successful carbon capture and storage, the industry won't make it to 2050.

Hence there are huge life-or-death challenges ahead for the coal industry, unlike the incremental developments of the past.

This is not "another conference". The coal industry is under threat from climate change response measures. If you have an interest in the coal industry and its fortunes you need to attend.

This conference is the second of two events. Part 1 was held in November 2009 and was highly successful in setting the scene for the crisis ahead for the coal industry.

Since November 2009 the world has moved significantly. The US and South Africa are talking about renewed support for nuclear programmes. South Africa has had some difficulty in raising finance from the World Bank to complete coal-fired Medupi due to environmental concerns related to climate change. South Africa is drafting policy and legislation for emissions accounting and carbon related market based instruments to be implemented by 2012. All this has negative implications for coal.

Role of Coal Part 2 will focus directly on the main issues ahead:

- Latest and forthcoming international & regional regulatory & policy development
- Coal industry mitigating actions
- Developments on the South African Coal Road Map – an effort by the major producers to address all the issues facing the supply of and demand for Southern African coal
- Applicability of and impact of alternative energy sources such as nuclear, solar and wind
- Government's latest electricity and energy plans
- International trends regarding climate change mitigation

Who should attend?

- Coal producers and users
- Government
- Alternative energy producers
- Energy efficiency managers
- Marketing directors
- Environmental consultants
- Researchers and technical innovators
- Project developers and constructors

If you have an interest in understanding how the world will move away from using fossil fuels to a carbon-constrained economy you need to attend.

Some of the topics to be covered

1. The two problems – the world is running out of cheap fossil energy, and climate change
    - The use of fossil fuels is only a 400 year blip in the greater scheme of history; they will run out soon. There are varying prognoses on when this will happen, both for total primary energy demand and for coal
    - Quite apart from the climate change effects of fossil fuels, other energy sources will have to be developed
    - Reducing the demand for energy and energy efficiency

2. The transition to a low-carbon future
    - The transition to a low-carbon future is inevitable and will involve two stages. The first is one of continued fossil dependence and the second is a revolution in energy technologies and the way we manage energy usage.

3. The realities of climate change
    - The latest science
    - Global warming, leading to climate change, caused by human emissions is not yet certain scientifically, but it is a political fact – the great majority of governments are now moving to reduce emissions
    - Since it looks like we are causing climate change, even if it is only probable rather than certain, and since the consequences are so horrific, we need an insurance policy against this catastrophe that may never happen.
    - The world needs to adjust its behaviour to try to avert that threat.
    - On top of that, we need to start developing sources of energy for the day that fossil fuels run out.

4. International agreements on climate change
    - Copenhagen (December 2009) - what happened / didn't happen
    - Regional and bilateral agreements relevant to South Africa
    - What is likely to happen next
        - Cancun (November 2010)
        - South Africa (November 2011)
    - Other relevant international development: US, EU, BASIC and China

5. South African developments
    - The South African government has given strong signals that the country's energy intensity is no longer sustainable and has started to outline its low-carbon-economy vision
    - Green paper on Climate Change Response Policy (June) and a White Paper before the end of the year: policy development
    - IEP / IPAP / IRP
    - Current and pending tax related legislation and policy
    - Emissions inventory

6. Coal industry mitigation actions
    - Combustion efficiency
    - Underground coal gasification
    - Carbon capture & storage
        - Carbon capture and storage (CCS) is a transition measure between South Africa's reliance on fossil fuels to a greater reliance on nuclear or renewable energy forms

7. Alternative energy sources
    - Applicability of and impact of alternative energy sources such as nuclear, solar and wind

8. Reserves and resources update

9. Demand update
    - Sasol demand
    - Eskom demand
    - Export demand

10. Supply chain issues
    - Road and rail transport, ports

11. South African Coal Road Map
    - Developments on this effort by the major producers to address all the issues facing the supply of and demand for Southern African coal

The International Energy Agency World Energy Outlook 2009 shows the following levels of world coal production:

- 2008: 6,800 Mt (actual)
- 2015: 7,400 Mt (forecast) (peak)
- 2020: 7,200 Mt (forecast)
- 2030: 5,500 Mt (forecast)

12. Social and health issues
    - The effects of coal
    - Threats arising from climate change-induced increased energy costs

13. Water
    - Overview of the looming water availability crisis and implications for coal industry : difficulties to get water licence and EIA

14. The role of carbon markets

Call for Papers

Presenters are invited to submit a title and one page abstract in MS Word format to the Conference Secretariat (robbie@rca.co.za) by 5 June 2010. Papers may be accepted either as oral presentations or posters. Notification of acceptance will be sent by 28 June 2010 to the principal author (if several authors are included). Full papers or extended abstracts will be required by 9 July 2010 and these will be included in the conference book of abstracts.

Exhibitions

An exhibition will take place alongside the conference. Interested parties should please contact the Conference Secretariat: Ms Robbie Cameron
Tel +27 011 728 8173 • Fax +27 011 728 1675 • Email: robbie@rca.co.za • techevents@mweb.co.za

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Please contact the Conference Secretariat for details:
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FFF Role of Coal Part 2– Registration Form (28 July 2010)

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Surname		
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Your position in company		
Postal address *(for the invoice)*		
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REGISTRATION FEES Full Registration fees for the conference include: *Delegate folder, name tag, entrance to all sessions, abstract book & programme, CD of presentations, tea/coffee & lunch*			
If you attended the Role of Coal Part 1 (17 November 2009) you are entitled to a 10% discount.		Yes	No
FFF Member	R2 750.00 (incl. VAT)		
Non-Member	R3 000.00 (incl. VAT)		
Fully Retired Person/Full time Academic or Student	R1 500.00 (incl. VAT)		
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I wish to join FFF as a member?	R350.00 (incl. VAT)		
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Please note: if your registration fees have not been paid by your company by 19 July 2010, you will be personally liable for the full amount which must then be paid by 27 July 2010. Attendance is STRICTLY subject to prior payment.

An invoice will be issued on receipt of a completed registration form. Please forward a deposit slip or transfer form with the invoice number as a reference is required as proof of payment.
Please fax the registration form to +27 11 728 1675 or email to robbie@rca.co.za

CANCELLATION OF THIS REGISTRATION - Cancellation may be made in writing prior to 10 days before the conference; a 25% administration fee will be charged for cancellations made within 10 days of the conference. No refund or credit note will be issued if written cancellation is not received timeously. You will then remain liable for full payment of the invoice. Registrations are transferable.